ENTREPRENEURIAL ORIENTATION AND PERFORMANCE OF SMES IN NIGERIA. THE ROLES OF MANAGERIAL EXPERIENCE AND NETWORK TIES

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ENTREPRENEURIAL ORIENTATION AND PERFORMANCE OF SMES IN NIGERIA. THE ROLES OF MANAGERIAL EXPERIENCE AND NETWORK TIES

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Abstract

Researchers have argued that the results of the EO-performance relationship are context specific and not universal. They emphasize that the results are mixed and require further investigations to get context specific results in different economies to clarify and address inconclusive arguments. Again, the performance implication of EO is shown to be contingent on several factors, such as the firm network ties and manager’s characteristics, especially in developing countries. It would therefore be very necessary to ascertain the intervening factors influencing the EO-performance relationship in the Nigerian context. Drawing from the resource-based view (RBV) and the resource dependency theory, this research project investigated the moderating and mediating roles of managerial experiences and network ties on the relationship between EO and firm performance. The study applied the structural equation modelling techniques to analyse survey data from Nigeria between 2019-2020 and found that the performance effect of innovativeness and proactiveness is positively significant, while that of risk-taking is insignificant after introducing control variables, such as firm age, firm size, and the industry effect. This study further shows a positive mediating effect of business network ties on the relationship between entrepreneurial orientation (EO) and firm performance. However, the study found that political network ties do not mediate the EO-performance relationship. These findings give unique insight and useful knowledge on how business network ties create optimum benefits in enhancing firm performance in the Nigerian context. Again, this study advances empirical knowledge in the Nigerian context by confirming that managerial experience negatively influences the relationship between innovativeness and firm performance. Finally, the current study expands the EO literature by providing empirical evidence supporting the general assumption that EO positively relates to firm performance and that this finding is consistent across groups (e.g., gender and ownership status). This project contributes empirically to the extant literature in different ways, especially the unique insights and novelty of its findings in Nigeria.
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LIST OF TERMS AND ACRONYMS

SME: Small and Medium-Sized Enterprises
EO: Entrepreneurial orientation
RBV: Resource-Based View
RDT: Resource Dependency Theory
SEM: Structural Equation Modelling
DC: Dynamic Capabilities
RDT: Resource Dependency Theory
GDP: Gross domestic product
NAFDAC: National Agency for Food & Drug Administration and Control
CBN: Central Bank of Nigeria
CGS: Conditional Grant Scheme
PEDEC: Presidential Ease of Doing Business Council
GEMS: Growth and Employment Mobility in States
DFID: Department for International Development
FMTI: Federal Ministry of Trade and Investment
ANOVA: Analysis of variance
CFA: Confirmatory Factor analysis
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GLM:</td>
<td>General linear model</td>
</tr>
<tr>
<td>EFA:</td>
<td>Exploratory factor analysis</td>
</tr>
<tr>
<td>ML:</td>
<td>Maximum likelihood</td>
</tr>
<tr>
<td>RMSEA:</td>
<td>Root mean square error of approximation</td>
</tr>
<tr>
<td>RMR:</td>
<td>Root Mean Residual</td>
</tr>
<tr>
<td>SRMR:</td>
<td>Square Root Mean Residual</td>
</tr>
<tr>
<td>WRMR:</td>
<td>Weighted Root Mean Residual</td>
</tr>
<tr>
<td>CFI:</td>
<td>Comparative Fit Index</td>
</tr>
<tr>
<td>TLI:</td>
<td>Tucker Lewis Index</td>
</tr>
<tr>
<td>GFI:</td>
<td>Goodness-of-Fit Index</td>
</tr>
<tr>
<td>VIF:</td>
<td>Variance inflation factor</td>
</tr>
<tr>
<td>CMB:</td>
<td>Common method bias</td>
</tr>
<tr>
<td>AVE:</td>
<td>Average Variance Extracted</td>
</tr>
<tr>
<td>CR:</td>
<td>Composite reliability</td>
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Declaration

I, Nera Ebenezer Mansi, declare that this thesis, submitted in partial fulfilment of the requirements of the Manchester Metropolitan University for the degree of Doctor of Philosophy, is my original research work and has never been submitted anywhere by anybody for any degree or certificate award. I reserve all copyrights to this thesis.
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CHAPTER 1

INTRODUCTION OF THE STUDY

1.0 Chapter Overview

Chapter one presents the introduction of this research project. Followed by the statement of the research problem. It further highlights the aim and objectives of the study. Also, the potential contributions are stated. This chapter concludes by briefly explaining the research methodology, and the thesis structure.

1.1 Introduction

Small and Medium-Sized Enterprises (SMEs) contribute significantly to the growth of developing economies around the world (Abor and Biekpe, 2009). For instance, in Nigeria, over 90% of businesses have been reported as SMEs, and these firms account for 48.47% of GDP and 84.02% of total employment (Nigeria Ministry of Budget & National planning, 2017; Eniola, 2020). Studies in recent times from other countries have shown the importance of entrepreneurial orientation (EO) in positively influencing the performance of SMEs (Abor and Biekpe, 2009; Boso et al. 2013; Basco et al. 2020). Although, some scholars emphasize that entrepreneurial orientation could affect firm performance negatively in some contexts and advise that findings in this research area should be limited to the context of study (Rosenbush, et al., 2011; Anderson and Eshima, 2013). While many studies have been carried out in recent times from around the world on the impact of entrepreneurial orientation on SMEs performance, research in Nigeria is very limited in this domain. It would therefore be important to ascertain the effect of entrepreneurial orientation on firm performance in the context of Nigeria.
The concept of entrepreneurial orientation (EO) was first proposed by Miller (1983) and later expanded by the work of Covin & Slevin (1989; 1991). Miller (1983) conceptualisation of EO combined the three independent dimensions of EO, which include innovativeness, risk-taking, and proactiveness to form a single construct, and explains that “an entrepreneurial oriented firm is one, which engages in product market innovation”, invest in risky businesses, and it is first to initiate and implement proactive ideas to outsmart competitors (p.770). A later study by Anderson and Eshima (2013) defines EO as the firm’s “behavioural tendencies, managerial philosophies, and strategic decisions-making practices that are entrepreneurial in nature” (p.414). This implies that EO is a combination of behaviours exhibited by the firm, which influences decisions associated with initiating new methods of production, introducing new products and services, and entering to explore new markets (Chin et al., 2016).

EO being regarded as a set of firm’s innovative, risk-taking, and proactive behaviours is among the most widely known construct in the strategic entrepreneurship literature (Linton 2016). Despite the numerous research work directed to the EO construct, there are still important debates about EO that are yet unclear. One of these issues that remains a contention among scholars in the EO literature is that of conceptualizing EO as unidimensional construct or a multidimensional construct (Anderson et al. 2015; Chin et al., 2016; Rank and Strenge, 2018; Isichei et al., 2019; Olubiyi et al., 2019; Luu and Ngo, 2019; Basco et al., 2020). Scholars who treat EO as a unidimensional or composite construct integrate the different dimensions of EO (i.e., innovativeness, risk-taking, and proactiveness) to form a single construct, which together reflects the orientation of firms toward exhibiting entrepreneurial behaviours (Miller, 1983; Eniola, 2020). However, some researchers contend that aggregating the different components of EO to form a single construct causes ambiguity and confusion because
such construct does not clearly quantify the individual effects of each component (Chin et al., 2016; Rank and Strenge, 2018). To avoid the ambiguities associated to the unidimensional construct, the current study applies the multidimensional construct to separately ascertain the unique roles of the EO dimensions in affecting firm performance. Innovativeness, risk-taking, and proactiveness are the generally accepted constructs of EO and remain the most widely used dimensions of EO in the entrepreneurship related literature (Basco et al., 2020).

Although, many EO related research studies exist in the literature, a detail review on the EO literature by Wales et al. (2013a) pinpointed that majority of these studies fail to identify and properly explain the theoretical foundations guiding their studies. Therefore, to strengthen the theoretical foundation, this study followed some researchers who applies the resource-based perspective as the theoretical ground to establish their arguments, while examining the performance effect of EO (Newbert, 2007; Wiklund and Shepherd, 2011; Anderson and Eshima, 2013). The current study will apply the resource-based view (Penrose, 1959; Barney, 1991) and the resource dependency theory (Pfeffer and Salancik 1978) as the theoretical foundation to guide and enhance better understanding of the EO-performance effect relationship. The RBV proposes that if there appears signs of volatility and uncertainties in the business environment, firms should focus internally on their rare resources to gain competitive advantage, rather than trying to control and manipulate external pressures on the firm (Kamasak, 2013; Jiang et al., 2018; Isichei et al., 2019). This implies that firms are expected to maximise their internal resource base to gain competitive advantage in dynamic markets when faced with external forces and challenges beyond their control (Isichei et al., 2019).
The EO-performance relationship has been widely studied with majority of scholars supporting the positive effect of EO on firm performance (Saeed et al., 2014; Gupta and Wales, 2017; Isichei et al., 2019; Olubiyi et al., 2019; Basco et al., 2020). Although, the issues around the EO-performance relationship are constantly evolving. Some current research studies pointed out that many EO related research adopted a simple direct linear relationship to explain the performance effect of EO with less focus on the impact of other underlying factors affecting this relationship (Wales et al. 2013b; Isichei et al., 2019; Luu and Ngo, 2019; Basco et al., 2020). Wales et al. (2013b) who used Swedish data sample of 258 SMEs to investigate the EO-performance relationship confirms the importance of intervening factors in affecting the performance effect of EO. Specifically, they found that network capability, and information and communication capability reinforce the positive performance effect of EO. More findings from their study confirm that the absence of intervening variables such as network capability and information acquisition reduce the positive effect of EO on firm performance. Thus, they advise firms to exercise caution by putting into consideration those factors that affect EO, otherwise its performance effect could start to decline at certain levels. This argument has been reinforced by studies that found negative EO-performance relationship and those with insignificant results emphasizing that the EO-performance relationship may be contingent on several factors, which makes it more complex (Hughes and Morgan, 2007, Andersen, 2010). Based on this current thinking, the present study examines the influence of EO on firm performance, while putting into consideration the underlying mechanisms that affect this relationship.

Furthermore, some researchers argue that the EO-performance relationship appears to be contextual in nature as against a universally construed assumption of positive effect of EO on firm performance (Olubiyi et al., 2019; Isichei et al., 2019), emphasizing
that the positive effect of EO on firm performance could be more pronounced in business environment that are hostile and highly unpredictable (Rauch et al., 2009; Boso et al. 2013). A study in Nigeria by Lawal et al. (2018) explains that firms who rely exclusively on the formal institutions may find it difficult to succeed in Nigeria because the business environment is very hostile with weak institutional structures and high level of corruption. Surprisingly, little is known about the complex nature of the EO-performance relationship in the Nigerian context, where businesses barely survive due to the high level of market unpredictability and poor institutional frameworks (Lawal et al., 2018).

Studies suggest that entrepreneurial oriented firms could overcome the challenges of weak institutional systems and high hostility in developing markets by integrating informal structures such as political and business network ties to access useful and timely information that will support business success (Boso et al., 2013; Jeong et al., 2018). Although, growing evidence has confirmed the importance of network ties in developing markets, many studies have focused on the direct effect of network ties on firm performance, with little attention to examining the vital role of political and business network ties as mediating mechanism to the EO-performance relationship (Sheng et al., 2011). To address this gap, the current study argues that the effect of EO on firm performance in developing markets like Nigeria will be dependent on intervening factors such as interfirm collaborations and network ties with government institutions. In other words, the study posits that through political and business network ties, entrepreneurial oriented firms can gain access to social capital advantages such as financial resources and market knowledge to enhance better performance. Specifically, this study applied political and business network ties as intervening variables to mediate the relationship between EO and firm performance.
Another intervening factor considered in this study is managerial experience. Managerial experience is seen as a form of human capital because it supplies the firm with knowledge and skills gotten from experience (Mahoney and Kor, 2015). For example, knowledge about best suppliers and market opportunities, understanding of customers’ needs, information on products of high demand and specific technical skills (e.g., software applications) can come from experience (Reuber and Fischer 1999). The present study therefore emphasizes that top managers who accumulate a reasonably longer period of managerial experience are more likely to have extensive knowledge and skills that will enable the firm to strengthen its knowledge capabilities and skills to gain sustained competitive advantage for better performance. This study applies managerial experience as a moderating variable, which interacts with the different components of EO to strengthen their influence on the EO-performance relationship.

1.2 Statement problem

A viable and dynamic SMEs sector is considered necessary to the economic growth of any country especially in highly challenging and competitive business environment like the case of Nigeria. SMEs play a significant role in enhancing economic development particularly in creating employment (Eniola, 2020). However, uncertainties and challenges faced by business firms in recent times in the competitive environment have made it difficult for SMEs to record better performance. Evidence has shown a very high rate of business failures across the developing economies due to high uncertainties and harsh business environment. A study found that about 40% of SMEs fail within the first two years of starting business in developing economies (Sherazi et al., 2013). Scholars argue that business firms possessing entrepreneurial strategic posture tend to survive and perform better in highly competitive and
challenging business environment compared to conservatively managed firms (Anderson and Eshima, 2013). Evidence shows that EO as a firm-level behaviour enhances firm performance in dynamic and hostile business environments (Boso et al., 2013). Hence, this study examines the direct and indirect effects of EO on firm performance. By focusing on the roles of managerial experience and network ties in enhancing the EO-performance relationship.

Studies from other countries have shown that the influence of entrepreneurial orientation on firm performance is not universal, and that entrepreneurial orientation can sometimes affect firm performance negatively (Rosenbush, et al., 2011; Anderson and Eshima, 2013). It would therefore be necessary to ascertain the effect of entrepreneurial orientation on firm performance in the context of Nigeria. In addition to the direct association between entrepreneurial orientation and firm performance, there is increasing evidence that this association is contingent on other factors (Boso, et al., 2013; Lawal, et al., 2018) such as managerial experience and network ties (Su et al., 2015). However, studies on the mediating and moderating effects of these variables on the relationship between entrepreneurial orientation and firm performance remain scarce in Nigeria.

Scholars explain that enhancing the influence of entrepreneurial orientation on firm performance requires both human and financial resources (Covin and Slevin, 1991; Su et al., 2011). In other words, entrepreneurial orientation can only be translated into higher performance with sufficient availability of resources (Covin and Slevin, 1991; Zahra, 1991). A possible factor for the failure of SMEs to translate entrepreneurial orientation into higher performance is that they are not able to meet the resource requirement of entrepreneurial orientation (Hitt et al., 2001; Li & Zhang, 2007). Companies often need external resources to pursue business opportunities to expand
and possibly diversify business operations (Luo, 2003). Therefore, the access to both human and financial resources is critical to the performance implication of entrepreneurial oriented firms (Wiklund and Shepherd, 2005).

Managers apply network ties as a strategic tool in accessing resources from the external environment (Luo, 2003); thus, network ties could strengthen the positive effect of entrepreneurial orientation on business performance (Stam & Elfring, 2008; Walter et al., 2006). Some scholars have examined the role of networking on firm performance from different points of view. For instance, Walter et al. (2006) examined the influence of network capability on firm performance and found that network capability positively relates to firm performance in university spin-offs. In the same vein, Stam and Elfring (2008) investigated how the industry network affects the relationship between entrepreneurial orientation and business performance and found that the combination of high network and extensive bridging ties positively affect the relationship between entrepreneurial orientation and firm performance.

Although, previous research has enhanced our understanding on the impact of network ties on the relationship between entrepreneurial orientation and business venture performance, a research gap exists on the extent to which different dimensions of network ties (e.g., political and business network ties) mediate the relationship between entrepreneurial orientation and business venture performance (Simsek et al., 2003). Because different categories of networks function diversely in business firms, it is important to investigate the roles played by these variables, while evaluating the relationship between entrepreneurial orientation and firm performance (Peng & Zhou, 2005; Anwar et al., 2018; Sami et al., 2019). The reason is that it will assist in explaining in detail on the extent to which political and business network ties
affect the relationship between entrepreneurial orientation and firm performance (Stam & Elfring, 2008; Sami et al., 2019).

Network ties are found to have played important roles regarding the association between strategic firm capabilities and firm performance in developing countries with weak institutional frameworks, although the direction of their impact differs significantly across different countries (Wang & Chung, 2013; Sami et al, 2019). For example, political network connections have shown to play a positive role in enhancing firm performance in developing countries like Ghana (Acquaah & Eshun, 2010; Adomako and Danso et al., 2014; Danso et al., 2016), yet they have a negative influence in China, where the cost of maintaining political networks is found to be more expensive compared to the benefits obtained from such network ties (Su et al., 2015). In addition, Sami et al. (2019) found that only business network ties positively influence firm performance, while political network ties do not significantly influence firm performance in Iran. In Nigeria, the trend might be different because Adomako and Danso (2014) found that political network ties positively influence the relationship between regulatory environment and firm performance. Another study by Lawal et al. (2018) also applied data from Nigeria and confirms that informal network ties positively affect firm performance. However, this study differs from the above studies because it investigated in detail the extent to which the different dimensions of network ties affect the relationship between entrepreneurial orientation and SMEs performance.

This study further examined the moderating role of managerial experience, while ascertaining the influence of entrepreneurial orientation on firm performance. Empirical evidence shows that managerial experience influences the managers’ information processing and decision-making, explaining that managers who have spent more time in their previous positions (i.e., those with more managerial
experience) become more conversant with the decision-making process, gain greater knowledge and expertise, and stronger influence in the organisation (Finkelstein and Hambrick, 1996; Hambrick and Fukutomi, 1991). Generally, there are few empirical works regarding the moderating influence of managerial experience on the relationship between EO and SMEs performance in the Sub-Saharan Africa (Abor and Biekpe, 2009), particularly in Nigeria where the literature is extremely scarce. Consequently, this present study seeks to add to the literature by investigating the direct and indirect impact of entrepreneurial orientation on firm performance through the mediating effect of network ties, and the moderating role of managerial experience in the context of Nigeria.

1.4 **Aim and objectives of the research**

The aim of this project is to identify the direct and indirect influence of entrepreneurial orientation on firm performance, through the mediating role of network ties and the moderating role of managerial experience. Focusing on the aim of this project, the study seeks to achieve five specific objectives.

1. To critically investigate the effect of entrepreneurial orientation on firm performance in Nigeria.

2. To ascertain the impact of EO on political and business network ties.

3. To examine the effect of political and business network ties on firm performance.

4. To critically evaluate the mediating effect of political and business network ties on the relationship between entrepreneurial orientation and firm performance.

5. To ascertain the extent to which managerial experience moderates the influence of entrepreneurial orientation on firm performance.
This project will provide a wide range of empirically based evidence in attempt to proffer solutions to address performance challenges faced by Nigerian SMEs.

1.5 Potential contribution to knowledge

Several contributions are expected to evolve from this project as explained below:

The findings from the study will contribute to the literature regarding the impact of EO on SMEs performance. Again, drawing from the resource-based perspective and the resource dependency theory, the study will help clarify the arguments surrounding the roles of managerial experience and network ties on the relationship between EO and firm performance in Nigeria, and compare the findings with the existing results of other developing countries such as China, Iran, and Ghana.

Majority of existing research on the roles of managerial experience and network ties were conducted in developed countries with stable institutional frameworks, however, little attention has been placed on developing economies like Nigeria, which is well known for her weak institutional environment. Weak institutional frameworks inhibit smooth flow of resources such as finance, and market knowledge; hence, it calls for the need to apply informal network ties to facilitate access to these resources. Furthermore, considering the high failure rate of SMEs in Nigeria, the study will help firms to understand roles of managerial experience and network ties in improving business performance, especially in developing economies characterised by high uncertainties.

Besides theoretical contributions, this project could have strong practical implications on the firm and investors. The study could unearth the important role of EO as a strategic tool in enhancing firm performance. Second, it could help SMEs in Nigeria to have a clear understanding of how the different dimensions of network ties affect firm
performance in Nigeria, and how best to apply them to boost business activities, especially in acquiring resources to improve firm performance. Third, this project could help the human resource team to understand the need to sustain and improve business performance by hiring managers with high external connections in economies of weak institutional frameworks and high environmental uncertainty like Nigeria. Finally, SMEs investors and partners who intend to collaborate with Nigerian SMEs could consider choosing firms with strong EO, and business network ties because such SMEs could have higher chances of survival and growth in Nigeria.

1.6 Research approach and methods

The present study adopts the positivist philosophical stance. Positivists make normative statements and value judgements by asserting that values must be separated from facts. This paradigm takes an epistemological position, which explains that knowledge can be discovered through observing and measuring facts in a scientific way (Saunders et al., 2016). They use quantitative approach to gather and analyse data. The aim is to verify theory through hypothesis testing by applying deductive reasoning (Saunders et al., 2016). In the same vein, this research uses structured questionnaires to gather data from 310 SMEs in Nigeria. Statistical techniques were applied in evaluating the effect relationships existing between variables. Specifically, this study employed structural equation modelling techniques to validate measurement constructs and carry out regression analysis to investigate the direct and indirect effects of EO on firm performance. The EO-performance relationship was moderated and mediated by managerial experience and network ties respectively. Before testing the proposed hypotheses, issues relating to outliers, heteroscedasticity, non-normality, multicollinearity, reliability, and validity, were properly examined to ensure the data meets the required criteria for use. The study
used IBM SPSS 26 and Mplus 8.2 packages to carry out all analysis including data screening, confirmatory factor analysis, correlation analysis, multiple regressions, moderation analysis, mediation analysis and multigroup analysis.

1.7 Structure of the Thesis

Chapter 2: carried out a general literature review on the theoretical and conceptual foundations of the study. This chapter gives explanations on the resource-based view (RBV), resource dependency theory (RDT), dynamic capabilities, agency theory, stakeholder theory, entrepreneurial orientation (EO), political and business network ties, managerial experience, and firm performance.

Chapter 3: The study develops a conceptual model relating to the direct and indirect performance effect of EO on performance of SMEs in Nigeria. The literature leading to the development of hypotheses proposed in this study is discussed in detail. The chapter concludes by stating the hypotheses and presents a diagram showing the conceptual framework guiding the research project.

Chapter 4: This chapter discusses the research context of the study. It begins with a brief review of the Nigerian economic outlook and the major economic sectors. Other concepts such as unemployment and economic diversification are briefly discussed. The chapter continued by defining SMEs and discussing its importance and the challenges facing SMEs in Nigeria. It concludes by highlighting the government intervention efforts in improving SMEs activities in Nigeria.

Chapter 5: This chapter covers the philosophical underpinnings (e.g., research paradigm), research design, data collection methods, and analytical techniques employed in this research project. This methodology chapter further explains in detail
the analytical techniques used (i.e., structural equation modelling). It concludes by outlining the ethical issues associated to the study.

Chapter 6: The objective of this chapter is to test the main hypotheses using structural equation modelling and presents the relevant findings. This chapter is organized as follows: First, the overview of the study is briefly explained. Second, the descriptive results are presented. Third, confirmatory factor analysis is carried out to confirm the structure of all the latent variables in the model. The chapter concludes with the analysis and presentation of direct and the indirect effect results.

Chapter 7: The seventh chapter discusses the findings of this study. The findings are discussed in serial order, based on the hypotheses being tested to ascertain the direct effects of EO and its independent components (i.e., innovativeness, risk-taking and proactiveness) on firm performance, direct effect of EO on network ties (i.e., political and business network ties), direct effect of political and business network ties on firm performance, the indirect effects of political and business network ties on the relationship between entrepreneurial orientation and firm performance, the moderating effect of managerial experience on the relationship between entrepreneurial orientation and firm performance, and finally the direct effects of the control variables on firm performance.

Chapter 8: The purpose of this conclusion chapter is to present the summary of key findings and contribution to knowledge of this study. It further provides insights into managerial and policy implications of the findings of the research, and pinpointing some limitations related to the study. The chapter closes by highlighting the directions for future research.
CHAPTER 2

THE THEORETICAL AND CONCEPTUAL FOUNDATIONS OF THE STUDY

2.0 Introduction

This chapter is a general literature review on the theoretical and conceptual foundations of the study. It provides explanations on the resource-based view (RBV), resource dependency theory (RDT), dynamic capabilities, agency theory, stakeholder theory, entrepreneurial orientation (EO), political and business network ties, managerial experience, and firm performance.

2.1 Resource-based view (RBV)

The RBV proposes that if there appears signs of volatility and unpredictability in a business setting, firms should focus on, and direct their rare resources for a competitive advantage to improve firm performance rather than trying to manipulate or control external pressures on the business (Kamasak, 2013). Penrose (1959) who founded the RBV stressed that the effective use of resources in making managerial decisions in an organisational setting, not only offers a clear explanation of differences among business firms, but also empowers these firms with unique advantage over competitors. In addition, for a firm to gain advantages to sustain the competition, the transmission of these unique and rare resources to competitors should not be allowed because making resources to remain scarce and inimitable will help the firm to secure a sustained dominance of superior returns (Penrose, 1959). Following the work of Penrose (1959), another study by Wernerfelt (1984) greatly contributed to the development of the resource-based perspective by coining the term resource-based
view and emphasizes on the significance of the internal competencies of the firm. Wernerfelt (1984) explains that each firm possesses distinct resource endowment and capability to create business strategies, and to develop unparalleled competitive advantage in the markets. In addition, Barney (1991, p.116) who proposed the VRIN framework explain that competitive advantage is a persistent benefit of a firm, which competitors lack the ability to replicate. The VRIN framework was built to prove that a firm resource can be used as a unique strategic framework to gain sustainable competitive advantage provided it is valuable (V), rare (R), inimitable (I) and non-substitutable (N). Barney (1991) claimed that only resources that satisfy the VRIN criteria and can improve a firm's efficiency and effectiveness should be characterised as strategic resources. Barney & Hesterly (2010, p. 66) defined firm resources as ‘the tangible and intangible assets that are acquired and utilised by the firm to implement its strategies’. Some of these strategic resources identified by Barney et al. (2001) include: organisational processes, work routines, managerial capabilities, employee skills, and the knowledge base of the firm. Other research scholars agreed that firm resources are valuable, although, they contend that their usefulness depends on the business environment and the specific conditions of the context where the firm operates (Priem & Butler, 2001; Anderson and Eshima, 2013; Isichei et al., 2019; Olubiyi et al., 2019; Basco et al., 2020).

2.2 Dynamic Capabilities (DC)

According to Helfat et al. (2007 p.4), dynamic capabilities can be defined as ‘the capacity of an organization to purposefully create, extend or modify its resource-base’. The dynamic capabilities viewpoint postulates that business firms must integrate, reconfigure, and effectively utilise their dynamic resources and capabilities to reform or alter their resources to cope with market dynamism and high volatilities (Eisenhardt
and Martin, 2000). Fiol (2001) states that the use of only fixed set of resources to gain competitive advantage is no longer sustainable, therefore, firms should apply a mix of static and dynamic resources to strengthen their competitive position. Scholars in this area consider diverse organizational processes, knowledge acquisition, managerial skills, and business networks as core capabilities (Song et al., 2007; Amit & Schoemaker, 1993). Although Grant (1996) tends to agree with other scholars that organizational processes and routines are firm capabilities, he argues that the basic building block of capabilities is the knowledge possessed by firms. On the other hand, some studies see implicit knowledge within the organization as static intangible resources and emphasize that the mechanisms (e.g., social collaborative platforms and managers’ skills) that turn these static intangible resources into dynamic forms can be regarded as capabilities of the firm (Ambrosini & Bowman, 2009; Weigelt, 2013). Inferring from these arguments, Ambrosini & Bowman (2009, p. 32) emphasize that organizational processes and managerial skills are dynamic capabilities applied “to assess the firm’s extant resource base and transform it to create a new configuration of resources that can sustain competitive advantage”.

Helfat & Winter (2011) identified different types of capabilities as dynamic and non-dynamic (i.e., operational) capabilities and explain that these two types of capabilities differ in their purposes and affect outcomes differently. In a similar vein, Ambrosini & Bowman (2009) state that dynamic capabilities deal with the future, while non-dynamic capabilities are static and deal with the present. Several studies identified some specific examples of dynamic capabilities such as resource acquisition processes, business networking, customer relationships, marketing capabilities, supply chain management, managerial skills, and strategic decision making (Barney & Arikan,
2001; Shamsie et al., 2009; Holcomb, et al., 2009; Vorhies et al., 2009; Nath et al., 2010; Mahmood et al., 2011; Chari & David, 2012; Barney, 2012).

2.3 Resource Dependency Theory (RDT)

The resource dependence theory (RDT) proposed by Pfeffer and Salancik (1978) postulates that firms must engage in networks in the form of inter-firm collaborations and partnership with other key players (e.g., government officials, NGOs, community leaders, and financial institutions) in their environments to obtain support and resources for survival and sustainable growth (Barringer and Harrison, 2000; Alkuaiik, 2017). Firms faced with different kinds of threats from their external environments require support and critical resources to survive the fierce competition ahead of them (Barringer and Harrison, 2000; Castanias and Helfat, 1991; Simonin, 1997). The resource dependency perspective explains that one good way to acquire these useful resources is to create network ties with other firms and key players influencing the business environment (Alkuaiik, 2017).

According to Barringer and Harrison (2000), firms build inter-organizational network ties to achieve several targets. One, they believe that connections and collaborations with other firms, policy makers and business regulators will increase their market power to reduce the competition and possibly help to gain some level of market monopoly over certain products and services. Two, interfirm collaborations facilitate access to external resources that are rare and difficult to acquire because of the high cost or the rigorous process involved. For example, big pharmaceutical firms are known for building network ties with smaller pharmaceutical firms to exploit their innovative knowledge acquired through novel research. In some cases, they completely acquire the smaller firm to monopolize ground-breaking ideas and
breakthroughs from their research findings to foster business exploits. On the other hand, the smaller pharmaceutical firms form business network ties with big pharmaceutical firms to gain access to financial resources (e.g., trade credits), information technology (IT), better supply links, distribution networks and other logistics related benefits (Fisher, 1996). The proponents of RDT emphasize on the necessity to acquire critical resources, stating that for firms to gain competitive advantage for sustainable business exploits and growth, they must engage with the external business environment through collaborations and network ties to access needed resources (Barringer and Harrison, 2000).

2.4 Agency Theory

The agency theory is applied in explaining the relationship between the principals who are the owners of the firm and the agents being the managers who run the activities of the firm (Hill and Jones, 1992). The agency theory as explained by Jensen & Meckline (1976) is a situation where the principals engage and delegate the agents to pilot the business operations of the company on their behalf. The agents in this relationship are expected to maximize returns to the principals. However, in practice this may not always be the case because agents may commit moral hazards to the detriment of the principals who own the resources of the business (Lamont et al., 2018). Majority of agents run the business with a target to increase their own wealth and not that of the owners of the firm (Panda & Leepsa, 2017). For example, an agent may deliberately refuse to disclose areas of inefficiencies within the organisation that could hinder benefits such as pay increase, bonuses, and awards. Again, some managers would prefer to apportion huge amount of company funds to their personal
leisure trips and holiday rather than putting such money in training employees to acquire new skills and technologies to improve business operations.

The existence of conflicting interests between managers and owners of the business is an agency problem that could incur more cost to the firm. Agency related cost such as inefficiency, low productivity, and financial losses can be reduced to minimal level through good communication and network relationship between the agents and the principals (Panda & Leepsa, 2017). Another way to address the agency problem is to establish a proper governance system and make corporate policies that will align the interests of the principals and the agents (Eisenhardt, 1989). This means both the principals and agents must have similar interests that drive the company goals and objectives. Applying effective strategies to address the agency problem will reduce agency cost and improve company performance. Ahmed (2009) who examined data from 100 blue-chip companies for the period between 199 to 2001 confirms that the high level of managerial equity ownership reduces the agency cost. In other words, firm owners could avoid agency cost by participating in the management of their business.

2.5 Stakeholder Theory

The stakeholder theory proposed by Freeman (1984) emphasizes that firms should consider the various interests of all stakeholders in decision making because stakeholders play important role to enhance success in business operations. This implies that firms should first align stakeholders' needs, expectations, and welfare before taking any action (Freeman et al., 2021). Freeman (1984) explains that stakeholders are those who can influence and be influenced by the activities of the firm. Stakeholder theory has identified different
groups such as the company owners, employees, customers, suppliers, creditors, government, host communities and the society as stakeholders of the firm (Clement, 2005). This theory propose that firms can effectively create value if they establish a good relationship with stakeholders who can affect and be affected by their activities (Freeman, 1984). Hence, it is the top managers' role to form networks to enable them reach out to both the internal and external stakeholders to know their values, choices, and what will benefit or harm them, while carrying out business operations.

An effective rapport with internal stakeholders like firm owners, and employees will help to reduce conflicts, and criticisms that could lead to unproductivity and poor performance (Bosse, et al., 2009). Again, a good relationship with external stakeholders such as the customers, suppliers, creditors, government, host communities, and the society can help boost corporate reputation, patronage, loyalty, and improve ease of doing business (Clement, 2005).

2.6 The firm’s intangible resources

According to Chisholm & Nielsen (2009), the application of only tangible resources (e.g., financial, and physical resources) by firms to gain competitive advantage is no longer feasible in today’s dynamic business environment. They further explain that firms, which operate in highly dynamic markets rely more on intangible resources (e.g., timely and useful information) to achieve competitive advantage. Scholars suggest that intangible resources such as knowledge, technology, managerial skills, creativity, innovation, and networks are very crucial to organisation’s success, especially in highly competitive markets (Boso et al., 2013; Adomako and Danso, 2014; Isichei et
An earlier study by Barney (1991) insists that firms should redirect their focus on intangible resources rather than fixed resources to be able to effectively compete in a volatile business environment. Unlike fixed assets such as buildings and machines (i.e., tangible resources) that are depreciable, intangible resources are rare, imitable, valuable, and not subject to depreciation (Solow, 1999; Anderson and Eshima, 2013; Olubiyi et al., 2019). Hence, it will be more beneficial for firms to combine their fixed assets with intangible assets like human capital, good reputation, renown brand name, good business location, novel knowledge, social capital, network ties with customers, organisational culture, innovation, IT and skills as unique strategic choice to sustain competitive advantage (Ambrosini & Bowman, 2009; Chisholm & Nielsen, 2009; Palacios et al., 2009; Wang et al., 2009; Ray et al., 2013; Anwar et al., 2018; Nguyen et al., 2020).

As earlier explained from the resource-based perspective, the firm-specific intangible assets are very necessary for firm growth and should be desired to sustain the competition and enhance better performance (Chisholm and Nielsen, 2009; Surroca et al., 2010). Intangible resources have wider usage in scope and capacity compared to tangible assets because ‘they can be used simultaneously in more than one area without reducing value in other areas’ (Grant, 1996; Galbreath, 2004, p. 43). For example, an IT skill acquired can be used across several company branches at the same time, while tangible assets like land, buildings and machines acquired cannot be used simultaneously across branches. Again, competitors can hardly duplicate or substitute resources such as good reputation, brand name and novel knowledge due to the rigorous process and longer time involved in acquiring them (Barney, 1991; Amit & Schoemaker, 1993; Michalisin et al., 1997). In other words, they are rare and inimitable, unlike tangible assets that are easily available in the market. A study by
Teece (1998) concludes that a firm’s wealth creation ability in today’s volatile markets is dependent on the organisation’s culture, “the exploitation of technological know-how, intellectual property, brands, and the successful development and commercialization of new products and services” (p. 76).

2.7 Empirical studies drawn from the firm’s resource-based perspective

Scholars in various business-related disciplines such as entrepreneurship, strategic management, marketing, human resource management, innovation and project management have applied RBV as theoretical bases to guide their studies and to give theoretical explanations to the research findings (Tsai and Yang, 2013; Anderson and Eshima, 2013; Jiang et al., 2018). A study by Barney and Arikan (2001) reviewed the literature on RBV related studies and confirms that the resource-based perspective has been applied to explain different relationships across several disciplines in business research. They specifically pinpointed six key topics including: firm and industry effects; the influence of several firm resources and dynamic capabilities; corporate business strategies; international business strategies and firm strategic alliances (p. 146).

The RBV has been used as basis to explain the relationship between firm resources, capabilities, and business performance (Tsai and Yang, 2013; Jiang et al., 2018). A study by Aaker’s (1989) employed a qualitative approach to examine the relationship between the firm’s intangible resource and performance in the USA. Findings from interviews with firms’ CEOs in California reveal that resources such as customer orientation, good firm image and reputation, product and service quality, renown brand name and employee retention are sources of sustained competitive advantage. Although, despite the ground-breaking outcome in pointing out some intangible
resources that are important for better firm performance, some researchers criticized the study due to its theoretical and methodological (e.g., statistical analysis) weaknesses (Michalisin et al., 1997; Galbreath, 2004). In similar vein, Hall (1992, 1993) applied a survey data of 95 CEOs of firms in the US to investigate the benefits of 13 intangible resources in enhancing firm performance. They found that firm network ties, good reputation, quality products and services, organizational culture and employee know-how are very vital intangible resources for improving firm value and growth. However, Hall’s (1992, 1993) studies were criticized due to the lack of theoretical grounding and weak statistical analysis that failed to psychometrically evaluate the validity and reliability of survey constructs (Michalisin et al., 1997). Applying weak statistical analysis that could not properly examine the data can lead to misleading results due to data flaws. The current study, however, applies structural equation modelling (SEM) to address these common methodological weaknesses among research studies. SEM techniques tackle vital issues in statistical analysis. For example, applying SEM helps researchers to validate survey measurement constructs using either exploratory or confirmatory factor analysis techniques depending on the nature of inquiry.

Some researchers have pointed out that intangible resources are important intervening variables that influence firm performance. Powell and Dent-Micallef (1997) found that human resources moderate the relationship between IT and firm performance positively. Therefore, they advocate that scholars should not ignore the use of intangible resources as moderators and mediators to explain firm performance effect relationships. Similarly, Surroca et al. (2010) applied data from 599 companies gathered across 28 countries to ascertain the indirect effects of firm’s intangible resources on firm performance. Their findings confirm a positive indirect effect of
intangible resources such as organizational culture, human resources, good reputation, and innovation on financial performance. They, therefore, conclude that maximising the use of intangible resources improve firm performance.

Business network ties and social networking relationships as intangibles resources were investigated in recent years. For example, Mahmood et al. (2011) examined the effects of multiplex networking relationships such as buyer-supplier equity and network capabilities on firm financial performance and found a positive effect relationship. Acquaah (2012) supported the findings of Mahmood et al. (2011) after investigating the antecedents of firm performance based on data obtained from 106 firms in Ghana. He confirms that social networking enhances better performance.

Drawing from the resource-based view and resource dependency perspective to investigate the direct and indirect influence of intangible resources on firm performance is, however, the most important debate relevant to this study.

2.8 Entrepreneurial orientation as resource to gain competitive advantage and enhance firm performance.

The RBV has been applied in the literature as a theoretical base to explain the relationship between entrepreneurial orientation and firm performance (Wiklund & Shepherd, 2003; Anderson and Eshima, 2013). Wiklund & Shepherd (2003) investigated the role of EO on the relationship between firm’s knowledge-based resources and business performance. Their results confirm EO to be a valuable firm resource that enhances business performance. Specifically, EO interacts with knowledge-based resources and capabilities to gain competitive advantage for better firm performance. Findings by Newbert (2007) support EO as a resource capability that apply knowledge-based resources to identify new opportunities, initiate new technologies, products, services, and launching into new markets.
2.8.1 Defining the entrepreneurial orientation (EO) concept

Entrepreneurial orientation has widely received attention in recent times in the entrepreneurship literature. Several empirical works have been carried out on this concept (Wales et al., 2013b; Rank and Strenge, 2018; Isichei et al., 2019; Olubiyi et al., 2019; Luu and Ngo, 2019; Basco et al., 2020). Researchers conceptualised EO using different names such as entrepreneurial style, entrepreneurial behaviours, entrepreneurial intensity, corporate entrepreneurship, entrepreneurial posture, strategic posture, and entrepreneurial proclivity (Wiklund & Shepherd 2003; Griffith et al., 2006; Eniola, 2020). This clearly shows that scholars have not finally agreed on a generally accepted EO definition in the entrepreneurship research studies (Wales et al. 2013a).

Some research studies such as Basso et al. (2009) and Gupta & Dutta, (2016) traced the emergence of the EO concept to the earlier research activities (Mintzberg, 1973), Khandwalla, 1977) that see EO as the entrepreneurs’ character and lifestyle. Later, the EO concept evolved and is seen by researchers as a firm-level phenomenon rather than individual behaviour (Covin and Slevin, 1989; Lumpkin and Dess, 1996; Rank and Strenge, 2018; Isichei et al., 2019). Entrepreneurial orientation is seen as an embodiment of different kinds of firm related behaviours and acts aimed at introducing new processes, new production techniques, manufacturing new products lines, and exploring newly discovered market opportunities (Olubiyi et al., 2019; Luu and Ngo, 2019; Basco et al., 2020).

Earlier, the EO concept proposed by Mintzberg (1973) was treated as a managerial characteristics and disposition arguing on the premise that entrepreneurial behaviour
depends on the level to which business managers explore new market opportunities in volatile and dynamic business environments. Khandwalla (1977) supported Mintzberg (1973) by emphasizing that managers exhibit EO by taking risky and aggressive bold business steps. Miller and Friesen (1982) investigated the managerial disposition of EO by differentiating entrepreneurially oriented firms from the conservative oriented ones based on their managers’ motives and confirm that managers with high entrepreneurially oriented disposition influence firms’ innovative and risk-taking behaviours.

In contrast to the works of Mintzberg (1973), Khandwalla (1977), and Miller and Friesen (1982), Miller (1983) conceptualised EO as behaviours of the firm and not the employees’ disposition (e.g., managers disposition). Miller (1983:770) emphasizes that innovativeness, proactiveness, and risk-taking actions are firm-level characteristics such that an entrepreneurial oriented business organisation engages in innovation activities, undertakes somewhat risky projects or investments, and is “first to come up with proactive innovations” to outsmart competitors. This implies that entrepreneurial oriented firms exhibit innovative, risk-taking, and proactive behaviours. Innovativeness is an important component of EO, which focuses on novelty such as the introduction of new products, processes, and technological advancement via experimentation and creativity with intentions to commercialize those innovations in new market entry (Miller, 1983; Lumpkin & Dess, 1996; Basco et al., 2020). The risk-taking dimension of EO centres on decision-making processes and actions with uncertain outcomes such as firms venturing into new and less developed markets or by borrowing heavily to implement high-risk projects (Miller, 1983; Anderson et al. 2015; Basco et al., 2020). Proactive firms are known for taking actions ahead of
competitors, while anticipating future benefits in pioneering and exploring opportunities (Miller, 1983; Basco et al., 2020).

Lumpkin and Dess (1996) expanded the work of Miller (1983) by introducing the heterogeneity of EO, emphasizing that a firm can be considered to exhibit EO with one or more of its dimensions rather than relying solely on a single composite construct of its different components. For example, a firm that is not proactive can be considered entrepreneurial and exhibiting EO if highly innovative or continuously pursue risky projects. Again, Lumpkin and Dess (1996) suggested that each of the dimensions of EO has varying degrees of effect and should be studied independently to ascertain the exact amount of effect and to avoid shared effect issues. Research investigating the separate EO dimensions has confirmed different levels of effects (Hughes & Morgan, 2007; Lomberg et al., 2016). Research studies have identified some components of EO to include innovativeness, proactiveness, risk-taking, competitive aggressiveness, and autonomy (Lumpkin and Dess, 1996; Yaro et al., 2020).

2.8.2 The EO dimensions

2.8.2.1 Innovativeness

Innovativeness is regarded as a core component required for a business firm to be entrepreneurial (Lumpkin and Dess, 1996; Isichei et al., 2019). It connotes the willingness of firms in discovering and applying new ideas or approaches to improve products and services for market delivery (Isichei et al., 2019; Olubiyi et al., 2019). In other words, firm innovativeness is associated to the introduction of new processes, products, services, and technologies within an organisation (Cao and Zhang, 2011; Lee et al., 2018). Rauch et al (2009, p.763) defined innovativeness as the process of ‘engaging in creativity and experimentation that result in new products, services and
technological processes.’ An earlier definition by the European Commission (1996), splits the definition of innovation into three segments to enhance clarity: (1) innovation is seen as a continuous renewal and expansion or creation of new products, services, and new related markets; (2) identifying, introducing, and establishing new distribution and supply channels; (3) introducing new processes in management and organizing work to improve the workforce skills and the conditions of work.

Firm innovativeness is seen as a fundamental pillar for building competitive edge over other firms operating in the same industry and business environment because “it allows the firm to take advantage of consumers’ unending changing tastes and desires by meeting specific needs in any given market” (Isichei et al., 2019, p. 1222).

Innovation consists of different categories including product, service, process, and administrative innovation (Mavondo et al., 2005; Chen et al., 2016). While product innovation is targeted at generating new products and services to meet the needs and expectations of customers (Damanpour and Gopalakrishnan, 2001), process innovation introduces new processes into the market by incorporating the changes in techniques, tools, and software to improve the production and delivery methods (Bi et al., 2006). In this research work, innovativeness is believed to help firms to gain competitive advantage for better business performance (Tsai and yang, 2013).

According to Ng et al. (2012), innovativeness serves as a channel to integrate new products and processes to enhance business performance.

2.8.2.2 Risk-taking

Risk-taking is known in the entrepreneurship literature as a key characteristic of entrepreneurial oriented firms (Eisenhardt, 1989; Putnins and Sauka, 2019; Isichei et al., 2019; Olubiyi et al., 2019). Linton and Kask (2017) explain that EO firms are more
risk tolerant compared to other categories of firms. Risk-taking firms exhibit opportunity seeking behaviours by frequently making changes in their current strategies, while anticipating higher profits (March, 1991; Putnins and Sauka, 2019). Firm risk-taking behaviours largely reflect their willingness to deviate from well-known successful strategies to experimenting new choices with potential higher returns, and possibly providing for unforeseen losses of venturing into the unknown. In other words, high-risk oriented firms are more prone to pursuing new business opportunities with higher profits. However, risk-taking firms are expected to make timely and right decisions to achieve the expected high positive returns they anticipate for (Putnins and Sauka, 2019). A well calculated risk-taking behaviour based on fast strategic decision-making could support business firms in highly volatile markets to take advantage of the changes in the environment to improve performance (Eisenhardt, 1989; Putnins and Sauka, 2019; Isichei et al., 2019; Olubiyi et al., 2019).

Venkatraman (1989) defined risk-taking behaviour as “the extent of riskiness reflected in various resource allocation decisions as well as choice of products and markets” (p.949). While some empirical studies have conceptualised risk-taking as an individual trait exhibited by managers to influence business decisions (Hiller and Hambrick, 2005; Sitkin and Weingart, 1995), this project followed research work that applied risk-taking as a firm-level behaviour (Pérez-Luño et al., 2011; Anderson and Eshima, 2013; Boso et al., 2013; Putnins and Sauka, 2019).

Dess and Lumpkin (2005) identified three key types of risk-taking behaviours that firms exhibit: 1) the risk to take bold actions in venturing into unpredictable markets and technologies; 2) the risk of committing large amount of funds to invest in projects with uncertain outcomes; 3) the risk associated to bad management reputation, which
emanates from unsuccessful projects. In some instances, this could have negative implications on the managers’ future career.

High-risk business firms might likely commit more financial resources to implement risky and strategic project choices such as introducing new innovative products, processes, and technologies, and exploring new markets with a target for better profit performance (Lumpkin and Dess, 2001; Hoskisson et al., 2017). Firm risk-taking behaviours could be seen in various ways through the policies and practices of the firm (Liu et al., 2019). For instance, high-risk firms implement heavy borrowing policy (i.e., obtaining loans from banks) to fund business activities in developing countries where the business failure rate could be very high (Zhao and Lu, 2016). Risk-taking behaviours give firms the advantage to maximize market opportunities by making timely decisions to outsmart other competing firms (Boso et al., 2013). Although, high risk firms could perform poorly if they fail to properly evaluate their investment strategies and decisions (Isichei et al., 2019; Olubiyi et al., 2019).

2.8.2.3 Proactiveness

The concept of proactiveness as a component of EO has received more attention in the entrepreneurship literature in recent times (Lumpkin & Dess, 1996; Leischnig, 2018; Rank and Strenge, 2018; Isichei et al., 2019; Olubiyi et al., 2019; Luu and Ngo, 2019; Basco et al., 2020). Proactiveness helps the firm to set future targets that drive firm growth. Lumpkin & Dess (1996) emphasize that proactiveness is key to firm success because it enables the firm to benefit from the first-comer advantage of exploring the initial profits and other market opportunities. Proactiveness assists the organisation to anticipate and rightly predict future products and services that will meet
customer demands and make efforts in channelling them to the right markets (Kallmuenzer and Peters, 2018).

Several scholars have given definitions to the concept of proactiveness. Wang (2008) refers proactiveness ‘to how firms relate to market opportunities in the process of new entry and seize such opportunities to shape the environment (p.637). Rauch et al. (2009) defined firm proactiveness as ‘being opportunity-focussed and forward thinking when introducing new products and services to the marketplace and ahead of the competition and acting with future demands in mind’ (p.763). Proactive firms quickly respond to new opportunities by going ahead of competitors. Thus, they are regarded as market leaders that regularly monitor market changes and exploring the opportunities to shape the business environment and meet customer demands (Isichei et al., 2020).

The increasing interest of firms in taking proactive measures in the business environment, while engaging in strategic social networks and inter-organizational collaboration has triggered more attention on firm proactiveness in the social network literature (Anderson and Eshima, 2013). This network literature stream centres on how firms establish networks with one or more external partners with a target to gain competitive advantages by sharing firm resources and know-how (Anwar et al., 2018; Sami et al., 2019).

2.8.2.4 Autonomy

According to Lumpkin and Dess (2001, p.431), ‘autonomy is the ability of an individual or a group to independently implement an idea or a vision to completion stage’. A firm that exhibits autonomous behaviour embraces individual creativity by promoting new ideas (Yaro et al., 2020). Autonomy is seen as a self-driven behaviour geared towards
achieving set goals (Awang et al., 2009). Individuals who exhibit autonomy prefer to take decisions with less regard to the opinion of others (Lee, 1997). Ndubisi and Argawal (2014) see autonomy as the “authority to stick to one’s conviction” (p.457). Researchers has defined autonomy based on the leadership style and ownership structure (i.e., centralised nature of the leadership of the firm and how often the leaders delegate duties to subordinates) (Lumpkin and Dess, 1996).

2.8.2.5 Competitive aggressiveness

Competitive aggressiveness is regarded as the firm's propensity to aggressively compete with a target to outperform industry rivals (Hughes and Morgan, 2007). Firms with this kind of entrepreneurial behaviour exhibit combative posture and aggressively respond to competitors’ actions and moves to secure its competitive market position (Lumpkin and Dess, 2001; Yaro et al., 2020). For example, a firm with higher competitive aggressiveness could directly react to competitors’ price reduction strategy by reducing its own prices more than expected (Lumpkin and Dess,1996). Other strategies could include aggressive market entry with a product of higher quality compared to competitors, cutting production costs, expanding to new markets, and rendering additional support services (Ajamieh et al., 2016). These kinds of firms sometimes go as far as sending spies to view competitors' strategies to assess competitors' weak areas to take advantage (Yaro et al., 2020).

2.9 Firm network ties

Research on firm network ties has gained more attention in the business literature particularly in international business, human resource management, international marketing, consumer behaviour, strategic management, and entrepreneurship research (Harris and Wheeler, 2005; Anwar et al., 2018; Sami et al., 2019). Different
terms such as social networking connections, business networks, interpersonal relationships and ties, and political network ties has been alternatively used in the extant literature to define firm networks (Peng and Luo, 2000; Li and Zhang, 2007; Zhang and Li, 2008; Anwar et al., 2018; Abbas et al., 2019; Sami et al., 2019). In the entrepreneurship literature, firm network ties have been regarded as an important strategy for organizations to easily gain access to acquiring knowledge, information, and other useful resources for firm growth (Owen-Smith and Powell, 2004). According to Bjorkman and Kock (1995), firm network ties entail the networks of individuals and institutions that are connected through interactions with a target for social and business benefits in the form of resources and information exchanges. This implies that firm networking centres on informal social relationships that are geared towards creating impact on business performance. The broader notion of firm network ties includes firm relationships with other firms, business professionals, government officials, and friends and relatives of company staff (Zhou et al., 2007). Network ties are informal governance mechanisms that involve “executives' boundary-spanning activities and their associated interactions with external entities” (Geletkanycz & Hambrick, 1997: 654) with a target to minimise the negative impact of weak institutional frameworks (Peng, 2003). Firm network ties with government institutions and top management of other firms are used as major facilitator in boosting the effect of firm’s strategic orientation practices (Li and Zhou, 2010). A firm relationship with other key players in the industry could promote innovative environment through learning new processes and product techniques (Phelps, 2010; Soh, 2003).

The two most common kinds of firm network ties are political and business network ties (Li and Zhou, 2010). Both forms of network ties rely on personal interactions and informal social networks rather than formal procedures to gain access to resources
and facilitate cooperation for smooth transfer of such resources (Zhou et al., 2007). Political network ties are firm’s informal social connections with government officials in various levels of administration, including central and local governments, and officials in regulation agencies, such as tax or stock market administrative bureaus (Li, et al., 2009; Peng and Luo 2000). Firms in developing economies facing difficulties resulting from weak regulatory systems and institutional voids look for alternatives to maximise the benefits of their activities by employing political network ties with government authorities to gain preferential advantage in accessing timely market information and resources without institutional delays (Isichei et al., 2019; Baco et al., 2020).

Business network ties are firm’s informal social connections with business organizations such as buyers, suppliers, competitors, and other market collaborators (Sheng et al., 2011). Inter-firm business collaborations bring two or more autonomous firms together to plan and implement business operations to create mutual benefits (Lee et al., 2018). Business network ties rely on personal interactions and social networks, instead of formal contracts and arm’s-length transactions, to obtain resources and facilitate cooperation (Sheng et al., 2011). Entrepreneurial oriented business network ties as explained by Abbas et al. (2019, p.2) create a platform to establish ‘business relationships, identify, develop or act upon opportunities of business, share information and seek potential business partners for ventures.’ Leading firms use entrepreneurial business network models as strategic posture to gain competitive advantage in tapping into skills from external sources to enhance better business performance in dynamic and hostile markets (Abbas et al., 2019). Shared experience gained from business network ties help to build trust among transaction partners and to transmitting useful information to facilitate mutual benefits.
This can be seen in the case of IBM, Procter and Gamble, Hewlett-Packard and Dell that built inter-firm collaborations to reduce transaction costs and to gain joint competitive advantage (Lee et al. 2018). Such interfirm collaborations create room for risk sharing and collective access to firm resources (Mentzer et al., 2000; Park et al., 2004; Sheu et al., 2006).

Creating good relationship with supplier firms and customers is very important in building proactive and effective supply chain that could be more responsive to demand changes and improve the capability of the firm to quickly seize and maximise the use of market opportunities ahead of competitors (Mahoney & Kor, 2015). In emerging markets like Nigeria, where business-support systems are incipient, firms’ entrepreneurial activities can be facilitated through interfirm networks such as linking with managers from suppliers, customers, and competitor firms. Such network ties allow resource and information sharing; minimise transaction costs such as supply and distribution costs; reduce partner opportunism (Sheng et al., 2011). The literature confirms that EO firms adopting networking or alliance strategies are found to be successful (Yang and Meyer, 2019).

2.10 Managerial experience as human capital

Managerial experience is the past knowledge, skills, competencies, and capabilities acquired by a manager within a reasonable time in years (Mahoney & Kor, 2015). Workplace experience covers the individual’s knowledge on routines and the firm’s unique resources (e.g., explicit, and tacit knowledge of the various constituents and key stakeholders of the firm) (Kor & Sundaramurthy, 2009). Managerial experience seen as human capital has been employed in the management literature as professionals’ career experiences of managers, managerial experiences of board
members and international experiences of managers in multinational contexts (Carpenter & Westphal, 2001; Dietz & Bozeman, 2005; Kor & Sundaramurthy, 2009; Peng, et al., 2015), and Miller et al., 2015).

2.11 Firm performance

Measuring performance of SMEs is an important subject particularly in entrepreneurship research because it allows researchers and business practitioners to explore and find out ways to further develop SMEs and make meaningful contribution to the economy (Isichei et al., 2019). Performance can be defined as “the evaluation of the results of a particular behaviour within a specific context” (Herron and Robinson, 1993, p. 284). It is also viewed as the outcome of an action or the result of any activity (Slack, 1997; Simpson et al., 2012). The application of both objective and subjective variable measures in examining firm performance is widely documented in the business research literature (Haber and Reichel, 2007; Boso et al., 2013).

Strategy research categorized firm performance into financial performance (i.e., sales volume, profitability, and firm growth) and nonfinancial performance (i.e., product quality, service quality, customer satisfaction and market share) (Murphy et al., 1996). Lumpkin and Dess (1996) warned that researchers should not limit firm performance evaluation to one component such as profitability because doing that may mislead theory building. They advise that studies should apply both financial and nonfinancial measurement constructs, which incorporate all the aspects of firm performance to enhance better explanation of the result findings. Measuring financial performance has generally been operationalized in the entrepreneurship literature in terms of firm growth, annual sales volume, and profitability (Boso et al., 2013). Firm growth can be
measured as either growth in business turnover in years or growth in number of employees, while profitability is measured as profit or return on investment (Lerner et al., 1997; Pasanen, 2003; Simpson et al., 2012; Haber and Reichel, 2007). Both financial and non-financial measures of performance have been widely applied in business research studies (Simpson et al., 2012; Greenbank, 2001; Boso et al., 2013; Anderson and Eshima., 2013; Agwu, 2018; Isichei et al., 2019; Olubiyi et al., 2019; Basco et al., 2020).
CHAPTER 3

CONCEPTUAL FRAMEWORK AND HYPOTHESIS DEVELOPMENT

3.0 Introduction

Drawing on the resource-based view and resource dependency theory, the study developed a conceptual model to investigate the effect of EO on firm performance in Nigeria. The body of literature leading to the development of hypotheses proposed in this study is discussed in detail. The chapter concludes by stating the hypothesis and presenting a diagram showing the conceptual framework guiding the research project.

3.1 Entrepreneurial orientation and firm performance relationship

The entrepreneurial orientation construct has been widely applied in several studies within the strategic entrepreneurship literature (Slevin and Terjesen, 2011; Boso et al. 2013; Luu and Ngo, 2019; Isichei et al., 2019; Baco et al., 2020). Majority of the studies acknowledged EO as a firm-level construct, which positively affect firm performance (Casillas & Moreno, 2010; Soininen et al. 2012; Anderson & Eshima, 2013).

Casillas & Moreno (2010) used data sample of 449 SMEs in Spain to assess the effect of EO on firm performance. Their findings confirm that a direct positive and significant relationship exists between EO and firm performance. Soininen et al. (2012) used questionnaire sample of 194 owner-managed firms in Finland to carryout regression analysis aimed at ascertaining the effect of EO on the growth performance of owner-managed firms. Their results confirm that EO is positively related to firm growth. However, they found a nonsignificant relationship between EO and profitability. They further separated and tested the different components of EO and found that risk-taking has a direct positive and significant effect on profitability. Anderson and Eshima (2013)
adopted the RBV perspective to investigate 207 SMEs in Japan. Their regression analysis results support the direct positive effect of EO on firm performance. Their analysis also confirms that the EO-performance relationship is stronger for younger firms compared to older ones. Boso et al. (2013) investigated 203 SMEs in Ghana by analysing questionnaire survey data using hierarchical regression techniques. Their results show a positive relationship between EO and firm performance. However, they explain that the strength of this relationship is contingent on variables like social and business network ties. Tsai & Yang (2013) used a questionnaire survey data sample of 154 high-tech manufacturing firms in Taiwan and employed hierarchical regression analysis to examine the performance effect of EO. Their findings support a direct positive and significant effect of innovativeness on firm performance. Khedhaouria et al. (2015) tested hypothesis using questionnaire survey data from 256 French small firms to investigate the impact of EO on firm performance and found a direct positive and significant relationship between EO and firm performance.

Su et al. (2015) used questionnaire data from China comprising 84 new ventures. The results show a positive and significant effect of EO on new venture performance. Also, they found that the performance effect of EO is inverted U-shape. The inverted U-shape result suggests that firm performance will start to decline at certain high levels of applying EO. Additional analysis confirms that business network ties positively influence the relationship between EO and new venture performance, while political network ties negatively influence the relationship between EO and new venture performance. Fuentes-Fuentes et al. (2015) used questionnaire data from 111 women-owned SMEs in Spain to examine the effect of EO on firm performance. Their results confirm that the impact of EO for these types of SMEs significantly enhance firm performance. Yeniaras and Unver (2016) applied questionnaire survey data
sample from 344 SMEs in Turkey to test hypothesis based on the RBV perspective. After carrying out a regression analysis to examine the effect of EO on firm performance, they found a positive relationship between proactiveness and firm performance. Evelyn et al. (2017) employed data sample of 312 respondents for time 1 and, 270 respondents for time 2 in China to evaluate the impact of EO on firm performance. The use of survey data and financial statement data of firm performance show similar results. They confirm a direct positive and significant effect of EO on firm performance. Irwin et al. (2018) applied questionnaire survey to gather data sample from 100 US SMEs. After conducting regression analysis, the results show that EO has a direct positive and significant effect on firm performance. Agwu (2018) used data from 107 SMEs in Nigeria to investigate the performance effect of strategic management practices such as risk-taking and innovation. Their results confirm a direct positive and significant influence on the relationship between strategic management and firm performance. Jiang et al. (2018) used questionnaire survey data from 251 firms in China, and their results show a positive and significant relationship between EO and firm performance.

More recent studies have also confirmed the positive effect of EO on firm performance (Isichei et al., 2019; Olubiyi et al., 2019; Basco et al., 2020). Presutti & Odorici (2019) used 191 SMEs data from Italy between the periods 2005 and 2016 to investigate EO and performance relationship. The results confirm a positive effect relationship between EO and SMEs performance growth. They further assert that both social and business network ties influence firm performance growth. Jeong et al. (2019) assessed the impact of EO on firm performance by applying questionnaire survey data sample of 321 SMEs from South Korea. After, carrying out regression analysis using SEM, the results show a direct positive and significant effect relationship between EO and firm
performance. Olubiyi et al. (2019) applied survey data from 460 owner-managers in Nigeria to examine the impact of EO and its different components on firm performance. Their results confirm a direct positive effect of EO on firm performance (i.e., profitability). Isichei et al. (2019) applied data from 377 SMEs covering the six geopolitical regions in Nigeria to ascertain the effect of EO on the performance of SMEs. Their findings confirm that EO is positively related to firm performance. Basco et al. (2020) examined data across three contexts (i.e., China, Mexico, and Spain) by applying PLS-SEM to carry out multigroup analysis to investigate the performance effect of EO. The results confirm that the positive effect of EO on firm performance is consistent across contexts.

On the other hand, some studies have found non-uniform, negative and insignificant results, while examining the performance effect of EO (Naldi et al., 2007; Gupta et al. (2018; Luu and Ngo, 2019). Gupta et al. (2018) investigated the relationship between EO and firm value across five countries (i.e., US, UK, Australia, Canada, and Germany) between the period 2005-2008. After applying data from 234 firms to carry out regression analysis, the results show an insignificant effect of EO on firm value. However, they conclude based on their results that the relationship between EO and firm performance is contingent on other factors including organisational discretion. Hence, they advise firms to consider the underlying complex mechanisms surrounding the EO-performance relationship. They also emphasize that the context of study could as well be a factor affecting result outcomes.

An earlier work by Zahra and Garvis (2000) found that the performance effect of EO in hostile markets is nonlinear (i.e., inverted U-shaped). They, therefore, advise based on their findings that firms should exercise caution, while aggressively pursuing EO because EO could result to diminishing returns at certain threshold limits. This implies
that pursuing EO may not always benefit the firm at certain high levels. This argument was supported by Tang et al. (2008) after evaluating the EO-performance relationship within the Chinese context; an emerging economy. They insist that the results of the EO-performance relationship differ based on context and configuration. Based on their findings, they explain that the curvilinear U-shaped relationship between EO and firm performance could be attributed to the high cost of exhibiting EO in the Chinese context. Their results connote that too much pursuit of EO could cause harm to the firm. Another study by Kemelgor (2002) found a stronger significant effect of EO on firm performance among US firms compared to firms in Netherlands. Their results suggest that it is more beneficial pursuing EO with the US context than Netherlands; hence, they advise firms to consider the context, while pursuing strategic choices.

The above argument confirms that the relationship of EO and SMEs’ business performance may not often come out positive in certain research contexts and configuration. This implies that results may differ for developing economies and SMEs compared to developed economies and big firms respectively. Although, majority of studies supported the positive performance effect of EO, some studies argue that EO might not be universally beneficial. Therefore, it is imperative to carry out studies in different contexts to understand the complexities of the relationship between EO and firm performance. Based on the above argument this thesis examines in detail the effect of EO on firm performance among Nigerian firms (i.e., SMEs), while expecting a positive relationship.

3.2 The effects of EO dimensions on firm performance

To conform with the multi-dimensional nature of EO as conceptualised by Lumpkin and Dess (1996), a study by Hughes and Morgan (2007) investigated the independent
effects of EO components on firm performance and found from the results that innovativeness and proactiveness positively affect firm performance, while risk-taking was found to have negative impact on firm performance. Other studies also found similar results and support the argument that the EO dimensions should be studied independently because each of these dimensions have separate effects on outcome variables (Boso et al. 2013; Kreiser et al., 2013). A study by Short et al. (2010) found that innovativeness and proactiveness are positively related to firm market value, while results on risk-taking show a negative effect. A similar study by Olubiyi, et al. (2019) confirms that risk-taking and proactiveness have positive significant effect on profitability, while the result regarding the effect of innovativeness on profitability is not significant. This shows that studying the various components of EO separately could be more beneficial in identifying the exact effect of each of these dimensions on firm performance.

Another study by Kraus et al. (2012) supports the above argument after examining the influence of the EO dimensions on performance during the 2009 economic crisis and found that the interaction effect of market turbulence on the relationship between proactiveness and firm performance is positive, while market turbulence negatively affects the performance effect of risk-taking. Another study by Lomberg et al. (2017) empirically examined the shared bilateral effects among the EO components and found that only proactiveness positively affects firm performance, while the effect of innovativeness and risk-taking are insignificant. Their study also confirms a strong bilateral shared effect between innovativeness and proactiveness.

The conflicting findings on the EO-performance relationship have raised concerns that too much dependence on EO as a composite construct could be problematic because its independent components affect firm performance differently. Adopting a composite
construct may produce an opposing effect by these dimensions; hence, studying the EO dimensions separately could help to resolve such conflicts.

Also, the multi-dimensional evaluation of the independent effects of the EO components on firm-level outcomes has received little attention in past research work (Rank and Strenge, 2018). Therefore, considering the multi-dimensional conceptualisation in this study could contribute new insights to the EO literature. Again, to conclude that the EO-performance relationship is universally positive remains controversial and that empirical studies should rather be carried out in different contexts and groups to ascertain the specific outcomes. This is very important to consider since this study expects that the EO dimensions would influence firm performance differently across groups.

This thesis focuses on the three most widely accepted and used dimensions of EO (i.e., innovativeness, proactiveness, risk-taking) as earlier proposed in the work of Miller (1983). The present study applies a multidimensional construct to ascertain the independent influence of the three EO dimensions on outcome variables.

### 3.2.1 Innovativeness and firm performance

Innovativeness as key component of EO is considered vital for firm performance in a highly competitive and hostile business environment like the case of Nigeria and should be given priority by those firms that aim to effectively compete in such volatile and unpredictable markets (Zahra & Garvis, 2000; Isichei et al., 2019). The business environment is constantly changing, hence, for business firms to outsmart competitors and maintain first-mover advantages, they must recognize the important role of innovation (Lumpkin & Dess, 1996; Luu and Ngo, 2019). Innovativeness is regarded by majority of researchers as a firm strategic behaviour to create product or service
differentiation aimed at sustaining competitive advantage in rapidly changing economic conditions (Boso et al., 2013; Luu and Ngo, 2019; Isichei et al., 2019; Olubiyi et al., 2019; Baco et al., 2020). Innovative activities are important sources of institutionalised intra-firm learning to promote technological advancements (Dodgson, 1993), new product developments, integration of new processes, and in identifying and exploring new market opportunities (Zahra et al., 1999). Although, in both developed and emerging markets, firms require innovation to remain competitive in today’s fast-changing business environment. Moreover, the case of developing economies appears more critical due to high uncertainties surrounding these markets (Chan et al., 1990; Tsai & Yang, 2013).

Majority of the literature support the application of innovativeness as a performance enhancing strategy (Agyapong et al., 2018). However, innovativeness requires significant number of financial resources to carry out business related research & development. Investing in R&D could be very costly, especially for smaller firms with low capital base. Larger firms involve more in innovative activities to reduce the chances of firm failure and to gain competitive advantage for continuity and expansion of market share (Mckinley et al., 2014). A study by Cefis and Marsili (2005) confirms that innovative oriented firms have 11% higher survival rates compared to non-innovative firms. Innovative behaviour creates enabling environment for developing new products and processes that result to better business performance in the long-term (Roberts & Amit, 2003). Innovative oriented firms accumulate technology-based knowledge to gain and maintain competitive advantage in highly challenging and unpredictable business environment (Dodgson, 1991; Han et al., 1998 Luu and Ngo, 2019; Isichei et al., 2019; Olubiyi et al., 2019; Baco et al., 2020)
Drawing insights from the RBV, innovativeness as a resource is very important for enhancing better firm performance and expanding into new domains to increase firm market share (Zahra et al., 1999). Through innovation firms generate and add new knowledge to its existing knowledge base, which is a long-term investment in intangible assets that help to improve the firm market value (Lin et al., 2006). Casillas & Moreno (2010) investigated EO in detail by separating the various components of EO to ascertain their individual impacts on firm performance. They found that innovativeness directly affects firm performance positively. Agyapong et al. (2018) used questionnaire data filled by managers from 148 SMES (hotels) in Ghana to evaluate the effect of innovative capability on firm performance. Their findings from regression analysis confirm a direct positive impact of innovativeness on firm performance. Chin et al. (2016) found that innovativeness negatively affects firm performance after applying questionnaire survey data sample of 200 SMEs from China to investigate the performance effect of the various components of EO. Putnins and Sauka (2019) used survey data of 1020 sampled companies from three countries (Lithuania, Latvia, and Estonia) to investigate EO and firm performance. The results show that the effect of innovativeness on firm performance is not significant.

3.2.2 Risk-taking and firm performance

The relationship between risk and rate of return has long received attention in economics and finance (Bowman, 1980; Fiegenbaum and Thomas, 1988; Bromiley, 1991). Bowman (1980) considered the risk-return relationship as a paradox due to the support of early finance and economic theories underpinned by empirical studies confirming the positive association between risk and return on business investments. Within the entrepreneurship literature, some studies have supported this assertion by suggesting that business-related risk-taking positively affect firm performance (Covin
and Slevin 1989; Rauch et al., 2009; Soininen et al., 2012; Putnins and Sauka, 2019; Lawal et al., 2018; Olubiyi et al., 2019). Soininen et al. (2012) investigated 194 owner-managed firms in Finland to ascertain the performance effect of EO. After separating and testing the different components of EO, their results confirm that risk-taking has a direct positive and significant effect on profitability. Putnins and Sauka (2019) examined the effect of EO on firm performance and found that risk-taking has a direct positive and significant effect on firm performance. Lawal et al. (2018) gathered questionnaire survey data from 381 owner-managers of SMEs in Nigeria to evaluate the impact of risk-taking and informal network ties on firm performance. After carrying out regression analysis, their findings show a positively significant effect of both risk-taking and informal networks on firm performance. Olubiyi et al. (2018) also confirms the positive effect of risk-taking on firm performance in Nigeria.

However, there are some controversial findings regarding the risk and return relationship. Fiegenbaum & Thomas (1988) pinpointed that while a positive relationship exists between risk and returns for business firms with above-average performance, a negative relationship was found between risk and returns among business firms with below-average performance. Researchers explain that exhibiting very high risk-taking in certain contexts and configuration might be detrimental to business performance (Lumpkin and Dess, 1996; Isichei et al., 2019). In other words, risk-taking may likely become counterproductive in certain contexts and for firms already performing poorly. Risk-taking could carry high costs, which in some situation might outweigh its potential benefits in the short-term (Wiklund and Shepherd, 2005; Luu and Ngo, 2019; Isichei et al., 2019). This tends to agree with Kreiser et al. (2013) explanation that high levels of risk increase the likelihood of reducing the firm’s short-term returns.
Other studies could not find significant relationship between risk-taking and firm performance. A study by Casillas & Moreno (2010) found that the effect of risk-taking on firm performance is insignificant. Chin et al. (2016) applied survey data of 200 SMEs from China to examine the effect of EO on firm performance and found nonsignificant results on the effect of risk-taking on firm performance. A recent study in Nigeria by Isichei et al. (2019) also confirms the nonsignificant effect of risk-taking on firm performance. However, some scholars explain that risk-taking behaviours as key component of entrepreneurial orientation increases the chances of identifying new entrepreneurial opportunities for better firm performance (Putnins and Sauka, 2019; Lawal et al., 2018; Olubiyi et al., 2019). Hence, this study posits that risk-taking positively influences performance of SMEs in Nigeria.

3.2.3 Proactiveness and firm performance

Proactive behaviours of firm involve the act of taking steps ahead of the competition in challenging the status quo by initiating changes in its current way of operations and responding promptly to market changes (Sinkula, 1994). Proactiveness is the opportunity-seeking aspect of EO that anticipates future demand and positions the firm to take advantage of changing market conditions by providing necessary changes in its current strategies to outsmart competitors (Leischnig and Geigenmuller, 2018; Yang and Meyer, 2019; Isichei et al., 2019; Baco et al., 2020). By forecasting the volatility in the business environment, proactive firms can easily adjust in line with changing customer needs, hence making them very receptive to market signals (Morgan & Berthon, 2008; Anderson and Eshima, 2013; Boso et al., 2013; Baco et al., 2020). A firm can be more responsive rather than being reactive to future market trends by introducing new products and improving its strategies to seize new market opportunities and increase market share ahead of competitors (Lumpkin & Dess,
Majority of the literature view proactiveness as a competitive advantage yielding behaviour that creates business benefits on the short-term (Anderson and Eshima, 2013; Boso et al., 2013; Isichei et al., 2019; Baco et al., 2020). In other words, the literature supports the positive performance of proactiveness. A study by Casillas & Moreno (2010) confirms that proactiveness directly affects firm performance positively. Another study by Chin et al. (2016) evaluated the performance effect of EO and found that among the components of EO, only proactiveness positively affects firm performance.

However, a recent study on the performance effect of EO carried out by Putnins and Sauka (2019) found a nonsignificant result on the effect of proactiveness on firm performance, after investigating 1020 firms in Lithuania, Latvia, and Estonia. This implies that firms’ engagement in proactive behaviours might not always yield better performance outcomes (Albin & Foley, 1998). The mixed results in various findings of the performance effect of proactiveness makes it imperative to investigate this relationship in the Nigerian context.

### 3.3 The effect of EO on political and business network ties

Inter-firm collaborations create platforms for firms to acquire new knowledge for better business practices, new market opportunities and technological advancements (Sheng et al., 2011). Again, acquiring useful and timely knowledge through networks helps the firm to mitigate external threats (Watson, 2007). While the influence of political and business network ties on firm performance have been adequately researched (Guo et al. 2014; Rajwani and Liedong, 2015; Anwar et al., 2018; Abbas
et al., 2019), the application of firm network ties as dependent variables is scarce in the literature (Fang et al., 2015).

This study will investigate the impact of EO on political and business network ties. Wales et al., (2013b) emphasize that small firms with higher EO develop strong business and political network ties with other firms and institutions to acquire external support and resources to enhance better business performance. They further explain that small business firms would require legitimacy for their new products and service offerings. Thus, strong connections and collaborations with bigger firms make it easier to build such legitimacy and to employ it as a strategic resource to attract more business partnerships, facilitate business transactions, reduce transaction costs, and getting trade credits from business suppliers. Innovative oriented firms could as well involve in political network ties to influence regulatory bodies in making favourable policies to ease the process of product licensing, better product distribution channels and encouraging product promotions via the media to enlarge market share (Sheng et al., 2011).

The current study investigates the extent to which the three sub-dimensions of EO will differently affect political and business network ties. Jiang et al., (2018) used questionnaire survey data from 251 firms in China and found a positive relationship between EO and network resource acquisition. On the other hand, Rank and Strenge (2018) carried out a case study on 78 German firms and found that EO does not significantly influence network links to acquire brokerage positions. They further investigated the independent effects of EO components and confirm that risk-taking positively affects network connections to acquire brokerage positions, while innovative behaviour negatively affects network links to acquire brokerage positions. Based on
the existing literature, this study suggests that risk-taking, proactiveness, and innovativeness positively affect political and business network ties differently.

3.4 The effect of innovativeness on political and business network ties

An innovative oriented firm with strong inter-firm collaborations tends to have high chances of surviving in competitive markets because such partnerships and networks create room to scrutinize and compare useful information from different organisations to assess its veracity (Bell, 2005). Scholars explain that innovative oriented firms could perform better by strengthening their network ties with other firms (Kalish & Robins, 2006). A study by Li et al. (2009) emphasizes that firms with innovation orientations will engage more in acquiring innovative knowledge through socialization processes. In other words, they will increase both internal and external interactions through informal meetings to promote mutual exchange of useful knowledge and other resources. In the same vein, Zhao et al. (2011) argue that an innovative oriented firm tend to develop an ecosystem that supports information sharing and learning culture to develop knowledge capabilities for exploring business opportunities. Although, some of these studies focused more on the firm internal network links, their findings clearly suggest that innovative oriented firms are more likely to facilitate collaborations and network ties with other firms and several outside bodies such as governments and financial institutions. Based on the above, the present study posits that innovative oriented firms are more likely to increase their engagement in making collaborations and establishing stronger ties with external partners.

3.5 The effect of risk-taking on political and business network ties

The willingness of firms to initiate network ties with industry key players and other external actors in the business environment could depend on their level of business-
related risk tolerance. Building new relationship with other firms can be risky because some of these potential partners are aggressive business competitors with exploitative philosophies to benefit from others rather than being supportive. In some situations, network relationships could be harmful rather than being mutual or beneficial as shown from research (Jackowicz et al. 2014; Lee, 2019).

Companies build network ties with a target to gain competitive advantages for themselves or reduce the competition by deciding which key actor to include or exclude after examining the impact of their role in the business environment (Rank and Strenge, 2018). A study by Busenitz and Barney (1997) emphasizes that business firms acquire sensitive information to manage risk and uncertainties and protect their business by engaging in political and business network ties. Risk-taking decisions usually require more informal structures and routines for gathering information to select right strategic choices (Makadok & Barney, 2001). Again, firms tend to address information asymmetry issues by building connections to get more diverse and up-to-date information about strategic situations and the market dynamics (Boso et al., 2013; Lawal et al., 2018; Anwar et al., 2018; Sami et al., 2019). This helps firms to avoid severe valuation errors by making timely strategic decisions to capture any available opportunity (Lawal et al., 2018; Anwar et al., 2018). Finally, the opportunity to influence the resource (e.g., timely information) exchange to one's own advantage can increase the confidence of risk-oriented firms, while making risky decisions to invest in new technologies and highly volatile markets (Rank and Strenge, 2018). Going by the above explanation, the current study expects a positive influence of risk-taking on political and business network ties.
3.6 The effect of proactiveness on political and business network ties

Previous studies emphasize that proactive-oriented firms can speedily identify and exploit new business opportunities by acquiring useful and timely information if they strengthen their political and business network ties with key actors in the business environment (Slater & Narver, 1998; Luo, 2003; Eggers et al., 2013).

Proactive-oriented firms could reduce uncertainties in using new technologies to explore new market opportunities by establishing network ties that provide access to unique information on new innovative technologies and new market trends before introducing their products and services (Makadok & Barney, 2001). For example, proactive firms in developing economies act ahead of competing firms by using political network ties as an informal means of getting first-hand information prior to publicly announcing changes in business related regulations (Boso et al., 2013; Lawal et al., 2018; Anwar et al., 2018; Sami et al., 2019). Some studies in the entrepreneurship field have confirmed proactiveness as an important factor influencing firms’ strategic partnerships and collaborations (Wang & Rajagopalan, 2015; Luo, 2003; Eggers et al., 2013). Another study by Mitrega et al. (2012) shows that the abilities of firms to build and strengthen network relationships with outside partners enhances firm performance.

3.7 The effect of political network ties on firm performance

Political network ties involve the development of links and collaborations by top managers with government actors for the purpose of securing business benefits (Li & Atuahene-Gima, 2001; Zhou and Li, 2011; Anwar et al., 2018; Lawal et al., 2018; Sami et al., 2019). In the context of developing markets, findings on the impact of political
network ties on firm performance have generated unresolved controversies due to mixed and inconclusive results.

Some empirical studies have confirmed a positive effect relationship between political network ties and firm performance (Peng and Luo, 2000; Li and Zhang, 2007; Zhang and Li, 2008; Lawal et al., 2018; Anwar et al., 2018). A study by Peng and Luo (2000) shows that firm performance positively relates to political network ties between top managers and government office holders in China. Similarly, Acquaah (2007) confirms the positive effect of political network ties on business performance and explains that the impact differs across firms depending on the kind of competitive strategies the firms pursue. Lawal et al. (2018) evaluated the effect of informal network ties on firm performance, after using survey data from 381 owner-managed SMEs in Nigeria, they found a direct positive and significant effect of informal network ties on firm performance. Luo et al. (2007) applied survey data from 129 SMEs in China to examine the role of social network ties on firm performance. Their results found a direct positive and significant effect of political network ties on firm profitability and sales performance. They further confirm that social networks with government agencies, community leaders and social groups mediate the impact of SMEs inward internationalization on export growth. Guo et al. (2014) collected data from 195 Chinese firms to investigate the relationship between managerial political ties and firm performance. Their results indicate that political ties are positively related to firm performance. Again, they emphasize that political network ties enhance organisational regulatory legitimacy. However, they conclude that organisational regulatory legitimacy does not in turn improve firm performance.

Other studies also assert that political network ties have a positively significant influence on firm performance (Acquaah, 2007; Li and Zhang, 2007; Zhang and Li,
2008; Acquaah and Eshun, 2010; Sheng et al., 2011; Zheng et al., 2014; Guo et al., 2014; Rajwani and Liedong, 2015). Li and Zhou (2010) show in their study in China that networking with public institutions creates competitive advantage in cost leadership and product differentiation, which in turn helps firms to exhibit higher performance.

However, some studies argue that the influence of political network ties is dependent on the context of study (Sun et al., 2012; Zhou and Li, 2011; Sami et al., 2019). This means that in certain conditions and circumstances, political network ties will not always significantly enhance firm performance, and in some situation may even negatively affect firm value (Siegel, 2007; Sun et al., 2010; Sheng et al., 2011;). Findings by Li et al. (2009) confirm that top managers are unable to employ political network ties to positively influence firm performance. A similar study by Sun et al. (2010) emphasizes that extremely strong political network ties could create a firm over embeddedness that might result to negative outcomes. Jackowicz et al. (2014) used secondary data of 316 firms from Poland between 2001 and 2011 to examine the effect of political network ties on profitability. The results confirm that political network ties lower firm profitability and that this negative effect is even higher with multiple political networks. Lee (2019) applied multigroup analysis to examine the relationship between firm network ties (i.e., political and business network ties) and firm performance of family and non-family firms in the Chinese context. The study confirms that political network ties negatively affect firm performance. Their results further found that the negative effect of political network ties on firm performance is stronger for family firms than non-family firms.

Few scholars have found insignificant effect on the relationship between political network ties and firm performance. Sheng et al. (2011) applied survey data from 241
Chinese firms to evaluate the effect of political and business network ties on firm performance. Their results confirm that the effect of political network ties on firm performance was not significant. Sami et al. (2019) use survey data sample of 267 manufacturing firms in Iran to investigate the effect of political and business network ties on firm performance. Their findings show that political network ties were not significant. They explain that the insignificant effect of political network ties may be attributed to the unique context of Iran as an Islamic state comprising different cultural heritage. They emphasize that the research outcomes of network ties and firm performance are context specific, hence the variation of results in different empirical studies.

Most previous studies that examined the influence of political network ties on firm performance have drawn their arguments from theories based on developed economies (Lu et al., 2010). Examples of such theories are the resource-based view (RBV), resource dependence theory (RDT) and dynamic capability (Agyapong et al., 2017). However, considering the heterogeneity of developing markets, the current study applies these theories as guide to explain the role of firm network ties in influencing the EO-performance relationship in the Nigerian context (Wright et al., 2005). RDT characterizes the firm as a system that cannot operate in isolation (Grewal & Dharwadkar, 2002). In other words, the firm depends on the external environment for resources to survive. Hence, top managers take various steps to avoid or reduce the uncertainties facing the firm from the external systems. RDT views political network ties as firms’ informal means to manage strategically, the external threats that face them (i.e., harsh government policies and regulations).

The government represents a major force in the external business environment and should be taken seriously because the survival of any business to some extent is
interdependent on government policies and regulations, particularly in developing economies (Zhou and Li, 2011; Sami et al., 2019; Lawal et al., 2018). Therefore, RDT emphasizes that firms could form strong political network ties with government officials to reduce the stress of accessing resources controlled by public institutions (Pfeffer & Salancik, 1978). For example, political network ties can help firms to easily gain institutional advantages and support by securing resources such as land, loan capital, business permission licence and government funded trainings to enhance business growth (Bruton et al., 2010; Zhou and Li, 2011; Anwar et al., 2018). Also, political network ties may be helpful to firms’ key players to proactively recognize business opportunities and influence government officials to enact or adjust government policies and regulations in their favour (Bruton et al., 2010; Zhou and Li, 2011; Anwar et al., 2018; Lawal et al., 2018; Sami et al., 2019).

3.8 The effect of business network ties on firm performance

Scholars have recognized business network ties in the context of entrepreneurship as very important strategy for SMEs because both the start-ups and those in growth phases require serious attention due to the high business failure rate especially in developing economies (Zhou and Li, 2011; Lawal et al., 2018; Anwar et al., 2018; Sami et al., 2019). In other words, interfirm network collaborations could positively influence the survival and the success of SMEs for both start-ups and existing firms in developing countries. Business network ties provide business firms with useful market resources (Abbas et al., 2019). For instance, they offer crucial business secrets that are not obtainable in the public market domain (Poppo and Zenger, 2002, Sami et al., 2019). Again, they facilitate new knowledge transfer through learning in business meetings, workshops, and trainings (Sheng et al., 2011; Abbas et al., 2019). Another benefit is that business network ties in the form of good relationships with suppliers,
competitors and customers create business benefits such as reduced business transaction costs, easy access to trade credits, and timely knowledge on the customer changing demands (Anwar et al., 2018; Sheng et al., 2011). Finally, because a firm good reputation is reflected on its past behaviours and activities, socio-business network ties with reputable multinationals can help SMEs to retain network legitimacy within the business community (Rao et al., 2008). Network legitimacy is a unique resource that could quickly expand business operation by attracting new business partners, facilitating business transactions, and offering several other economic benefits (Dacin et al., 2007).

Considering from the theoretical perspective, the resource-based view emphasizes that SMEs compete and survive in turbulent markets through the optimal use of their resources and capabilities (Abbas et al., 2019). Business network ties are intangible resources, and SMEs take advantages of these resources to improve performance in competitive and dynamic business environments. In business network ties, firms work together with the targets of maximizing economic benefits through mutual exchanges of resources and capabilities (Ghosh and John, 1999; Sheng et al., 2011). Anwar et al. (2018) explains that inter-firm collaborations and strong network links cultivate mutual trust, commitment, and interdependence. Again, through business network ties, SMEs can reduce information search costs, avoid risks and uncertainties in highly volatile markets through expert advice and learning from external partners, and encourage responsible business activities by constraining firms’ opportunistic behaviours that are unethical (Zahra, 2005).

Reviews of the existing body of literature show that previous studies affirm a significantly positive effect of business network ties on firm performance. Sheng et al. (2011) studied the effect of political and business network ties on the performance of
241 Chinese firms and found that business network ties have strong positive and significant effect on firm performance. Sefiani et al. (2017) employed survey data from 365 SMEs to investigate the effect of networking on firm performance. The regression results show a direct positive and significant effect relationship between politico-business networks and firm performance. An additional analysis found that SMEs owner-managers use network ties to enhance their recruitment process to hire more experienced and competent personnel.

Sreckovic (2018) used questionnaire survey of 176 sampled firms to investigate the performance effect of networks and managerial capabilities of entrepreneurial firms. From their results they explain that networks are very important in creating competitive advantage in entrepreneurial firms. Their study confirms a direct positive influence of network capability on firm performance. Tretiakor et al. (2019) used questionnaire survey data sample of 285 respondents (128 from firms in New Zealand and 157 from firms in Scotland) to examine the effect of perceived importance of external network ties on firm performance. The results found that owner-managed firms considered external ties to be very important in enhancing performance specifically sales growth.

Lawal, et al. (2018) concentrated on the effect of informal business networking and risk-taking on small and medium scale enterprises (SMEs) in Nigeria using descriptive research design with a sample size of 381 covering owner/managers. After, employing structural equation modelling to test the hypotheses. The research shows the existence of positive effect of informal network ties on the performance of small and medium scale enterprise (SMEs) in Nigeria. Anwar et al. (2019) investigated 319 firms in Pakistan by carrying out a quantitative analysis with SEM using Amos 21 software package to analysed structured questionnaire data. Their results confirm a positively significant influence of business network ties on firm performance. Sami et al. (2019)
investigated 267 manufacturing firms in Iran and found that business network ties significantly and positively affect firm performance. Lee (2019) also examined the impact of political and business network ties on firm performance in Taiwan between the period 2013-2015. After applying data from 175 firms to carry out multigroup analysis, the results show stronger significance on the positive impact of business network ties on the performance of family-owned firms compared to non-family-owned firms. Sheng et al. (2011) found a positive relationship between business network ties and firm performance after applying data from 241 firms in China.

However, some past studies evaluated the effect of business network ties on firm performance and reported mixed results. A recent study by Abbas et al. (2019) used questionnaire survey data sample of 296 firms in Pakistan to evaluate the impact of entrepreneurial business network ties on firm performance. The findings reveal that the effect of business network ties on firm performance is not significant. Other earlier studies also confirm the nonsignificant effect of business network ties on business performance (Aldrich, 1994; Kregar, 2014). The inconsistent findings on the relationship between business network ties and firm performance calls for more investigation in this area. Accordingly, the study proposes a hypothesis supporting the positive impact of business network ties on firm performance.

### 3.9 The mediating role of political and business network ties on the relationship between EO and firm performance

Research has confirmed that the positive performance effects of EO depend on some conditions either external or internal firm-specific intervening factors (Lumpkin & Dess, 1996; Covin et al., 1994). Early research on the effect of EO on firm performance centred more on investigating the external environmental factors influencing this
relationship. Some scholars have shown that certain environmental conditions such as environmental hostility positively influences the EO-performance relationship (Covin & Slevin, 1989). This argument is supported by Frank et al. (2010) after examining the influence of environmental dynamism on the EO-performance relationship. Their results show that EO negatively affects firms operating in highly dynamic business environments. Another study shows that EO is positively related to firm performance among firms in emerging industries and not in mature industries (Covin and Slevin, 1990). This implies that pursuing EO under certain conditions may not be beneficial to firms. Some researchers evaluated the performance effect of EO across various industries (e.g., high-technology and low-technology industries) and confirm that firms in the high-tech industries apply more EO strategies than those in the low-tech sector (Covin et al., 1990). Covin et al. (1994) examined the interaction effect of a firm’s strategic mission on the EO-performance relationship and found that firms with strategic mission to increase market share performs better, while applying EO. This indicates that firm internal variables could as well influence the EO-performance relationship and therefore should not be ignored. Although, majority of early research on the performance effect of EO centred on external intervening variables influencing this relationship with little attention on the firm-specific internal factors (Covin et al., 1994).

Another argument to support the importance of examining intervening variables is that the influence of EO on business performance might not be significantly beneficial across different contexts. Some scholars argue that in certain situations and factors, high-level EO might reduce performance (Wales et al., 2013b; Luu and Ngo, 2019). To confirm this, Wales et al. (2013b) used Swedish data sample of 258 small firms (both survey and financial statements) and found that the effect of EO on firm
performance is inverted U-shape. This implies that the positive effect of EO may likely decline at a certain high point and possibly reduce to negative effect at very high level of EO. They specifically emphasize that the absence of intervening variables such as network capability and information acquisition reduce the performance effect of very high level EO. Therefore, firms, while applying EO as a strategic management practice are advised to exercise caution not to over depend on EO as a source of firm performance because it could decline performance at a certain level. They confirm that network capability, and information and communication capability as intervening variables reinforce the positive performance effect of EO. An earlier study by Sarkar et al. (2001) confirms the influence of firm size and market dynamism on the positive performance effect of proactiveness, emphasizing that this effect becomes weaker with increase in firm size and stronger with higher market dynamism.

The literature has revealed that some developing countries like Nigeria are known for weak regulatory structures, ineffective legal procedures in enforcing business contracts and property rights, and unpredictable environmental conditions (Sheng, et al., 2011; Adomako and Danso, 2014). Therefore, firms in these economies tend to rely on informal network ties to secure their investments (Peng, 2001; Boso et al., 2013). They actively seek ways to design alternative informal structures such as establishing political network ties with government officials and agencies to facilitate contractual arrangements and possibly gain easy access to necessary resources to enhance better business performance. Adomako and Danso (2014) emphasize that a major challenge facing economies in Sub-Saharan Africa is that the formal institutional structures including legal institutions have weak enforcement capacity, and the market mechanism are less developed thereby inhibiting economic exchange effectiveness. This therefore creates a high level of uncertainty for business activities to drive
(Acquaah and Eshun, 2010). To tackle these challenges, entrepreneurial firms resort to engaging in informal network relationships with government officials to enable easy access to information, knowledge, and financial resources to mitigate the high level of uncertainty within the business environment. Therefore, entrepreneurial firms in developing market economies such as Nigeria create network ties (e.g., political and business relationships) by establishing social relationships with external entities and managers of other business organisations (Acquaah, 2007). Hence, political networking with government officials in developing markets is important in reducing to minimal institutional barriers hindering business activities and providing quick access to resources and opportunities. In Nigeria, top managers of business firms develop personal relationships with top government office holders operating at different levels of government to favourably influence policies and regulations, and obtain valuable resources (Lawal et al., 2018). The establishment of informal network ties help to overcome the bottlenecks by offsetting “institutional voids” existing in the formal institutional systems and structures (Khanna and Palepu, 2006). In other words, network ties with government officials could facilitate access to capital resources; speedy certification and approvals of products that satisfy government required standards; create opportunities for securing government contracts (Adomako and Denso, 2014). Studies have explained that a firm’s external collaboration and network ties could be regarded as strategic resources, if well designed and rightly applied (Lavie, 2006; Stam & Elfring, 2008) because such networks can be unique to the firm and difficult for others to imitate or substitute (Galaskiewicz & Zaheer, 1999).

This present study insists that stronger network ties with government officials and managers of business firms can strengthen the performance effect of EO. Therefore, the study expects that the relationship between entrepreneurial orientation and firm
performance can be positively mediated by political and business network ties. This study responded to scholars’ suggestions that the relationship between the entrepreneurial orientation and performance may depend on contingent factors. Rank and Strenge (2018) added by explaining that network-based mechanisms could act as intervening variables in positively enhancing the relationship between the EO sub-dimensions and firm performance.

Empirical research studies have confirmed the importance of business-related network ties as channels for facilitating information and knowledge flows; creating awareness of market opportunities; building trust through referral endorsements to access new technologies; acquiring management skills; establishing business legitimacy and getting new business deals (Gould, 1994; Haahti et al., 2005; Zhou et al., 2007). Hence, this study intends to contribute to the literature by applying both political and business network ties as mediating variables to investigate the EO-performance relationship.

Studies have confirmed firm network ties to be important factors influencing business performance. Jiang et al. (2018) used questionnaire survey data from 251 firms in China to the investigate the role of network ties on the EO-performance relationship and found that network resource acquisition partially mediates the relationship between EO and firm performance. Results from Presutti & Odorici (2019) who applied 191 SMEs data from Italy show that both social and business network ties positively influence the relationship between EO and growth performance. Adomako and Danso (2014) employed questionnaire survey data sample of 372 firms from Nigeria to investigate the antecedents of firm performance. Their results confirm that regulatory environment is negatively related to firm performance in Nigeria. However, their results support a positive influence of political network connections on the relationship
between regulatory environment and firm performance. Based on their results, they emphasize that weak institutional frameworks could adversely affect firms in Nigeria, hence firm could seek for informal networks to facilitate business activities and enhance performance. Agyapong et al. (2018), carried out an investigation regarding the influence of political network ties on the performance effect of innovation capability, while applying data sample of 148 Ghanaian firms. The results found that the influence of political network ties on the relationship between innovation capability and firm performance was not significant.

3.10 The moderating role of managerial experience on the relationship between EO and firm performance

Research on human capital as a firm-level resource has gained more attention in recent times (Hatch & Dyer, 2004; Barney & Felin, 2013; Boon, Eckardt, 2018). Previous works have applied the RBV as guide to explain that human capital is a form of unique resource firms use in sustaining competitive positions (Kim, 2019). Based on this research stream, firms build human capital by developing and advancing employees’ knowledge, skills, and experiences (Coff, 1997; Ployhart & Moliterno, 2011). These unique inimitable and rare bundles of skills and experiences within the firm serve as important resources that satisfies the RBV requirement to maintain competitive advantage (Barney & Felin, 2013; Kim et al., 2019).

Top managers perform diverse tasks and responsibilities, increase their skills and knowledge, and develop their capabilities to confidently deal with various business-related issues confronting their firms (Carpenter, et al., 2001; Hambrick & Mason, 1984; Walsh, 1988). Previous studies show that managerial knowledge and skills are important human capital resources used by firms to enhance business performance
(Barney & Arikan, 2001; Shamsie et al., 2009; Mahmood et al., 2011; Mahoney & Kor, 2015; Luu and Ngo, 2019). This study therefore emphasizes that managers who acquire bundles of skills and knowledge via managerial experience are more likely to support the firm to strengthen its knowledge base and, build a leading and sustained competitive advantage for better performance. Firm resources, especially human capital resources are more useful if well organised as they rarely function in isolation.

To achieve maximum efficiency and benefits, the firm must create a friendly organisational echo system, where bundles of human resources interact with one another to create business value (Barney & Arikan, 2001; Shamsie et al., 2009; Mahmood et al., 2011; Chari & David, 2012). Again, the complementarities within the human capital base and other firm resources help to deepen the firm’s competitive advantage and performance (Mackey et al., 2014). The compatibility of perspectives, Knowledge, and skills, and how these resources are effectively organised among top management teams have significant implications for firm performance (Sheng et al., 2011; Ndofor et al., 2015). However, a study by West and Noel (2009) shows that the manager’s industry knowledge acquired and developed overtime through past managerial experience does not significantly influence firm performance.

The current study applies managerial experience as a moderating variable on the relationship between EO and firm performance. It is very important to acknowledge that the performance effect of EO depends on firm internal structures and business environmental factors. Therefore, considering the intervening factors that affect the EO-firm performance relationship would be very valuable and relevant for both the academia and professional practice.
3.11 Hypotheses

H1a: There is a direct and positive influence of entrepreneurial orientation on firm performance.

H1b: Innovativeness has direct and positive influence on firm performance.

H1c: Risk-taking has direct and positive influence on firm performance.

H1d: Proactiveness has direct and positive influence on firm performance.

H2a: There is a direct and positive influence of entrepreneurial orientation on political network ties.

H2b: Innovativeness has direct and positive influence on political network ties.

H2c: Risk-taking has direct and positive influence on political network ties.

H2d: Proactiveness has direct and positive influence on political network ties.

H3a: There is a direct and positive influence of entrepreneurial orientation on business network ties.

H3b: Innovativeness has direct and positive influence on business network ties.

H3c: Risk-taking has direct and positive influence on business network ties.

H3d: Proactiveness has direct and positive influence on business network ties.

H4: Political network ties have direct positive influence on firm performance.

H5: Business network ties have direct positive influence on firm performance.

H6a: Political and business network ties mediate the relationship between entrepreneurial orientation and firm performance.

H6b: Political and business network ties mediate the relationship between innovativeness and firm performance.

H6c: Political and business network ties mediate the relationship between risk-taking and firm performance.

H6d: Political and business network ties mediate the relationship between
proactiveness and firm performance.

H7. Managerial experience positively moderates the relationship between entrepreneurial orientation and firm performance. This hypothesis is divided into three sub-hypotheses:

H7a. Managerial experience positively moderates the relationship between innovativeness and firm performance

H7b. Managerial experience positively moderates the relationship between risk-taking and firm performance

H7c. Managerial experience positively moderates the relationship between proactiveness and firm performance

3.12 Conceptual framework

![Conceptual Framework Diagram]

Figure 3.1 Conceptual framework
CHAPTER 4

THE RESEARCH CONTEXT

4.1 A Review of the Nigerian Economy

Nigeria, a major regional player in West Africa and the most populous country in Africa, with approximately 206 million people mainly dominated by youths is a multi-ethnic and culturally diverse country consisting of over 250 ethnic groups with three major groups (Hausa, Yoruba, Ibo), which cover the bigger part of the population (National Bureau of statistics, 2020; World Population Review, 2020). The country operates a federal system of government having 36 states and the Federal Capital Territory (Abuja) (National Bureau of statistics, 2020). Endowed with abundance of natural resources, Nigeria remains the highest oil exporter in Africa, and has the biggest natural gas reserves on the continent (World Bank, 2020).

Among others, the current government has identified tackling unemployment issues, diversifying the economy, and improving the living standards of Nigerians as main policy priorities (Uzonwanne, 2015; Suberu et al., 2015; Offem et al., 2017; World Bank, 2020). A key strategy the government intends to use to address issues of unemployment and economy diversification is the encouragement of SMEs (SMEDAN survey, 2017). The government has recently taken positive steps to support SMEs by approving US $20 million to encourage innovativeness in the technological and agricultural sector (World Bank, 2020). In the same vein, the Central Bank of Nigeria has also approved NGN 90 billion (US $233 million) soft loan facility to promote small businesses in the agricultural sector (World Bank, 2020). Again, the government has introduced e-registration platforms to facilitate SMEs registration with CAC and National Agency for Food & Drug Administration and Control (NAFDAC). The
government also granted 80% discounts on registration fees to all SMEs for the period between 2nd May 2020 to 1st December 2020 to motivate SMEs to gain approval for food and drug production (World Bank, 2020). To reinforce the efforts of the Nigerian government, the World bank has provided US $200 million credit to enhance the productivity of SMEs in the agricultural sector (World Bank, 2020). These improvements are geared towards promoting business activities in Nigeria. This has improved the rank of Nigeria among 190 economies in the ease of doing business to 131 in 2019 from 146 in 2018, although the Nigeria rating remains poor (National Bureau of Statistics, 2020; PWC, 2020). The high level of oil price volatility continues to influence Nigeria’s government revenue performance and the GDP growth (Eniola, 2020). The period between 2000 and 2014, the average growth rate of Nigeria’s GDP was at 7% per year (Uzonwanne, 2015; Suberu et al., 2015; Offem et al., 2017; Owan et al. 2020). Unfortunately, the oil price collapse between 2014 and 2016, coupled with the negative production shocks decreased the gross domestic product (GDP) growth rate to approximately 2.7% in 2015 (World Bank, 2020; Abiodun, 2020; Eniola, 2020). This resulted to the worst recession in 25 years which hit the country and the economy contracted by 1.6% in 2016 (National Bureau of Statistics, 2020; World Bank, 2020 Abiodun, 2020; Eniola, 2020). In 2018, the GDP growth rate jumped back to approximately 2% and remained stable till the second quarter of 2019. Recently, the Nigeria GDP recorded an unpleasant growth rate of -3.6% in Q3 2020. This current poor performance is attributed to the global negative economic effect of the COVID-19 pandemic (National Bureau of Statistics, 2020).

However, considering the country’s high poverty level, the growth rate is too low to salvage the country’s populace out of poverty. Despite improvements in some sectors, employment creation remains slow and insufficient to assimilate the fast-growing
population dominated by young vibrant labor force. Hence, resulting in high unemployment rate of 23% as at 2018 (National Bureau of Statistics, 2020; Eniola, 2020). The high inflation levels adversely affecting the livelihoods of the populace has worsened the situation (PWC, 2020).

Economic growth and development negatively affected by high persistent inflation and rising public debt, thereby constraining private sector credit growth could be revived by accelerating the pace of structural reforms geared towards building institutional and policy frameworks for monitoring and managing the volatility of the oil and gas sector and developing the non-oil economy through encouraging entrepreneurship and human capital development to attain sustained growth (Uzonwanne, 2015; Suberu et al., 2015; Offem et al., 2017; Owan et al. 2020; Eniola, 2020).

4.2 Nigeria major economic sectors

Based on data from the Nigeria National Bureau of Statics' 2020 Annual Report, the study explains the level of performance of the various economic sectors in Nigeria as shown below:

1. **Mining & Quarrying:** This sector consists of all exploration activities in mining and quarrying of mineral resources such as crude petroleum, natural gas, metal ore, coal mining and other minerals activities. Based on the Nigeria National Bureau of statistics data, in Q3 2020, this sector growth declined by -13.2% compared to the growth (i.e., -6.6%) in Q2 2020. Although, these results are better than the growth (i.e., -19.4%) in Q2 2019. The mining and quarrying sector contributed a total of 8.9% to the overall GDP in Q3 2020. However, the current performance is lower than that of Q3 2019 and Q2 2020 recorded at 9.9% and 9.1% respectively (National Bureau of statistics, 2020). The data
further show that crude petroleum and natural gas remain the major contributors to this sector with 93.1% of the total sector contribution to GDP. The crude petroleum and natural gas contribute 70% to the Nigeria government revenues and 90% of Nigeria’s export earnings in 2019 (KPMG, 2020).

2. **Agriculture**: The agricultural sector involves crop production, fishing farming, livestock, and Forestry. Data from the National Bureau of statistics’ 2020 Annual Report confirms that this sector experienced a growth rate of 1.39% in Q3 2020 compared to 2.3% Q3 2019, a decrease by 0.89% points. This sector contributed 30.77% to overall GDP in Q3 2020. This is higher compared to 29.3% and 24.7% of the sector’s contribution to GDP in Q3 2019 and Q2 2020 respectively (National Bureau of statistics report, 2020). The agricultural sector contribution to the overall GDP is higher compared to all other sectors of the Nigerian economy.

3. **Manufacturing**: The Manufacturing sector covers activities such as food processing (e.g., beverages, drinks, bread and tobacco), cement production, oil refining, textiles, apparel, footwear, wood products, paper products, chemicals, pharmaceutical products, electricals/electronics, metal materials, motor vehicles and other manufacturing products. In real terms, the manufacturing sector GDP growth in Q3 2020 was estimated at -1.5%. This value is lower than Q3 2019 by –2.60% points. Real contribution to GDP in Q3 2020 was at 8.9%, compared to 8.7% recorded in Q3 2019.

4. **Construction**: This sector grew by 2.8% in Q3 2020 compared to 2.4% in Q3 2019. The contribution to GDP was calculated at 3.2% in Q3 2020, which is a little higher than 3.0% estimated in Q3 2019.
5. **Trade:** In Q3 2020, this sector growth rate stood at -12.1% and -1.5% in Q3 2019. Its contribution to GDP was estimated at 13.9% in Q3 2020 compared to 15.2% in Q3 2019.

6. **Accommodation and services:** In real terms, Accommodation and Food Services grew by -22.6% in Q3 2020 and 2.2% in Q3 2019. This sector accounted for 0.7% of total real GDP in Q3 2020, compared to 0.9% in Q3 2019.

7. **Information & Communication:** The Information and Communication sector comprises activities such as telecommunications, sound recording, music production, broadcasting, information services, publishing and motion picture. The information and communication sector growth rate stood at 14.6% in 2020 and 9.9% in 2019. The sector contribution to GDP was at 13.47% in Q3 2020 and 17.83% in Q2 2020.

8. **Transport and storage sector:** The Transportation and Storage sector covers several activities like air transport, water transport, rail transport, pipelines, road transport, post and courier services, and other transport related services. In Q3 2020, the sector growth rate was at -43.0% and 18.2% in Q3 2019. This sector contribution to GDP in Q3 2020 stood at 0.8%.

9. **Arts, Entertainment and Recreation:** Arts, Entertainment and Recreation sector growth rate declined by -4.7% in Q3 2020 from 2.9% in Q3 2019. The art, entertainment and recreation sector contributed 0.19% to GDP in Q3 2019 and remained the same in Q3 2020.

10. **Real Estate:** Real Estate sector growth rate contracted by -13.4% in Q3 2020 from -2.3% in Q3 2019. Its contribution to real GDP in Q3 2020 stood at 5.6% and 6.2% in Q3 2019.
11. **Finance and insurance**: The finance and insurance sector cover financial institutions and insurance services. This sector recorded a higher growth rate of 3.2% in Q3 2020 compared to 1.07% in Q3 2019. This sector contributed 2.7% to real GDP in Q3 2020 and 2.5% in Q3 2019.

12. **Administrative and Support Services**: Administrative & Support Services sector growth rate declined by -1.21% in Q3 2020 from 3.05% in Q3 2019. The sector's contribution to GDP was estimated at 0.02% in Q3 2019 and remained the same in Q3 2020.


14. **Education**: Education sector growth rate was at 1.19% in Q3 2019 and contracted by -20.74% in Q3 2020. The sector contribution to the total real GDP in Q3 2020 stood at 1.74%, lower than 2.12% estimated in 2019.

15. **Public Administration**: Public Administration sector growth rate in Q3 2020 was at 3.6% from 0.6% in Q3 2019. This is 2.97% points higher in 2020 compared to 2019. The contribution of the Public Administration sector to real GDP was recorded in Q3 2020 as 2.14 %, which is higher than 2.0% estimated in Q3 2019.

16. **Human Health and Social Services**: Human Health and Social Services sector stood at 2.8% in Q3 2020 compared to 0.7% in Q3 2019. This sector contribution to real GDP was estimated at 0.7% in Q3 2020, which is higher than the recorded figure in Q3 2019.
17. **Other Services**: Other Services growth rate stood at 1.0% in Q3 2019 and -7.5% in Q3 2020. This is -8.5% lower compared to 2019 figure. Their contribution to overall GDP was estimated at 2.41% in Q3 2020 and 2.52% in Q3 2019.

4.3 **Rate of unemployment in Nigeria**

Unemployment is when an individual remains without any paid work, yet actively seeking for job within a minimum period of 4 weeks or more (Fajana, 2000). It occurs when the labour supply is higher than the demand for labour. Unemployment is measured by the rate of unemployment, which is the number of unemployed individuals as a percentage of the total number of people currently in the labour force (i.e., both the employed and the unemployed) (Fajana, 2000). The high unemployment rate in Nigeria is associated to its high poverty level (Emeh, et al., 2012). The policies geared towards creating employment opportunities in Nigeria have not being effective in recent times as shown from the increase in the rate of unemployment (PWC, 2020). As at Q2 2020, the unemployment rate increased to 27.1% compared to that in Q3 2018, which was 23% (National Bureau of statistics, 2020). Njoku & Ihugba, (2011) in Nigeria explain that countries with high rate of unemployment could face several social vices if nothing is done to reduce it. They further pinpoint that people without work tend to become vulnerable to committing crime due to their struggle for means of survival. They specifically pinpointed that unemployment increases crime rate, social unrest, political instability, and poverty. Hence, they advise that government institutions should set up intervention schemes to support the unemployed and, boost employment opportunities if the rate of unemployment persistently increases.
Currently, the rising unemployment rate in Nigeria is posing a threat due to increasing issues of human trafficking, banditry, kidnappings, and terrorism across the country (Emerson and Solomon, 2018). These activities are prevalent among the young unemployed individuals and could be attributed to the higher unemployment rate among youths (Emerson and Solomon, 2018). In the Q2 2020, youth unemployment rate was 34.9%, which is 7.8% higher compared to the general unemployment rate. Specifically, in Q2 2020, the unemployment rate between 15 to 24 age group was 41% and that of age group 25 to 34 stood at 31% (PWC, 2020). This is obviously a red alert to Nigeria and should be addressed urgently, considering the continuous population increase in Nigeria, especially among young people. According to the UN data, the Nigerian population grew from 95.2 million in 1990 to 206.1 million in 2020, recording a growth rate of 116.5% within three decades (World Population Review, 2020). The increasing rate of unemployment has contributed to the high poverty levels in the country. The National Bureau of Statistics (NBS) reported that 40% of Nigeria’s population between the period Q3 2018 to Q3 2019, lived below the international poverty line of US $1.90 income a day representing about 82.9 million people living in poverty (National Bureau of statistics, 2020).

Adeyemi and Badmus (2001) explain that one of the solutions employed by developed countries to reduce unemployment rate is by promoting entrepreneurial activities and providing support and funding for small- and medium-scale enterprises. They advise that the Nigerian government should create the enabling environment to facilitate SMEs success and growth. Their findings confirm that up to 70% of SMEs in Nigeria fail or die within 5 years of starting business, and 15%-20% don’t survive after 6-10 years of existence. Only 5%-10% of SMEs survive and successfully grow to matured stage. The high level of SMEs failure is attributed to several factors including the
difficulty in doing business in Nigeria (Udechukwu, 2003). The current low ranking of Nigeria ease of doing business (i.e 131 out of 190 countries) shown in the World Bank Doing Business Index clearly confirms that the Nigerian business environment is very unfavourable to firms; thus, resulting to high failure rate of SMEs (World Bank, 2020).

4.4 Diversifying the Nigerian economy

Economic diversification involves the process of moving the economy away from depending on a single sector for revenue to different sectors and markets as sources of revenue (Owan et al. 2020). Investing in different sectors and markets will help to smoothen out some levels of risk, especially during economic recession by neutralising or balancing out the negative performance of some sectors with the positive performance of the other sectors (Uzonwanne, 2015; Suberu et al., 2015). Diversification can be applied to stabilize or grow an economy by expanding or introducing new product lines and entering new markets (Offem et al., 2017). Expanding the economy to cover sectors with high growth potentials can be beneficial, especially for developing countries such as Nigeria, which currently faces growth challenges (Suberu et al., 2015). The 2020 National Bureau of statistics report in Nigeria confirms that the Nigerian economy plunged into recession in the third quarter of 2020 after recording a negative growth of -6.10% and -3.62% in second and third quarter of 2020 respectively (National Bureau of Statistics, 2020).

Scholars advise that one of the best options for Nigeria to consider in addressing economic challenges is to apply an economic diversification strategy to move the economy away from relying majorly on oil export earnings by expanding into other sectors and boosting SMEs development to increase export output (Owan et al., 2020). Currently, the Nigerian oil sector comprises of 84% of total export earnings and
over 60% of government revenue for funding budget expenses. (World Bank, 2020; Abiodun, 2020; Eniola, 2020). The economic recession was partly caused by the sudden drop in oil prices between 2019 and the third quarter of 2020. This shock mounted pressure on the Nigerian government to source for alternative means of funding budgetary expenses, hence, they resorted to further borrowings that have currently raised the debt level to 20% compared to GDP as at 2019 (National Bureau of Statistics, 2020). The debt service cost has increased to 60% compared to the revenues (i.e., debt service to revenue is 60:1), which is far above the level recommended by the World bank (National Bureau of Statistics, 2020). The World bank recommended that the debt service to revenue should not exceed 22.5% for any developing economy to remain stable (PWC, 2020; National Bureau of Statistics, 2020).

Research studies identified some non-oil sectors like agriculture, manufacturing, education, hospitality and tourism, the ICT, and mining of other mineral resources as key sectors to boost earnings and, emphasize that Nigeria as a highly populated country with friendly climatic conditions for agriculture and tourism could maximise both domestic and foreign earnings opportunities from these sectors (Uzonwanne, 2015; Suberu et al., 2015; Offem et al., 2017). A successful economic diversification can help to reduce unemployment rate, build human capital development, create new market opportunities, boost foreign investment inflows, enhance technological advancement, and improve standard of living (Offem et al., 2017; Owan et al., 2020). However, a friendly business environment is very important for economic diversification to succeed. According to Onayemi and Ishola (2009), the diversification of the Nigerian economy to boost per capita income through export earnings can only succeed with favourable export policies, and competitive exchange rates. Similarly,
Owan et al. (2020), based on their findings, suggest that to enhance diversification, the Nigerian government should increase more efforts in creating a favourable environment for SMEs development by building good road networks, providing uninterrupted electrical power supply, making favourable business policies, promoting the use of best technologies, providing funding sources and creating export opportunities through good trade deals with other countries. Effective economic diversification in Nigeria demands a favourable business environment for active participation of various sectors and markets across different regions and possibly exploring markets in neighbouring African countries and other foreign countries to boost robust growth in both domestic and export earnings.

4.5 Small and Medium-Sized Enterprises (SMEs) in Nigeria

The European Commission (2016) defined SMEs based on the micro-, small-, and medium-scale firms as follows:

- Micro-enterprises are defined as enterprises that employ <10 persons and whose annual turnover or annual balance sheet total does not exceed EUR 2 million.

- Small enterprises are defined as enterprises that employ <50 persons and whose annual turnover or annual balance sheet total does not exceed EUR 10 million.

- Medium-Sized enterprises are defined as enterprises that employ <250 persons and either have an annual turnover that does not exceed EUR 50 million, or an annual balance sheet not exceeding EUR 43 million.

Small and Medium-Sized Enterprises (SMEs) as defined by the Central Bank of Nigeria (CBN) are economically independent companies with about 11 to 300
employees and an annual debit turnover of between N5million to N500 million (i.e., 14,000 to 14 million USD) (First Bank of Nigeria, 2017).

Table 4.1: Detail definition of SMEs in the Nigerian context.

<table>
<thead>
<tr>
<th>S/N</th>
<th>Firm Size</th>
<th>Number of Employees</th>
<th>Assets (Naira)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Micro</td>
<td>Less than 10</td>
<td>Less than 10 million</td>
</tr>
<tr>
<td>2</td>
<td>Small</td>
<td>10 - 49</td>
<td>10 million to less than 100 million</td>
</tr>
<tr>
<td>3</td>
<td>Medium</td>
<td>50 - 199</td>
<td>100 million to less than 1 billion</td>
</tr>
</tbody>
</table>


4.5.1 Importance of Small and Medium-Sized Enterprises

Small and Medium-Sized businesses form the fundamental foundation for economic growth and development by boosting industrial activities, generating revenue through taxes, increasing export output, creating jobs to reduce unemployment rate, reduce poverty and improve living standards, especially in developing economies (Arinaitwe, 2006; Harris and Gibson, 2006; Aremu and Adeyemi, 2011). Through SMEs, incomes are generated and distributed to firms and individuals (e.g., firm owners, investors, employees, suppliers, and other contractors) in the form of dividends, loan interests, rents, salaries/wages, royalties, fees, and other payments. Hence, they serve as mechanisms to decentralise economic power by creating and distributing wealth to the populace (SMEDAN Survey, 2017; Aremu and Adeyemi, 2011). Apart from creating employment and enhancing distribution of income and wealth creation for many households, SMEs serve as platforms for promoting entrepreneurial skills, capabilities, advancing new technologies and innovations, and acquiring managerial competencies through experience and trainings (SMEDAN Survey, 2017). They also serve as intermediaries in improving forward and backward links among big firms across
different sectors (SMEDAN Survey, 2017). For instance, small firms in the agricultural sector buy farm products from local farmers to supply to big firms for industrial processing, while other small firms in the retail sector get the finished products of the big firms to distribute and retail to individual customers in the cities and villages. According to Aryeetey and Ahene (2004), SMEs improve the effectiveness of domestic markets and maximise good use of scarce resources to promote industrialisation for sustainable economic growth in less developed economies.

SMEs have played major role in the Nigerian economy in terms of employment creation. According to the National Bureau of Statistics' 2020 Annual Report, SMEs consist of 97% of the total business firms in the country with above 86.3% of the total workforce, contribute about 50% of industrial production output and 95.1% of job creation in Nigeria (SMEDAN Survey, 2017; PWC Nigeria Survey, 2017; Eniola 2020). Given that majority of Nigeria’s households depend directly or indirectly on SMEs for survival and wealth creation, their useful role cannot be ignored. Hence, it is very important for a developing economy like Nigeria to encourage individuals to set up small businesses and possibly provide support such as funding, trainings and enacting good policies to promote growth and expansion of these categories of businesses (Aremu, 2004).

4.5.2 Challenges and barriers to SMEs success and growth in Nigeria

Research scholars have identified some internal and external factors negatively affecting the performance of SMEs in Nigeria. The internal factors include: 1) low capital base due to financial constraints; 2) poor market research; 3) lack of managerial experience; 5) inconsistent records due to poor book-keeping practice; 6) not treating the business as a separate entity; 7) lack of focus due to poor planning;
8) lack of competent staff; 9) lack of good entrepreneurial and managerial skills; 10) use of obsolete technology (Basil, 2005; Onugu, 2005; Salami, 2011; Udechukwu, 2003).

Some of the external factors against SMEs’ survival and growth in Nigeria include: 1) Lack of basic infrastructure such as roads, water, and constant electricity supply; 2) difficulty in accessing external funding due to high bureaucratic bottlenecks and barriers by government and financial institutions; 3) customer preference for foreign products over domestic products due to lack of trust in terms of quality on locally made products; 4) too much multiplicity of taxes and levies by different government agencies; 5) lack of business-related data and information to make timely decisions; 6) high cost of importing raw materials like equipment parts, particularly in sectors such as manufacturing and construction; 7) unfavourable business-related policies and regulations (Basil, 2005; Onugu, 2005; Salami, 2011; Udechukwu, 2003).

4.5.3 Government institutions and programmes for supporting SMEs activities in Nigeria

The SMEDAN Survey (2017:9-10) outlined some government institutions and programmes established several years ago by the Nigerian government to provide support and funding for promoting SMEs activities and growth. They include the following:

1. Mandatory Credit Guideline in respect of SMEs (1970)
2. Small Scale Industries Credit Guarantee Scheme (1971)
3. Agricultural Credit Guarantee Scheme (1973)
4. Nigeria Scheme (1971)
5. Agricultural Credit Guarantee Scheme (1973)
6. Nigeria Agriculture and Cooperative Bank (1973)
8. Rural Banking Scheme (1977)
14. Small and Medium Scale Enterprises Loan Scheme (1992)
15. Family Economic Advancement Programme (1997)
17. Bank of Industry (BOI) - being merger of NIDB, NBCI and NERFUND) in 2001
18. Peoples Bank and Family Economic Empowerment Programme (FEAP) in 2002
20. The Small and Medium Enterprises Credit Guarantee Scheme for MSMEs in 2010.

4.5.4 Recent government interventions to stimulate SMEs activities in Nigeria

According to the SMEDAN Survey (2017), the Nigerian government has recently set up some of the following institutions and programmes to support SMEs in promoting economic growth and creating employment opportunities as shown below:
1. The Nigerian government established the Conditional Grant Scheme (CGS) in 2017 to boost SMEs activities by providing conditional grants to promote capacity building and rendering post-intervention support services such as providing the markets, workspace, and the needed technology for better business performance.

2. The creation of the Presidential Ease of Doing Business Council (PEDEC) in July 2016 was aimed at removing bureaucratic constraints and other non-relevant barriers to doing business and making Nigeria a favourable place for businesses to succeed.

3. The Economic Recovery and Growth Plan (ERGP) launched in April 2017 was a medium-term strategy to promote human capital development, restore economic growth and build world class competitive economy through SMEs’ innovations and other business-related activities across different sectors.

4. The establishment of Development Bank of Nigeria to reduce financing constraints, providing funding and risk-sharing facilities for SMEs.

5. The Nigeria government established the Agri-Business Small and Medium Enterprise Investment Scheme (AGSMEIS) and mandated all Deposit Money Banks to retain 5% of their annual profits after tax for granting loans to SMEs in the agricultural sector to enhance job creation.

6. The establishment of N-Power scheme to reduce unemployment rate among youths and young graduates by engaging them in entrepreneurial and technical skills training to gain paid employment or start their own business.

7. Growth and Employment Mobility in States (GEMS): This project is funded by the World Bank and the UK’s Department for International Development (DFID) in collaboration with the Nigeria’s Federal Ministry of Trade and Investment.
The aim is to create 100,000 jobs through a diversification strategy into the non-oil sectors with high growth potentials including: construction and real estate, entertainment, ICT, wholesale and retail, meat production and leather, and hospitality and tourism. The project was to support and provide funds for SMEs in these sectors to develop and implement new business models, train the workforce (i.e., young Nigerians, and people living below the poverty line) for effective participation in both domestic and global supply chains. Also, to support these businesses to perform better by creating the enabling business environment.

Although, the Nigerian government has taken some steps in the past decades and in recent times to support the survival and growth of SMEs, yet the outcomes recorded to date are far below expectations (PWC Nigeria SMEs Survey, 2017). Research studies have shown that government support intervention strategies aimed at addressing poverty, inequality, and poor performance issues of SMEs in both developed and developing countries have not greatly improved the development and performance of SMEs (Hallberg, 2000; Tumkella, 2003; Ojo, 2003, Adekunle et al., 2020). According to Tumkella (2003), these intervention programmes failed to achieve the set targets due to several reasons including poor project evaluation and monitoring, poor management, and misappropriation of funds by fraudulent government officials, and contractors. However, research studies have confirmed the positive influence of entrepreneurial growth (i.e., the SMEs sector growth) on economic growth measured by GDP (Caree and Thurik, 2002; McCormick, 2010). This implies that the performance of SMEs in any economy is very important and should be encouraged by creating the enabling environment for SMEs to drive.
One of the current entrepreneurship research streams is focusing on how SMEs can look inward to organise and apply their internal resources and competencies to explore business opportunities rather than depending on the formal institutions for support. These competencies (e.g., Innovativeness, proactiveness and managerial experience/skills) and boundary-spanning capabilities (e.g., political and business network ties) could help firms to gain sustainable competitive advantage and enhance better performance in highly unpredictable business environments that are characterised by weak institutional frameworks (Wales et al. 2013; Luu and Ngo, 2019; Isichei et al., 2019; Basco et al., 2020). Hence, the need to focus on this area of research to proffer solutions for improving the performance of SMEs becomes vital, especially for developing economies with high targets for economic growth and development like Nigeria, the most populous country in Africa (World Population Review, 2020).
CHAPTER 5

PHILOSOPHICAL FOUNDATIONS AND RESEARCH

METHODOLOGY

5.0 Chapter Overview

This chapter covers the philosophical underpinnings (i.e., research paradigm), research design, data collection methods, and the analytical techniques employed in this research project. This methodology chapter further explains in detail the analytical techniques used (Structural Equation Modelling). It concludes by outlining the ethical issues relating to the study.

5.1 Research Paradigm

The word paradigm is seen as a shared understanding of reality or a set of fundamental assumptions guiding the way things work (Alvesson & Skoldberg, 2009). Every research is guided by a paradigm, which tends to filter the researcher's way of perceiving reality from personal beliefs, ideas, and experiences. According to Guba and Lincoln (1994), the ontological (i.e., what is reality?), epistemological (i.e., how do you know something?) and the methodological (i.e., how do you go about finding out?) position of the researcher defines the research paradigm or direction and nature of inquiry. While ontology is about the philosophy of reality (i.e., what it is to be known about the world and the world's nature), epistemology is concerned with the possibility to find out about the world of knowledge or how that really is known (Myers, 2013). Lastly, the methodology outlines the specific processes or ways of achieving that knowledge of reality (Saunders et al., 2016). There are various kinds of paradigms
commonly applied in research such as positivism, social constructivism, critical realism, and pragmatism (Myers, 2013).

5.1.1 Positivism

The positivism paradigm applies scientific way of inquiry grounded in a realist ontology, which believe in the existence of truth out there (Blaike, 1995). In other words, proponents of this paradigm believe that an objective reality exists, and the knowledge of that reality can be gained through scientific research methods. They are interested in the exact position of things and how these things really work. They believe that only a single objective reality exists in any phenomenon and the observer of this reality is independent of the subject under observation (i.e., they see the world as external to the inquirer or the observer). Positivists believe in making normative statements and value judgements insisting that facts must be separated from values because value assumptions are not empirically proven and therefore cannot create valid knowledge. Again, proponents of positivism believe in the universal laws that are in conformity with the existence of external reality (i.e., the reality that is independent of the researcher). This implies that scientists or researchers who discover these universal, natural, and immutable laws do not have the power to alter or influence them. Blaikie (1995) pointed out that positivism follows some rules associated with phenomenalism and nominalism. Proponents of phenomenalism believe that scientific knowledge can be acquired only through the senses or experience if such knowledge must be valid and that the perception or cognitive process of acquiring that knowledge must be without subjective judgements (Myers, 2013). In the same vein, nominalism explains that all abstractions in scientific discussions must rely on the observer’s experience (Myers, 2013).
Proponents of positivism take an epistemological position, which emphasizes that knowledge can be obtained through scientific methods of inquiry such as experimentations and manipulations (Saunders et al., 2016). They follow a deductive reasoning approach, which apply quantitative techniques to collect and examine data with the aim of verifying theory through hypothesis testing (Saunders et al., 2016). Deductive reasoning starts with a general statement or hypotheses with the aim to possibly reach a particular logical conclusion. It usually proposes falsifiable hypotheses that are subject to criticisms to test existing theory. Any theory tested can only remain valid after being supported by series of successful tests, otherwise, it becomes invalidated by subsequent tests falsifying the theory.

5.1.2 Interprettive paradigm

Those who pioneered interpretive philosophy opposes the proponents of positivism paradigm by emphasizing that human beings are not objects or physical phenomena, and therefore should be observed subjectively (Myers, 2013). Proponents of interpretivism believe that reality can be obtained through interpretations that are based on social constructions like languages and meanings. Dilthey (1883) differentiated the sciences of the spirit of humans from sciences of nature by arguing that the sciences of nature understudy objects with the belief that reality is independent or external to the researcher, while the human sciences study and interacts with subjects that are inseparable from the researcher. Proponents of interpretivism believe in social constructivism and relativism. Social constructivism states that knowledge can be acquired or constructed through shared meanings and learnings from social interactions with a group of individuals (Myers, 2013). This implies that a group of individuals produce their own reality through interactions.
While, positivists believe in objectivity, interpretivists believe on the relativism concept, which emphasizes on the existence of multiple realities (Myers, 2013). In other words, interpretivists do not believe that a valid universal social or absolute reality exists but rather insist that people perceive and attribute meanings to social behaviours and facts from different perspectives (Saunders et al., 2016). Interpretivists believe that the observer is not separated from the phenomenon being studied, while undergoing the process of acquiring the knowledge of that reality. They rely on ideal types, possibilities, and opportunity structures for the purpose of generating or generalising theory.

The methodologies applied in interpretivism adopt the qualitative (i.e., subjective approach) methods to create interactions between the observer and the subject of study. The degree of these interactions is dependent on the nature of the phenomenon being observed. The most important aim is to acquire valid knowledge through our ability to understand and correctly interpret the true meanings of the behaviours of that phenomenon. The interpretive paradigm relies on the inductive approach to acquire valid knowledge, while observing and recording, and carrying out detail classification and data analysis to compare with the intention to discover or generate new theories (Saunders et al., 2016). The inductive reasoning approach starts by proposing a specific statement and ends with generating a theory that will be tested and verified by several scholars before generalising the theory only if that theory passes the empirical tests (Myers, 2013).

Some of the methodologies and methods that are used by proponents of the interpretive paradigm in the social sciences, while carrying out research are the grounded theory, ethnography, the case study research method, and the action research (Myers, 2013). The grounded theory is a qualitative method used when trying
to explore a set of data with the aim of generating theory through the development of narrative frameworks like concepts and categories (Myers, 2013). Ethnography is another qualitative research method applied by researchers who desire to carry out in-depth study through close interactions with the phenomenon under study (Myers, 2013). The observer records in detail and on daily basis, all the behaviours and actions of the subjects (e.g., people) over a reasonable timeframe (Myers, 2013). This method involves time and commitment because the researcher focuses on participants to study in detail through keen observation and occasionally participate in some of their activities. The third method is the case study research, defined by Yin (2003) as “an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident” (p. 13). The final method is the action research used by both interpretivists and the pragmatists. The action research tends to contribute practically by seeking immediate answers to current problems through collaborations being guided by mutually agreed ethical framework (Myers, 2013). In other words, this type of research approach is geared towards solving a practical problem and to generate theory from the findings.

5.1.3 Critical Realism

In trying to modify the positivist paradigm, Roy Bhaskar (1989) initiated critical realism in the late 20th century explaining that it is not enough to acquire knowledge by experience but to also consider the mental process (i.e., the thinking process) after the experience (Reed, 2005). While the positivists (i.e., direct realists) believe that knowledge about the world of reality is gained through human experience, critical realists agree with this believe but added that after the experience the researcher must further undergo the mental process of thinking backward to understand or know the
underlying structures of reality, which shapes the subject being observed (Saunders et al., 2016). In other words, while the positivists validate knowledge gotten by experience, critical realists take further steps to verify that reality by studying the underlying mechanisms that cause the situation or phenomenon under investigation. Their argument is that human senses could deceive, and therefore should not be fully relied on but rather undergo thorough thinking and investigation to validate that knowledge (Saunders et al., 2016). The critical realist investigates in detail the organisation’s social processes and the changes by critically studying on the fundamental causal social structures that influence the organisation’s activities (Reed, 2005). Critical realism embraces epistemological relativism, which tends to follow mild subjective approach (Saunders et al., 2016). While objectivity believes facts exist independently from the observer, the subjective approach believes social facts are produced from social constructions, which are not independent from the observer (Bhaskar, 1989). This means the researcher is not separate from the subject of study (i.e., the observer has some level of influence on the phenomenon under study). In most cases, the critical realists apply both quantitative and qualitative approaches to gather and analyse data to give more explanation of the phenomenon being observed (Saunders et al., 2016).

5.1.4 Pragmatism

The pragmatist’s paradigm originated in USA through the seminal works of Charles Pierce, William James, and John Dewey in the late 19th century to the early 20th century (Saunders et al., 2016). Proponents of pragmatism believe that all concepts, languages, meanings, beliefs, and sciences are not relevant unless they have been applied or tailored toward solving practical problems (Myers, 2013). Their target was to create a common ground to harmonize the arguments around objectivism and
subjectivism by recognising reality as practical results of ideas, processes, and activities, which are complex, rich, and external to the observer.

In research studies guided by the pragmatists view, the research question informs the kind of research methodology to employ with a target of achieving practical solutions that will positively affect the changing world (Saunders et al., 2016). They are more concerned with problem solving research to improve future practices (Bryman and Bell, 2011). Proponents of pragmatism apply a range of research approaches like quantitative, qualitative, and mixed methods approach to provide solution to the research problem. They focus more on result outcomes and practical solutions from the research work rather than the research approach and methods (Saunders et al., 2016).

5.2 The philosophical positioning of this research study

The current study adopts the positivist’s paradigm as the guiding philosophy in establishing the research design that was followed throughout the research. This paradigm incorporates the choice of methodology and the kind of data collection technique used in this study (Collis and Hussey, 2014). Proponents of positivism rely on quantitative techniques such as the development of hypotheses to test existing theories and relationships between variables, while carrying out research work. Adopting this approach allows the researcher to examine the relationship between entrepreneurial orientation and firm performance, and the intervening variables (i.e., network ties and managerial experience) affecting this relationship.

5.3 Research design

Research design is the framework, or the overall strategy applied to generate the research evidence that answers the research question (Bryman & Bell, 2011). The
point of choosing a research design and strategy for any study is very important and could be quiet challenging because this involves the plan on how to carry out the overall research process targeted at addressing the research problem or answering the research question (Saunders et al., 2016). It is, therefore, imperative to evaluate the strengths and weaknesses of the methodologies and methods before choosing the appropriate ones for use. Quantitative, qualitative, and mixed data collection and analysis approaches are the three common methodologies in business and entrepreneurship-related research studies (Collis and Hussey, 2014). Studies that incorporate the quantitative approach follow a well-defined theoretical framework, which clearly pinpoint the direction of expected outcomes in the research as clearly stated in the form of hypotheses (Saunders, et al., 2016). The current study adopts the quantitative approach in addressing the research problem.

5.4 Research method

The study addresses the research objectives by applying data from survey carried out in Nigeria for analysis and confirmation of research findings (Saunders et al., 2016; Bryman and Bell, 2011). The researcher administered survey questionnaire to 600 firms across the six geopolitical zones in Nigeria; thus, the survey technique was comprehensive and provided an appropriate setting for testing the effect of entrepreneurial orientation on firm performance, while considering other contingent variables influencing this relationship.

In accordance with the objectives of the research, this study adopted a survey method to collect data sample for hypotheses testing (Collis and Hussey, 2014). The survey method uses the questionnaire technique to provide a quantitative description in the form of questions or statements that represent the type of data needed for analysis.
The questionnaire was a list of carefully structured questions or statements chosen after considerable testing to extract useful and reliable data from respondents (Saunders et al. 2016; Collis and Hussey, 2014).

5.5 Variables and measures

5.5.1 Dependent variables

Firm performance as a dependent variable in this study is considered as a unidimensional construct comprising both financial (return on investment, return on equity, net profit, and sales growth) and non-financial (market share growth, employee satisfaction, customer satisfaction, and employment growth) performance indicators (Boso et al., 2013; Neneh, 2018). Researchers emphasize the combination of both financial and non-financial indicators for effective measurement of firm performance (Brockman et al., 2012; Boso et al., 2013; Danso et al., 2016; Neneh, 2018). Empirical evidence confirms that these performance indicators can be effectively captured using subjective measurements, although some researchers prefer objective measures (Sheng et al., 2011; Anderson and Eshima. 2013; Boso et al., 2013). Achtenhagen et al. (2010) opines that the use of subjective performance indicators could facilitate comparison across industries, market contexts and economic conditions.

This study applied subjective performance indicators to measure firm performance. Subjective measures were used because studies have widely confirmed the unavailability of objective financial data (Brockman et al., 2012), especially from SMEs in developing economies like Nigeria, Ghana and South Africa (Covin and Slevin, 1989; Neneh, 2018; Boso et al., 2013; Danso et al., 2016; Lawal et al., 2018). A seven-item self-reported scale (sales growth, market share growth, the growth of profit, return on investment, employment growth rate, customer loyalty/retention, and quality
reputation and achievement award) were applied in measuring SME performance. The scale measures were taken from Sheng et al. (2011), Anderson and Eshima, (2013) and Lawal et al. (2018). The respondents were asked to rate the level of performance on a seven-point scale anchored by “very low (1), low (2), moderately low (3), Average (4), moderately high (5), high (6), and very high (7)”. Full details of these measures are shown below.

5.5.1.1 Financial indicators

FP1: Firm’s average sales growth for the last three years compared with our competitors.

FP2: Firm’s overall average profitability for the last three years compared with our competitors.

FP3: Firm’s average return on investment for the last three years compared with our competitors.

FP4: Average market share growth for the last three years compared with our competitors.

5.5.1.2 Non-financial indicators

FP5: Average employment growth for the last three years compared with our competitors.

FP6: Customer loyalty/retention for the past three years compared with competitors

FP7: Quality reputation and award achievement for the past three years compared with competitors
5.5.2 Independent variable

Following the entrepreneurial orientation scale applied by Covin and Slevin (1991), Casillas & Moreno (2010) and Stenholm et al. (2016), the study used seven-point scale ranging from “strongly disagree (1), disagree (2), slightly disagree (3), neutral (4), slightly agree (5), agree (6), and strongly agree (7)” to rate the measures of entrepreneurial orientation comprising innovativeness, risk-taking, and proactiveness.

5.5.2.1 Innovativeness (Covin and Slevin, 1991; Casillas & Moreno, 2010; Boso et al., 2013; Stenholm et al., 2016).

EOIN1: Our firm is the first to introduce new products/services compared with competitors.
EOIN2: Our firm is good at developing new processes compared with competitors.
EOIN3: Our firm easily recognises and develops new markets compared with competitors.
EOIN4: Our firm is a leader in technology compared with competitors.

5.5.2.2. Risk-taking (Covin and Slevin, 1991; Casillas & Moreno, 2010; Boso, et al., 2013; Stenholm et al., 2016)

EOR1: Our firm exploits risky market opportunities.
EOR2: Our firm invest heavily on high-risk/high-return projects.
EOR3: Our firm takes bold actions to achieve our goals.
EOR4: Our firm always experiment new products and services with high probability of failure.
5.5.2.3 **Proactiveness** (Covin and Slevin, 1991; Casillas & Moreno, 2010; Boso *et al.*, 2013; Stenholm *et al.*, 2016)

EOP1: We are first to identify customer needs.
EOP2: Our firm initiates actions to which competitors respond.
EOP3: Our firm proactively pursue market opportunities.
EOP4: Our firm pre-empt competitive actions.

5.5.3. **Mediating variables**

5.5.3.1 **Firm network ties**

This project applied firm network ties comprising of business and political network ties to investigate the mediating role of firm network ties. Measures for firm network ties followed that of Xin and Pearce (1996), Su *et al.* (2015) and Neneh (2018). The study used seven-point scale ranging from strongly disagree (1)" to “strongly agree (7)" to rate the measures.

5.5.3.1.1 **Business network ties**

BUSNET 1: Our firm has built good connections with suppliers.
BUSNET 2: Our firm has built good connections with customers.
BUSNET 3: Our firm has built good connections with competitors.
BUSNET 4: Our firm has built good connections with technological collaborators.
BUSNET 5: Our firm has built good connections with marketing-based collaborators.
BUSNET 6: Top managers at our firm spent good time and effort in cultivating connections with financial institutions
BUSNET 7: Our firm devoted substantial resources to establish and maintain good relationship with financial institutions
5.5.3.1.2. Political network ties

POLNET1: Our firm has maintained good relationships with federal level government officials.

POLNET2: Our firm has developed good connections with officials in regulatory and supporting organizations such as tax bureaus and commercial administration bureaus.

POLNET3: Top managers of our firm have good relationship with state and local level government officials.

POLNET4: Our firm has spent substantial resources from the company in building good relationships with government officials.

POLNET5: We support relatives, friends and peers in politics to maintain good relationships.

POLNET6: We have good relationships with host community leaders such as community chiefs and youth leaders, who are in politics.

POLNET7: We support political organizations.

5.5.4 Managerial experience as a moderating variable: The study measured managerial experience as the total number of years of managerial experience in the same industry (Borgia and Newman, 2012).

5.5.5. Control variables

The study applied survey to gather data for firm age, firm size, industry, debt-level and environmental munificence, which are the control variables. The study followed Borgia and Newman (2012) and measured firm size as the number of full-time employees and firm age as the number of years of the firm beginning from the year of starting operation to the most recent financial year.
5.5.5.1 Firm debt-level: The debt-level is usually measured with short-term, long-term, and total debt-level expressed in ratios or percentages of total assets (i.e., debt divided by total assets). For subjective measures, respondents are usually required to provide figures for the previous or most recent financial year or alternatively asked to rate the ratio of total debt to total assets when compared with competitors (Borgia and Newman, 2012). This study requested respondents to provide the estimate of the proportion of the firms’ short and long-term debt levels in percentage of total assets.

5.5.5.2 Environmental munificence

This project used four items from the research work of Castrogiovanni (1991), Hart and Banbury (1994), and Li et al. (2013) to rate the level of environmental munificence in Nigeria. The scales include: (1) We are in the market almost without external threat to the survival and development of firms. (2) We are in the market with enough capital supply. (3) We are in the market with numerous profit opportunities. (4) We are in the market, which can easily gain access to the needed resources for operations and expansion.

5.6.1 Questionnaire survey design

This project follows some procedures in designing the questionnaire. First, the study prepared an English-language version of the questionnaire based on previous studies to integrate all measurement variables to be tested and a consent form, which clearly addresses ethical issues relating to consent, anonymity, confidentiality, and transparency as can be seen in appendix 1.

5.6.2 Pre-tests of the questionnaire (pilot study)

Pre-tests of the questionnaire were conducted to refine and to determine face validity. Accordingly, pilot testing checks for any potential difficulties of the questionnaire,
including the understanding of the respondents, their willingness to answer sensitive questions and the time expected to complete the questionnaire (Ghauri and Grønhaug, 2005). Questionnaires were distributed to 40 participants consisting of (35) SME managers and five (5) academics in Nigeria. The respondents were requested to complete the questionnaires and pinpoint any difficulties they experienced during the process. Admittedly, wording and sentence construction defects were identified and revised to more simplified language to suit the requirements of the context. Also, the pilot study utilised a small sample size, therefore, an exploratory factor analysis (EFA) could not be performed on the data collected. Nevertheless, data size did not present a major limitation because most of the measurement items were drawn from previous research and tested for reliability and validity.

5.6.3 Rationale for using structured questionnaire survey instrument

This study employed standardised survey instrument (close ended or structured questionnaire) to collect primary data from managers of SMEs in Nigeria. It is considered appropriate for this type of study because it restricts respondents to answer the questions in line with the set standards, which help in analysing results quantitatively (Boso, et al., 2013). Conversely, methods that rely on observation and interviews fit in more in qualitative research such as ethnography, grounded theory and case study research because these methods are suited to discover and explore behaviours such as customers’ attitudes towards a new product and how vulnerable people reacts to bullying and other forms of abuse. On this note, the use of questionnaires is considered more appropriate for this kind of study where effect relationships between variables are determined (Saunders et al., 2016). Moreover, structured questionnaires tend to be more objective when compared to unstructured interviews due to their standardised structure (Bryman and Bell, 2011). On a general
note, structured questionnaire administration is cost effective, convenient, time saving and allows for easy access, in terms of primary data gathering. Again, questionnaires require less skill and sensitivity to administer than semi-structured or in-depth interviews, especially if correctly worded (Saunders et al., 2016). Moreover, gathering of large sample of data for better representation of the population can be achieved within lesser time frame by means of questionnaire survey than interviews. Also, questionnaire survey allows for tailored monitoring and controlling of the research process. More so, the use of questionnaire survey in this study became necessary due to paucity of data for SMEs in Nigeria.

Although, the usage of questionnaires is not without challenges, for instance the process of designing and validating survey instrument is rigorous and time consuming. Lawal, et al. (2018) affirm that the difficulty in obtaining archival data for management research especially financial information in most African countries including Nigeria is one major challenge for carrying out research in this kind of setting. Furthermore, previous researchers have identified problems associated with respondents' bias and low response (Hair et al., 2003). Despite the challenges, survey remains one of the most appropriate methods to provide empirical results in answering the research questions to achieve the stated objectives of this study (Saunders et al., 2016). Data gathering methods have inherent challenges, and therefore, it is imperative to know how best to address and overcome the challenges to acquire useful and timely data (Bryman and Bell, 2011). The use of questionnaire has been well documented in several research studies in recent times, including similar studies to this work (Abor and Biekpe, 2009; Boso et al. 2013; Anderson and Eshima, 2013; Chin et al., 2016; Rank and Strenge, 2018; Isichei et al., 2019; Olubiyi et al., 2019; Luu and Ngo, 2020; Basco et al., 2020). This can be seen in well-known journal articles, World Bank
research projects and African Development Bank projects on SMEs in Sub-Saharan African countries (Boso et al., 2013; Neneh, 2018; Moreno and Casillas, 2010; Basco et al., 2020).

5.7 Data collection

The data for this study covers a sample of SMEs’ managers in the six geopolitical zones of Nigeria, namely: North-West, North-East, North-Central, South-West, South-East, and South-South zones. Data was collected in the major towns across all zones in 2019. Self-reported questionnaires were administered to 600 firm managers in a face-to-face fashion by the researcher and four trained research assistants. This was to enable the researcher to get prompt responses to guide against nonresponse bias issues. Researchers have confirmed the effectiveness of face-to-face survey approach and advise that researchers should apply this data collection technique in developing countries with low level of research works (Jiang et al., 2018). They explain that a face-to-face clarification of issues will enhance the understanding of the respondents regarding the research purpose and objectives.

The data collection process for the present study proved that the face-to-face approach is effective in encouraging and facilitating participation, primarily because, the respondents were assured of the potential benefits of the study, and of the fact that the research had no links with government or tax authorities. The face-to-face approach also allowed the researcher to clearly explain the options in the questionnaire to respondents who were not familiar with the Likert scales type of questions. Some of the questionnaires were completed immediately by respondents with the support of the research assistants. This was to make the process easier for respondents with low-level education, as well as to encourage those who believe that
self-completing the questionnaire would be too cumbersome and time consuming. The current study combined both the convenience sampling method and snowballing to select and collect the data sample. Convenience sampling has been used in previous related studies in the entrepreneurship literature (Mitchelmore and Rowley, 2013). It is useful in targeting a reasonable high level of response rate, particularly in developing economies where questionnaire administration could be challenging (Bryman and Bell, 2007). Unfortunately, the agency responsible for monitoring all SMEs in Nigeria (i.e., SMEDAN) was unable to make available a comprehensive register of SMEs due to poor data management and administrative barriers. This allude to the fact that while developed economies have reasonable and detailed records of business firms, this may not be the case in developing contexts. Kriauciunas et al. (2011) emphasizes that survey administration techniques for data collection should be context-specific so that significant adaptation can be made in the absence of established databases. Given the difficulties in accessing firms’ contact details, door-to-door visits at shopping centres was adopted to elicit responses from the business managers. A snowball approach was also incorporated where business owners who participated were requested to identify other potential respondents. It was observed that some potential respondents were reluctant to participate in the survey unless someone they knew or trusted had referred the researcher to them. This observation is in line with Stopher’s (2011) who argues that respondents may be more responsive to participate in a questionnaire survey if it is endorsed by a trusted person or authority.

4.7.1 Data analysis techniques

This project applied IBM SPSS 24 and Mplus software packages to carry out quantitative analysis on survey data demographics, and to investigate direct and
indirect effects of variables measuring entrepreneurial orientation, firm network ties, managerial experience, and firm performance. The analysis began with data screening, which helped to exclude questionnaires that did not fall within the categories under study. For example, participants relating to large firms (>250 employees) were removed from the sample. Again, the CFA analysis conducted assisted in deleting constructs with very low factor loading. The description of the sampled data was analysed. The last step was the evaluation of direct and indirect effects using Structural equation modelling as shown in the data analysis chapter of this study.

5.7.1.1 Structural equation modelling (SEM)

SEM is a multivariate statistical analysis technique that combines factor analysis and multiple regression analysis to examine measurement and structural models (e.g., validating constructs and investigating relationships of observed and latent variables) with secondary and/or primary data (Kline, 2015).

5.7.2. Observed variables and latent variable constructs

An explicit distinction between observed variables and latent variables is a key feature of SEM (Kline, 2015). Observed variables are data scores collected and entered in a data storage file. On the other hand, latent variables in SEM are hypothetical constructs, which reflect the sequence of measurement items that are indirectly observed (Jichuan & Xiaoquan, 2012). An observed variable can be used as an indicator or an item to indirectly measure a construct. Indicators and variable factors in structural equation modelling help to test for several varieties of measurement hypotheses (Gana and Broc, 2018). The applicability of SEM to analyse both observed and latent variables, distinguishes SEM from basic statistical techniques, such as the
analysis of variance (ANOVA) and multiple regression analysis, which are limited to applying only observed variables for analysis (Hair et al., 2014). The capability to analyse observed or latent variables in SEM as either causes or outcomes allows greater flexibility in the categories of hypotheses that can be tested (Kline, 2015).

5.7.3 Measurement model

A measurement model comprises the measurement components of the structural model. The measurement model helps to explain how well the observed variables measure latent variable constructs or factors. Measurement models are examined using confirmatory factor analysis (CFA). CFA proposes and tests the relationship between the latent variables and their underlying observed indicators or variables designed to measure the latent construct (Kelloway, 2015). This is to confirm the compatibility of the observed indicators, which are used as measures of the latent variables. In any measurement model, the coefficients, which are referred as factor loadings confirm the links between the observed indicators and the latent variables. Higher factor loadings confirm higher compatibility of the observed indicators, which reflect the latent variable constructs (Kline, 2015).

5.7.4 Structural model

A structural model explains the relationships among latent variable constructs (Kelloway, 2015). However, if all the variables in a structural model are observed variables, instead of latent variables, then the structural model automatically becomes a traditional path analysis applied in sociology or simultaneous equation model applied in econometrics (Jichuan & Xiaoqian, 2012).
5.7.5 Sample size

Structural equation modelling is known to be a large-sample technique because the estimation methods (e.g., maximum likelihood) and tests to confirm model fit (e.g., the chi-square test) applied in SEM depend on the assumption of large samples (Byrne, 2012). Scholars suggest a minimum sample size of 200 observations for simple models explaining that parameter estimates may be inaccurate in samples of less than 200 (Boomsma, 1983; Tomarken and Waller, 2005; Kline, 2015). Others alternatively suggest that the sample size ratio for estimating parameters should be within the range of 5:1 and 10:1 (Bentler and Chou, 1987; Kamel Gana and Guillaume Broc, 2019).

Another alternative approach required to ascertain sample size for structural equation models is to conduct power analysis or to generate sample size estimates by applying Monte Carlo analysis with advanced software such as Mplus 8.2 (Muthen & Muthen, 2002). Barrett (2007) explains that reviewers of article submissions often reject for publication any paper, which apply SEM to analyse data with sample size lower than 200, except the population studied is very small or restricted in size. However, this recommendation is not a standardised practice, but helps to pinpoint the fact that analysing smaller samples in SEM can be problematic. This study meets this requirement by employing over 200 cases or respondents (N>200) for data analysis.

5.7.6 Rationale for using SEM compared to other traditional regression techniques

In view of traditional regression techniques, analysis of variance (ANOVA) is just a special case of multiple regression, and both techniques belong to a larger family of general linear model (GLM). Also, part of the GLM are multivariate techniques such as the MANOVA (i.e., multivariate ANOVA) and the canonical correlation analysis,
among others. The general linear model is like a form of SEM but restricted to analysing only observed variables (Hair et al., 2014).

Structural equation modelling (SEM) is known to be a very useful data analysis technique in social science research, which explains relationships between variable constructs relevant to a theoretical model (Lawal, et al. 2018). The use of structural equation modelling provides robust flexibility, while analysing both observed and latent variables. Unlike traditional statistical techniques (i.e., ANOVA and multiple regression), which analyse observed variables only. Again, SEM incorporate variances that are both latent and observed to enable researchers to easily identify potential error.

Furthermore, SEM has the capability to investigate both direct and indirect effect relationships compared to basic regression techniques (Byrne, 2012). It is very suitable for this current study which deals with latent variables. Another benefit of SEM is the ability to test the models’ goodness of fit, which helps to ascertain the extent to which the model fits the data well (Stenholm et al., 2016). SEM also provides a better way to control for measurement error where constructs are specified as latent variables measured by multiple observed indicators. Using SEM tend to be more accurate in estimating correlations between factors or between indicators and factors compared to using observed-variable methods such as multiple regressions (Little et al., 1999; Keith, 2019).

5.7.7 Categories of factor analysis

The two kinds of factor analysis are the exploratory factor analysis (EFA) and the confirmatory factor analysis (CFA). These two analytics methods differ in different ways as explained below.
i. While CFA requires a priori specification by clearly stating the number of factors, the EFA does not but rather allow the computer software (e.g., Mplus) to theoretically generate all the possible results ranging from one-factor model up to different multifactor models.

ii. EFA analysis is applied in unrestricted measurement models, while CFA is used in restricted measurements. In CFA, indicators are specifically allocated to the factors, unlike EFA that does not specify the allocation of indicators to factor prior to carrying out the analysis.

iii. Models in CFA must be identified, while EFA models are not identified prior to analysis. CFA comprises of defined or specific set of parameter estimates, while EFA has no unique set of parameter estimates but will rather carryout a rotational phase analysis to generate and allocate indicators to form different best possible models for the researcher to select from.

5.7.8 Characteristics of CFA models

i. Each measurement indicator is continuous with a single variable to be measured by the indicator.

ii. The error terms do not depend on each other and are independent of the factors.

iii. All relationships are linear and the variables always covary.

5.7.9 Procedures in carrying out SEM

Structural equation modelling can be carried out in five stages (Bollen and Long, 1993; Kelloway, 2015). These are model specification, identification, estimation, evaluation, and respecification (Kline, 2015). Analysis results are expected to be reported if the model fits the data well. However, if the model fit indices are poor or not good enough
after evaluation, then it will be necessary to respecify the model to initiate a new process of identification, estimation, and evaluation, only if doing so is justifiable (Byrne, 2012).

### 5.7.9.1 Model Specification

Model specification is the process of selecting an appropriate functional form, while building a model (Keith, 2019). It considers the type of variables to be included in the model (e.g., dependent, and independent variables). Outcome (dependent) variables in SEM are called endogenous variables, while the independent variables are referred to as exogenous variables (Lee and Song, 2012). Every endogenous variable is expected to have at least one possible cause referred to as independent variables (Kelloway, 2015). Specification is a very important stage because results from later steps assume that the researcher correctly hypothesizes the model.

### 5.7.9.2 Model Identification

A statistical model comprises of a series of equations, which define the model parameters that correspond to presumed relationships among variables. To apply modelling techniques, the researcher expects to estimate several unknown parameters such as factor loadings and path coefficients based on covariances or correlations of the observed data (Kelloway, 2015). A model identification deals with issues on whether it is theoretically possible to get a unique estimate of each model parameter or not, otherwise the model is not identified and therefore, should be respecified (Byrne, 2012). However, respecifying the original model can be similar to making an intentional specification error considering from the perspective of the theory.
A model maybe under-identified, just identified or overidentified. It is over-identified if the number of equations exceed the number of unknowns and just identified if the number of equations equal the number of unknowns. For example, given a K x K covariance matrix, where K represents the number of variables, there are K x (K – 1)/2 unique elements in the covariance matrix. A just-identified model estimates the exact K x (K – 1)/2 number parameters to provide one unique solution as seen in multiple regression models. Although, it is argued that just-identified models contain many sources of error including sampling and measurement error. On the other hand, if the number of equations is less than the number of the unknowns, then the model is said to be under-identified and cannot produce unique solutions (i.e., it cannot be determined because no solution is possible). The overidentified model is what researchers are interested in because in this case, the model can be falsified via hypothesis testing if there is no solution that satisfies the equation.

5.7.9.3 Model Estimation

Estimation in SEM is usually carried out using computer software packages such as Mplus, IBM SPSS Amos and others. This is due to the difficulty in solving structural equations in complex models by hand. It is very fast and easy using computer procedures to solve these equations. For example, Mplus applies numerical methods based on the process of interactive estimation to calculate model parameters without delays.

5.7.9.3.1 Choice of Estimators

Very popular estimators applied in SEM is the Maximum likelihood (ML). ML estimators are robust, consistent, efficient, and deemed appropriate for analysing large samples (Kline, 2015). Although, the ML estimator assumes normality of data,
non-normal issues have been addressed using appropriate extended versions of the ML such as the MLR and MLM estimators. MLM is an extended version of ML, which integrated the Satorra-Bentler X² corrected value that is robust to deal with the violation of multivariate normality, while the MLR is an extension of MLM, which correct for issues relating to missing data (Satorra and Bentler, 2001). Byrne (2012) suggests that the data should be tested by comparing results of the ML estimation and MLM estimator if there are concerns of multivariate normality. Multivariate normal data will show no difference in the fit statistics generated by both the ML and MLM estimators. However, the MLM output results should be reported if there are significant differences because it shows a violation of the normality assumption. Interestingly, the Mplus 8.2 software package automatically selects the correct estimator for analysis after screening the data pattern (i.e., the Mplus software program selects the most appropriate estimator for analysis considering the type of data).

5.7.9.4 Model Evaluation

A key step in SEM is to carry out the model fit test to assess the difference between the estimated variance/covariance matrix and the observed sample variance/covariance matrix. If there is no significant difference found, then it implies that the model fits the data well. Several model fit indices including the chi-square test, RMSEA, RMR/SRMR, WRMR, CFI, TLI and others have been proposed (Jichuan & Xiaoqian, 2012; Gana and Broc, 2018).

5.7.9.5 Model Respecification

The idea of model respecification is to improve the fit indices by adjusting the level of model fitness to the data (Kelloway, 2015). To respecify a model is to modify the model
by deleting the nonsignificant parts (i.e., theory-trimming technique) or by adding new paths to the model after evaluating the empirical results (Byrne, 2012). Scholars are yet to fully agree on the role of model respecification in structural equation modelling due to problems associated with respecification (Bollen & Long, 1993). Researchers argue that looking for ways to respecify a model with the available data do not retrieve the original model because respecification are carried out post hoc. The respecification process tend to explore the data, which corresponds to theory generation techniques (e.g., grounded theory) in qualitative research. This process goes against empirical procedures such as confirming existing theory through hypothesis testing in quantitative studies (MacCallum, 1986; Myers, 2013).

Therefore, scholars advise that model respecification should be based on an independent data sample for validation and not on the currently used data because modifying a model based on the data already in use could be suspicious and might possibly invalidate the interpretation of the modified model results (Kelloway, 2015). The reason is that when models are respecified and reassessed on the same data, the newly added parameters or those ones that are deleted from the original model cannot be said to be confirmed. Past studies have confirmed issues relating to adding of uninterpretable parameters such as covariances among error terms to a respecified model to improve fit indices (Barling et al., 1991, Kelloway, 2015). Although, for a data sample different from the original data, replication of model respecification is accepted as an appropriate strategy, it should be carried out with caution because empirically driven respecification procedures of model parameters emphasize on chance variations in the data sample; hence the result outcomes of such replication might be inconsistent (MacCallum et al., 1992; Kline, 2015).
Consequently, there are several conceptual and empirical problems that are associated with the practice of modifying models (Gana and Broc, 2018). Kelloway (2015) pinpointed that it is more advisable to report the results of a model with poor fit and invalidate the theory guiding the development of that model rather than modifying the model for further evaluation. The benefit here is that this approach tends to conform to the hypothesis testing process of either accepting or rejecting the hypothesis. On the other hand, the disadvantage for reporting solutions of ill-fitted model is that the research may not gain any insight in identifying the correct theory because the data collected is not fully explored. However, modifying a model is fraught with dangers because it is very difficult to get it right. Another key issue associated with post hoc model modification is that the process is exploratory and capitalise on chance. Hence, making it looks almost impossible to replicate the findings in a new data sample.

5.7.9.6 Reporting the Results

The final process in SEM involves an accurate and complete data analysis, results interpretation, discussing and reporting the findings (Boomsma et al., 2012; Kelloway, 2015).

5.7.10 Data preparation and assumption testing

The data preparation stage is a very important aspect of the data analysis process because it ensures that data are complete and valid. It deals with issues relating to missing data, outliers, and nonnormality (Hair et al., 2010).

5.7.10.1. Data editing

Data editing is the first step in the data preparation process, which involves checking individual questionnaires to find out the unusable and ineligible ones (Bryman and
Bell, 2011). Eligibility is checked by confirming if the respondents meet the criteria for inclusion in the sample. Otherwise, ineligible questionnaires must be removed from the study. Up to 19 questionnaires in this research were screened out based on the following grounds:

1. Respondents who ticked the option of firms having more than 250 employees were removed from the sample because the study is limited to SMEs (less than or equal 250 employees).

2. Respondents that could not categorically state their ethnicity, religion, ownership status, and the industry of their firm or ticked the option “others” were removed from the sample.

A further assessment of questionnaires based on missing data was carried out during the data entry process. It was revealed that out of the remaining 352 questionnaires, 42 had missing data and were therefore potentially unusable. This reduced the number of usable questionnaires to 310. Data were then coded and entered in excel and later exported to IBM SSPS 24. Mplus analyses excel data saved in csv format.

5.7.10.2 Missing data

Missing data is seen as one of the most prevailing challenges in data analysis (Tabachnick and Fidell, 2007; Finch and French, 2015). Missing data could result from omissions during data collection process. Omissions could also arise at the point of data entry. It is very important to take missing data issues seriously because this can affect the reliability and validity of the research findings if not properly addressed (Hair et al., 2010). Other data collection issues that could lead to missing data could arise from unanswered questions in the questionnaire and/or the respondents’ decision to quit from the survey participation (Byrne, 2010). Data can be missing at random,
missing completely at random, and missing not at random (Tabachnick and Fidell, 2007). It is very difficult and, in most cases, impossible to predict the distribution of any data missing completely at random. On the other hand, when data are missing but not at random other variables in the dataset can be used to trace the sequence of missing data.

5.7.10.3 Deleting affected variables or cases.

Although, there are no generally agreed guidelines or rules on how much missing data disqualifies a questionnaire for inclusion in the data sample, Hair et al. (2003) suggest that as a rule of thumb, incomplete questionnaires with missing data of 10% and above should be deleted. Researchers propose that the affected variables should be deleted when missing data at random, or if the missing data consist of small number of variables which are not important for the analysis or which share a high correlation value with other complete variables (Tabachnick and Fidell, 2007; Kline, 2015).

5.7.10.4. Estimating missing data – There are different methods in estimating missing data including multiple imputation, weighting procedures, and likelihood-based methods (Kline, 2015). Imputation can be defined as “the process of estimating the missing value based on valid values of other variables and/or cases in the sample” (Hair et al., 2010, p. 50). Multiple imputation can be done by replacing the missing values with values estimated from the sampled data. The application of multiple imputation is now easy and straightforward using statistical software packages such as the IBM SPSS 24, STATA, and Mplus 8.2 (Tabachnick and Fidell, 2007). The weighted average procedure data is a mean substitution technique, which involves the estimation of the mean of all variables having some missing data and substituting the missing values with the mean value of that variable. In this study, examination of the
affected 42 cases indicated that too many data were missing in the questionnaire. Thus, these incomplete questionnaires were not included in the analysis because the number of missing values exceed the 10% minimum threshold when compared to the available data in the incomplete questionnaires (Tabachnick & Fidell, 2007; Hair et al., 2003; Hair et al., 2010).

5.7.11 Assessment for non-normality, outliers, multicollinearity, and homoscedasticity

Several SEM estimation techniques rely on the data normality assumption, which pinpoints that the sampled data must be normally distributed to achieve reliable and valid results. The issue of non-normality can be problematic, while using SEM, hence scholars recommend that the data should be checked and possibly corrected before applying for analysis. Assessing the normality of data can be carried out by examining the presence of skewness, kurtosis, and outliers in the data (Tabachnick & Fidell, 2007; Hair et al., 2010). Skewness measures the symmetry of the probability distribution of random variable values about its mean value, while kurtosis is the sharpness of the peak of the data distribution curve.

Skewness values could be positive, zero, negative or undefined. Normal distribution curve records zero for skewness and 3 for kurtosis. Problems associated with skewness and kurtosis are that, while non-normal kurtosis tries to underestimate the variance, extreme skewness tends to adversely affect tests of means of the variable (Hair et al., 2010; Byrne, 2012; Tabachnick & Fidell, 2007). So far, there is no generally accepted range of values for skewness and kurtosis to conclude on the nonnormality of data. However, Hair et al. (2003) suggests that a value greater than +3 for kurtosis and range outside of ±1 for univariate skewness can be a problematic signal indicating
non-normal data distribution. Another study argues that skewness and kurtosis do not significantly affect the results for analysis of larger samples of 200 and above (Tabachnick & Fidell, 2007). Non-normality due to multivariate kurtosis poses problems by seriously affecting tests of variances/covariances (Byrne, 2012). Multivariate kurtosis can be measured based on the critical ratio (C.R) value. C.R. values greater than 5 indicates non-normality (Bentler, 2005). An alternative study by Ory and Mokhtarian (2010) suggests that the severity of multivariate kurtosis could be evaluated based on three levels such that multivariate kurtosis with values less than 1 indicates negligible non-normality, between 1 to 10 indicates moderate non-normality, and values more than 10 show severe non-normality. Again, checking for univariate and multivariate outliers in the sample data is another vital way of confirming whether the data is normally distributed. Byrne (2010) defined outliers as ‘cases whose scores are substantially different from all the others in a particular set of data’ (p. 105). Outliers causes Type I and Type II errors in data analysis (Hair et al., 2010). The difference between univariate and multivariate outliers is that univariate outliers have extreme values on single variable, while multivariate outliers have extreme values on more than one variable (Kline, 2005). After examining the sample data, the researcher concludes that outliers’ issues were not a threat to the current study.

Further step to screen the data is to ensure that the data satisfies the multicollinearity assumption, while carrying out SEM analysis. Multicollinearity occurs when at least two independent variables are highly correlated (Tabachnick and Fidell, 2007). High level of correlation among independent variables implies that one of the variables could linearly predict the other (Backhhaus, 2011). One common method used for confirming if multicollinearity could pose a problem to the research findings is the use of variance inflation factor (VIF) (Hair et al., 2010; Backhaus, 2011). Various ranges
of thresholds have been applied in reporting VIF in the literature (Tabachnick and Fidell, 2007. Abor and Biekpe, 2009; Boso et al. 2013; Anderson and Eshima, 2013; Chin et al., 2016; Isichei et al., 2019; Olubiyi et al., 2019; Luu and Ngo, 2020; Basco et al., 2020). All acceptable threshold values of VIF reported were 10 and below (O’Brien, 2007; Backhaus, 2010). They insist that any value above 10 indicates a multicollinearity problem. In this current research study, all VIF values lie below 3.30. Hence, critical thresholds alluding multicollinearity are not exceeded for this research (O’Brien, 2007, Hair et al., 2010). Therefore, multicollinearity is not an issue as can be seen from the results in appendix 3.

Another pre-assumption for applying SEM is to check whether homoscedasticity exists in the sample data. One way to confirm homoscedasticity is to check if the variables’ residuals or error values across the dataset have constant variance (O’Brien, 2007; Backhaus, 2010). This is a problem because it suggests that the variance across different levels of the variable is consistent (Hair et al., 2010). On the other hand, heteroscedasticity exists if the variance among variables’ residuals or error values in the dataset is not constant (Backhaus, 2010). An easy way to confirm the absence of homoscedasticity is to find out if there is an interaction effect between the variables. Gaskin (2012) explains that heteroscedasticity exist in the dataset when there is interaction between variables. The interaction analysis shown in the data analysis chapter of this study clearly shows the presence of interactions, hence, homoscedasticity of the data is not an issue in this research work.
5.7.12 Reliability and validity of measures

Before testing the conceptual model, the study evaluated the reliability and validity of the data to confirm that the values of factor loadings, Cronbach’s alpha, AVE, and CR fall within the acceptable thresholds.

5.7.12.1 Reliability

Reliability is obtaining consistent scores in a study if repeated measurements are made at different times and situations (Saunders et al., 2016). The purpose is to ascertain the internal consistency of the various items, which form the latent construct or variable (Collis and Hussey, 2014). The Cronbach’s alpha test is a popular technique used to measure the internal consistency of a latent variable (Bryman and Bell, 2015; Kline, 2015). A low internal consistency indicates a poor measurement construct. This implies that the measurement items cannot measure the variable and should not be used because it will result to misleading result findings (Collis and Hussey, 2014; Bryman and Bell, 2015; Kline, 2015). The Cronbach’s alpha can be calculated as follows:

$$\alpha_c = \frac{n_i \bar{Y}_{ij}}{1 + (n_i - 1)\bar{Y}_{ij}}$$  \hspace{1cm} (5.1)

Where: $n_i$ is the number of items and $\bar{Y}_{ij}$ is the average Pearson correlation between all pairs of items.

Internal consistency reliability is higher when the average inter-item correlation increases. In observed variable analysis, it is most appropriate to analyse scores from internally consistent measures. This also, is generally recommended for latent variable analysis, including SEM (Gana and Broc, 2019). Test– retest reliability involves re-administering a measure to the same group. If two sets of scores are highly correlated,
error due to temporal factors may be minimal. Test-retest allows the measurement to be done multiple times to determine whether there is a high correlation in the data, while alternate or parallel form reliability use different scale forms to evaluate the same subjects. Alternate or parallel form reliability involves the evaluation of score precision across different versions of a test. This method assesses whether variation in items drawn from the same domain leads to changes in rank order between the two forms. If so, then scores are unstable across different versions, which raises doubts that a common domain is measured. Interrater reliability is relevant for subjectively scored tests: If independent raters do not agree in scoring, then examiner-specific factors may contribute overly to score variability. In observed variable analyses, there is no agreed standard as to how high coefficients should be to conclude that score reliability is satisfactory. However, coefficients around 0.90 are considered excellent, values around 0.80 as very good, and values about 0.70 as adequately acceptable. Low score reliability has adverse effects on observed variable analyses. Poor reliability reduces statistical power; it also generally reduces effect sizes below their true values. Unreliability in scores of two different variables, X or Y, attenuates their observed correlation. This study applied the Cronbach’s alpha test to ascertain the measured internal consistency of the questionnaire items, and only Cronbach alpha values above 0.7 were accepted for analysis (Nunnally, 1978).

5.7.12.1.1 Construct or composite reliability:

Construct reliability (CR) was applied as a measure of reliability in this study as recommended by Hair et al. (2010), who suggests that multiple measures of reliability should be used, while carrying out data screening in a study. The use of CR in this study follows the widely accepted practice of researchers who applied SEM in data analysis (Abor and Biekpe, 2009; Boso et al. 2013; Anderson and Eshima, 2013; Chin
et al., 2016; Rank and Strenge, 2018; Isichei et al., 2019; Olubiyi et al., 2019; Luu and Ngo, 2020; Basco et al., 2020). Some scholars have argued that construct reliability gives better estimates of the scale reliability compared to Cronbach’s alpha, emphasizing that construct loadings vary, unlike the case of Cronbach’s alpha, where loadings are constrained and considered as being equal (Peterson and Kim, 2013). According to Fornell and Larcker (1981), the CR value can be calculated as shown below:

$$CR = \frac{\left(\sum_{i=1}^{n} L_i\right)^2}{\left(\sum_{i=1}^{n} L_i\right)^2 + \left(\sum_{i=1}^{n} e_i\right)^2}$$

(5.2)

Where: $L_i$ represents the squared sum of the factor loadings for each construct and $e_i$ is the sum of the error variances for a construct.

### 5.7.12.2 Validity

Validity shows the correctness of measurement such that the differences in the measurements reflect the true differences being measured (Saunders et al., 2016).

#### 5.7.12.2.1 Construct Validity

Construct validity, which consists of convergent and discriminant validity is concerned with whether scores measure a target hypothetical construct, which is latent and can be measured only indirectly through its indicators. There is no single definitive test for the validity of a construct, nor is such test established in a single study. Rather, measurement-based research usually involves an aspect of construct validity. Convergent validity assesses the level of correlation among measures of the same construct. Variables presumed to measure the same construct show convergent validity if their inter-correlations are appreciable in magnitude. In other words, the evidence of high correlations signifies the validity of measures such that the constructs
measured what they intend to measure. Convergent validity can also be demonstrated by assessing the percentage of variance shared by the measurement items of a construct. A higher percentage share of variance implies that the individual measurement items of the construct are convergent, hence confirms convergent validity (Hair et al., 2010). This study evaluates convergent validity based on the size of the factor loadings, the average variance extracted (AVE) and reliability.

5.7.12.2.2 Factor loadings.

Factor loadings assessment is an essential means of establishing convergent validity such that high loadings confirm evidence of convergence. In standard practice, all factor loadings are expected to satisfy the minimum criteria of statistical significance, with 0.5 or higher values of standardised factor loading (Hair et al., 2010; Bagozzi, 1981). Cohen (1988) suggests a less stringent threshold of more than 0.3 as acceptable. Nunnally (1978) offered a rule of thumb of cronbach alpha values of 0.70 and above as preferable to demonstrate convergent validity. This study considers factor loadings of more than 0.3 as acceptable following the suggestions of Cohen’s (1988).

5.7.12.2.3 Average Variance Extracted (AVE)

The AVE assesses convergent validity. The average variance extracted is that proportion or percentage of variance in an item that is captured by the construct (Hair et al., 2010). Examining the reliability of measures and assessing the validity using AVE are important steps in SEM.

The AVE is estimated following the formula proposed by Hair et al. (2010, p.709) below:
\[ \text{AVE} = \frac{\sum_{i=1}^{n} L_i^2}{n} \]

Where: \( L_i \) is the standardized loadings, and \( n \) is the number of items.

This study applies an AVE of at least 0.5 to confirm convergent validity as suggested by Fornell and Larcker (1981).

Discriminant validity assesses whether measurement constructs theoretically designed to measure different concepts are highly correlated or not. Discriminant validity is supported if the variables presumed to measure different constructs are not highly correlated.

5.7.13 Common method Bias (CMB)

The common method bias is a potential bias in the data sample resulting from systematic and random measurement error, which influences the accurate measurement of the links between the variable constructs (Chang et al., 2010). Systematic error remains the most pronounced kind of measurement error that has posed serious problems to research studies (Podsakoff et al., 2003). Systematic measurement error can cause Type I and Type II errors by deflating or inflating the observed relationships between variable constructs (Podsakoff et al. 2003; Chang et al., 2010). Common method bias arises due to common method variance (CMV). Richardson et al. (2009) defined CMV as the “systematic error variance shared among variables measured with and introduced as a function of the same method and/or source” (p.763). CMV is the amount of spurious covariance shared among measurement variables because of the common method applied during the data collection process (Malhotra et al., 2006, p.1865). In other words, CMV is the “variance that is attributable to the measurement method rather than to the constructs the measures represent” (Podsakoff et al., 2003, p. 879). The presence of CMB could be
confirmed if the majority (e.g., above 50%) of the variance is explained by a single factor in the model (Gaskin, 2012).

Scholars agree that common method bias may be a threat, if a single source self-reported questionnaire survey is applied to collect data sample from the same participants within the same time interval (MacKenzie and Podsakoff et al. 2012). However, there is an ongoing debate regarding the nature and likelihood of common method bias in self-reported survey data. Some researchers regard common method variance as a common problem that can be controlled for (e.g., Podsakoff et al., 2003; Richardson et al., 2009). Others see it as a concept with no well-documented evidence to support its existence and argue that controlling for common method bias is an exaggeration of the reality of issues (Spector, 2006; Malhotra et al. 2006). Podsakoff et al. (2003) identified some sources of common method bias such as “method effects arising from a common source rater, method effects produced by item characteristics, and method effects produced by context measurement” (p.881-885).

A widely used statistical technique for identifying common method variance is the Harman’s single-factor test (Podsakoff et al., 2003). This technique checks to confirm whether the majority of variance in the data sample is attributed to a single variable (Chang et al., 2010). It assumes the existence of CMV if the amount of variance extracted by a single factor is above 50% of the total factor variances in the model (Podsakoff et al., 2003). The current study adopts the Harman’s single-factor test to evaluate 24 survey items to check if CMB exist in the study. The study applied EFA to carry out a rotational phase analysis on the 24 items for all the constructs, while constraining the number of variables to one (MacKenzie and Podsakoff et al. 2012; Gaskin, 2012). From the Harman’s single factor test analysis shown in appendix 4,
the results of this study confirm that only 30.40% of the variance extracted is explained by a single factor. This clearly shows that CMB is not a threat to this study. Although, Harman`s single factor test has been widely used by researchers, it is being criticized for its restricted explanatory power because it only indicates if CMV is present or not (Podsakoff et al., 2003; Richardson et al., 2009). Scholars argue that the Harman`s single factor test cannot effectively control for or partial out the effects of common variance and should rather be used as a diagnostic technique to assess the level of CMB (Podsakoff et al., 2003). Several alternative post hoc statistical methods have been proposed to replace Harman`s single factor test in evaluating CMB. Examples of such methods are the unmeasured latent method construct (ULMC), the CFA marker approach and the correlational marker approach (Lindell and Whitney, 2001; Williams et al., 2010). Those who proposed the use of these methods claimed that they not only detect CMV but are also very effective in correcting issues of CMV (Hair et al., 2010). However, there is unresolved argument among scholars on the efficacy of these methods in correcting CMV as they claim. A study by Richardson et al. (2009) thoroughly investigated the appropriateness of these so-called post hoc statistical methods and found that “all techniques produced highly inaccurate corrected correlations” (Richardson et al., 2009, p. 798). Their study therefore concludes that applying these methods will only mislead researchers to assume the absence of CMV thereby biasing the sample data. Considering the ongoing controversy and the potential risks involved in using such post hoc methods, the current study preferred the most widely accepted and used technique (i.e., Harman`s single factor test) in evaluating CMB.
5.8 Types of estimators for SEM analysis

SEM models vary from multiple regressions such that while SEM estimation procedures tend to minimise the residuals (e.g., the difference between the model variances/covariances and the observed sample data variances/covariances), the multiple regression analysis techniques minimize the discrepancies between the observed values and the fitted values of the dependent or response variables. SEM applies two kinds of estimators to analyse data. These are the maximum likelihood (ML) and the generalized least squares (GLS).

The discrepancy function \( F_{ml} \) for the maximum likelihood method (ML), is represented as:

\[
F_{ml} = \log|s| - \log|\Sigma| + \text{tr}(s\Sigma^{-1}) - k \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots (5.4)
\]

Where:
- \( \log \) represents the natural logarithm function (base e).
- \( || \) refers to the determinant of the matrix.
- \( k \) represents the number of variables in the correlation (or covariance) matrix.
- \( \text{tr} \) = the trace matrix algebra function, which sums diagonal elements.
- \( S = \) observed matrix.
- \( \Sigma = \) reproduced matrix.
- \( \Sigma^{-1} = \) inverse of matrix \( \Sigma \).

There are some important advantages for using the ML estimator. (1) ML reduces biases associated with large data sample estimation procedure (e.g., ML neither overestimate nor underestimate the corresponding population parameters); (2) ML solutions are not affected by changes in variable scale; (3) ML solutions are efficient with minimum variance for both small and large data samples.
Finally, the distribution of the parameter estimates tends to be normally distributed as data sample increases.

ML follows the normality assumption to estimate continuous data. Although, for data, which severely violate the normality assumption, the ML standard errors estimate may be biased. This bias enlarges the model chi-square statistic that causes type 1 error. However, the researcher can improve the normality of data by employing some remedial steps. First, normality can be improved by carrying out log transformations of non-normal variables data. Second, remove outliers from data sample. Third, apply bootstrapping procedures, while estimating variances of parameter estimates (Bollen and Stine, 1993; Efron and Tibshirani, 1993; Shipley, 2000). Finally, robust estimators such as MLM and MLR that allow for non-normality can be applied (Satorra and Bentler, 1988 and Bentler, 1995, 2005). Robust ML estimators, which address non-normality issues are available in Mplus software package used for data analysis in this study. The first adjusted ML estimator called the MLM was proposed by Satorra and Bentler (1988) and Bentler (995, 2005) to address the normality assumption. The MLM provides a rescaled chi-square statistic with robust SEs and a mean adjusted $\chi^2$ statistic called the Satorra-Bentler $\chi^2$ (SB$\chi^2$), which incorporates a scaling correction for the $\chi^2$ (Hoogland, 1999; Boomsma and Hoogland, 2001; Muthen and Muthen, 1998–2010). The Satorra-Bentler $\chi^2$ (SB$\chi^2$) is represented as:

$$SB\chi^2 = \frac{ML\chi^2}{d}$$

where:

- $d$ = the correction factor according to the degree of violation of normality.
- ML = maximum likelihood estimator.
An alternative robust estimator is the MLR. The MLR $x^2$ statistic being referred as the Yuan–Bentler $x^2$ ($\text{YB}x^2$) test statistic was proposed to address both the issue of normality violation and that of missing values (Muthen and Muthen, 1998–2010; Yuan and Bentler, 2000). The formula representing the scaling correction factor ($\text{YB}x^2$) for the Yuan-Bentler $x^2$ is shown below:

$$\text{YB}x^2 = \frac{\text{ML}x^2}{d} \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots (5.6)$$

where:

– $d$ = the correction factor according to the degree of violation of normality.
– ML = maximum likelihood estimator.

The MLR estimator is suitable for smaller sample sizes (Muthen, 2002). Another advantage of the MLR is that it can adequately estimate dataset with some missing data. The current study selected the Mplus for data analysis after considering its efficacy in evaluating SEM models. Mplus uses the numerical integration algorithm, which allows the ML family of estimators such as the ML, MLM, and MLR to compute SEM models consisting continuous latent variables and categorical outcomes.
Table 5.1. Showing summary of different estimators depending on the type of data to be analysed.

<table>
<thead>
<tr>
<th>DATA TYPE AND NORMALITY ASSUMPTION</th>
<th>RECOMMENDED ESTIMATOR</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CONTINUOUS DATA</strong></td>
<td></td>
</tr>
<tr>
<td>1. APPROXIMATELY NORMAL DISTRIBUTION</td>
<td>ML</td>
</tr>
<tr>
<td>2. VIOLATION OF NORMALITY ASSUMPTION</td>
<td>ML (in case of moderate violation MLM, MLR, Bootstrap</td>
</tr>
<tr>
<td><strong>ORDINAL/CATEGORICAL DATA</strong></td>
<td></td>
</tr>
<tr>
<td>1. APPROXIMATELY NORMAL DISTRIBUTION</td>
<td>ML (if at least 6 response categories) MLM, MLR (if at least 4 response categories) WLSMV (binary response or 3 response categories)</td>
</tr>
<tr>
<td>2. VIOLATION OF NORMALITY ASSUMPTION</td>
<td>ML (if at least 6 response categories MLM, MLR (if at least 4 response categories) WLSMV (in case of severe violation of normality)</td>
</tr>
</tbody>
</table>

5.9 Overall goodness-of-fit indices

5.9.1 The model $x^2$ statistic:

The Chi-square ($X^2$) statistic is an absolute fit index for structural models, which is represented as:

$$x^2 = F_{ml}(N - 1) \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots (5.7)$$

Where: $F_{ml}$ is the minimum value of the fitting function and $N$ is the sample size for evaluating the specified model. The product function above is distributed as $X^2$ if the specified model is correct and the data sample is multivariate normal. The $X^2$ statistic assesses the level of the differences between the data sample estimated
variance/covariance matrices and that of the model. SEM chi-square testing is different from the traditional statistical testing, where a significant $X^2$ statistical test is desired. In SEM, a nonsignificant chi-square test denotes a good fit for structural models rather than a significant $X^2$. In other words, a nonsignificant chi-square test will not reject the null hypothesis (i.e., $H_0$: the residual matrix is zero or there is no difference between the model estimated variances/covariances and the observed sample variances/covariances). A smaller $X^2$ corresponds to good fit, while a bigger $X^2$ represents a bad fit, and a chi-square value of zero confirms a perfect fit. Joreskog (1969) initiated the model $X^2$ statistic fit test in SEM to objectively evaluate factor analysis rather than relying on subjective decisions. However, there are some limitations associated to the $X^2$ statistic. One, the $X^2$ test is highly sensitive to sample size due to its definition (i.e., $X^2$ is defined as $N - 1$ times the fitting function). Scholars argue that the larger the sample size, the more likely the chi-square test becomes significant resulting to type I error of rejecting the correct model hypothesis. This means the possibility of rejecting a model will increase when the data sample size increases even with small difference between the observed and the model estimated variance/covariance matrices. Two, the fitting function may not follow the $X^2$ distribution pattern for a small data sample size. Three, the $X^2$ value increases with non-normal data especially for variables with highly skewed and kurtotic distributions; hence $X^2$ is very sensitive to the multivariate normality assumption. Lastly, the $X^2$ value depends on the number of variables such that it increases as the number of variables in the model increase. These limitations suggest that the significance of the $X^2$ test statistics should not be the only criteria to reject a model. In attempt to address the limitations of the $X^2$ test, several alternative fit indices have been proposed for testing model fit.
5.9.2 Root Mean Square Residual (RMR) and Standardized Root Mean Square Residual (SRMR)

These are fit indices that are created based on comparing the difference between the observed and model variance/covariance matrices represented as (S) and (Σ) respectively. The deviations called the residual matrix (S – Σ) are used in estimating the RMR or the SRMR. The lesser the differences between the elements of S and Σ, the smaller the value of the RMR or SRMR. The value ranges between 0.00 and 1.00 inclusive. The more the value tends towards zero the better the fit. A model with a value of 0.08 or less is deemed to have a good fit to the data. The standardised value (SRMR) is preferably reported because it is relatively easier to interpret. Standardization helps to remove the effects of the scale of the variable affecting the residuals of the model. Finally, the Weighted Root Mean Square Residual (WRMR) is an alternative fit index most suitable for evaluating the model fit for categorical data estimation because it follows the WLS or DWLS technique. WRMR with value less than 1 represents a good model fit.

5.9.3 Parsimonious fit indices

Parsimonious fit indices help to evaluate how well a model explains data with a minimum number of predictive variables. Models with optimal parsimony have the right number of parameters or variable predictors needed to effectively explain the model. While evaluating model fit, information on parsimony is very important and should not be avoided, hence the model result can be misleading. A widely known parsimonious model fit index is the RMSEA. Other than the model \( \chi^2 \) test statistic, RMSEA is another fit index that can provide information on the confidence interval (CI) around its estimated value (Browne and Cudeck, 1993).
RMSEA can be estimated using the following formula:

\[
RMSEA = \sqrt{ \frac{(x_s^2 - df_s)/N}{df_s}} \quad \text{... (5.8)}
\]

Where: \((x_s^2 - df_s)/N\) represents the rescaled non-centrality parameter sample size adjustment. By adjusting based on the model degrees of freedom, RMSEA evaluates the average lack of model fit per degree of freedom. The RMSEA ranges from 0 to 1 with zero suggesting a perfect fit, 0.08 or less suggests acceptable fit and greater than 0.10 confirms a poor fit (Browne and Cudeck, 1993; MacCallum et al., 1996; Byrne, 1998). Alternatively, Hu and Bentler (1999) suggest RMSEA≤0.06 as a rule of thumb for a good model fit. For a well-fitting model, the RMSEA reports with lower limit 90% CI close to 0 and the upper limit lower than 0.08. The RMSEA has become a very useful model fit index in SEM and simulation studies due to better performance when compared to other fit indices (Steiger, 1990; Browne and Cudeck, 1993; Sugawara and MaCallum, 1993; Marsh and Balla, 1994; Browne and Arminger, 1995).

Other alternative parsimonious fit indices are the information criteria indices commonly used for comparing and selecting best models, including non-nested models. These indices are represented with a general equation defined by Sclove (1987) as:

\[
-2 \ln(L) + a(n)m \quad \text{... (5.9)}
\]

Where, \(L\) represents the model maximum likelihood. The values of -2 ln(L) range from 0 to 1 such that the smaller values indicate a better fit. The term a(n)m represents a penalty included in -2ln(L) due to model complexity. In the equation, n and m represent the sample size and model free parameters respectively. Mplus applies three kinds of information criterion statistics including the Akaike’s information criterion (AIC), Bayesian information criterion (BIC) or Schwarz criterion, and sample size adjusted
BIC (ABIC) (Schwarz, 1978, Sclove, 1987 and Kelloway, 2015). These are defined as:

\[
\text{AIC} = -2 \ln(L) + 2m \quad \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots (5.10)
\]

\[
\text{BIC} = -2 \ln(L) + \ln(n) m \quad \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots (5.11)
\]

\[
\text{ABIC} = -2 \ln(L) + \ln(n^*) m \quad \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots (5.12)
\]

For AIC, the 2m replacing the penalty term a(n)m does not put into consideration the sample size, while for ABIC, sample size n is replaced with \( n^* = (n + 2)/24 \) to possibly reduce the penalty for larger data samples (Sclove, 1987; Muthen, 1998, 2004). For BIC a(n)m is replaced with ln(n)m. BIC and ABIC place higher penalties than AIC for model complexity because these indices include the product of sample size and the number of free parameters in the penalty term; hence, BIC and ABIC tend to favour small models with small number of free parameters.

**5.9.4 Incremental fit indices**

These categories of fit indices assess the goodness of fit of a specified model, while comparing with a more restrictive model that is nested in the specified model. With two nested models, one is usually considered as a special case of the other. The nested model is the null model, otherwise known as the baseline model or the independent model. While for more than two nested models, each model in the sequence includes the previous models in the series as special cases. Although, they are alternative models with similar specifications but subject to different restrictions. The two models at extremes of the sequence are the null model (i.e., simplest model) and saturated model (i.e., most complex model). The null model is the most restricted model with no free parameters, while the saturated model consists of several free parameters that equate the total number of variances/covariances of the observed
variables. The null model is assumed to give the worst goodness of fit of the data, while the saturated model is assumed to give the best or perfect goodness of fit. Incremental fit indices are widely used to evaluate SEM models. Examples of these types of fit indices that are commonly applied in practice are the CFI and TLI.

5.9.4.1 Comparative fit index (CFI):

According to Bentler’s (1990), the CFI compares between the specified model and the null model, which postulates that all covariances of the observed factors are zero. Mathematically, the CFI can be defined as:

\[
\text{CFI} = \frac{1 - \max \left( \frac{(x_t^2 - df_t)}{x_n^2 - df_n} \right)}{\max \left( \frac{(x_t^2 - df_t)}{x_n^2 - df_n} \right)} \ldots \ldots \ldots \ldots \ldots \ldots (5.13)
\]

Where:

- \( x_t^2 \) = the chi^2 value of the specified/estimated theoretical model.
- \( df_t \) = the degrees of freedom of the specified/estimated theoretical model.
- \( x_n^2 \) = the chi^2 value of the null model.
- \( df_n \) = degrees of freedom of the null model.
- max = represents the use of the highest value, including zero if zero is the highest value.

The CFI values range from a minimum of 0 to a maximum of 1. All the CFI values from the analysis results outside this range are adjusted to 0 if less than zero or adjusted to 1 if more than one. Like the R^2, the CFI indicates a worst fit if its value equals zero (CFI=0) and a perfect or best goodness of fit if its score equals one (i.e., CFI=1). According to Hu and Bentler (1998, 1999), as a minimum rule of thumb, they suggest CFI values ranging from 0.90 to 0.95 as cut-off to be considered as acceptable and good fit to the data. An advantage of the CFI fit index is the ability to predict goodness
of fit for both big and small data samples (Bentler, 1995). Although, the CFI relies on the correlations in the sampled data. This means that the CFI will be low if the average correlation between the variables is low.

5.9.5.1 Tucker–Lewis index (TLI) or non-normed fit index (NNFI)

The Tucker–Lewis index (TLI) initially proposed by Tucker and Lewis, (1973) is another type of incremental fit index for comparing the lack of fit of the specified model with that of the baseline model. TLI is mathematically defined as follows:

$$
\text{TLI} = \frac{\left( \frac{\chi^2_n}{df_n} \right) - \left( \frac{\chi^2}{df} \right)}{\left( \frac{\chi^2_n}{df_n} \right) - 1}
$$

(5.14)

Where:

- \( \chi^2_n \) = the chi² value of the specified/estimated theoretical model.
- \( df_n \) = the degrees of freedom of the specified/estimated theoretical model.
- \( \chi^2 \) = the chi² value of the baseline model (i.e., null model).
- \( df \) = degrees of freedom of the baseline model (i.e., null model).

Unlike the CFI, TLI penalizes the specified model’s lack of parsimony by reducing the number of the degrees of freedom. While, the AIC and BIC fit indices are used for comparing non-nested models, the CFI and the TLI are applied for comparing nested models.

A major argument among scholars that is yet unclear is about the choices of fit indices to adopt in practice. Hoyle and Panter (1995) recommended the use of chi-square or scaled chi-square, goodness-of-fit index (GFI), and the minimum of two incremental fit indices, preferably the TLI and CFI, and parsimonious fit indices such as RMSEA, AIC and BIC. Another study by Jaccard and Wan (1996) alternatively suggests
selecting chi-square, GFI, the SRMR, RMSEA, and the CFI for use in assessing model fit. The different recommendations deduce that the issue of selecting the appropriate fit indices for use has not been unanimously agreed on. The reason could be based on considerations regarding the theoretical and methodological foundations of various studies. For example, issues of sample size, methods of estimation, model complexity, and the type of data must be considered before selecting the fit indices deemed appropriate for any study. The availability of several fit indices clearly indicates that relying exclusively on a single index to evaluate a hypothesized SEM model could misrepresent the true situation and possibly mislead the interpretation of result findings. Researchers therefore advise that multiple fit indices should be applied, while evaluating and reporting results to avoid wrong assessment of model fit (Bollen, 1989; Bollen and Long, 1992; Tanaka, 1993; Bentler, 2007). The common model fit indices reported in research practice are the model chi-square statistic, the RMSEA, the CFI, TLI, and the SRMR. The guidelines for justifying a model fit, while applying the family of maximum likelihood estimators (e.g., ML, MLM, MLR) for data estimation are recommended by Hu and Bentler (1999) and Schreiber et al. (2006) as follows: RMSEA value at ≤ 0.06, having confidence interval at 90% values ranging between 0 and 1.00; SRMR value at ≤ 0.08; and CFI and TLI values at ≥ 0.95.

A study by Chen et al. (2008) advises researchers not to place too much emphasis on some specific fit indices as criteria for effective evaluation of a model fit. Their findings show how the generally accepted threshold value of 0.05 for RMSEA penalizes or rejects good models due to smaller data sample size (i.e., N < 100). Based on their results they suggest that scholars should support their statistical findings with some form of human judgment to enhance the rationality of their decision, while evaluating a model goodness-of-fit rather than applying a universal threshold for all models.
Furthermore, that a model shows good fit indices does not fully certify the model accuracy because other different model components are also considered, while assessing specific models. For instance, the R-squares of equations should fall within acceptable limits. Again, the model estimates should not contain improper solutions such as negative variance and correlations greater than 1 or less than -1. Another important aspect to consider for model fit is to confirm if the standardised residuals results provide useful information regarding the degree of proximity between the estimated and the observed variances and covariances. A standardized residual value higher than 2.58 is reasonably large (Joreskog and Sorbom, 1989). Very large residuals indicate a poor model fit. Finally, the coefficient estimates of the model should be interpretable. Abnormal result from model components is a sign that the model fits the data poorly. Hence, relying absolutely on the goodness-of-fit indices to justify a model fit not best practice, except the other component results of the model make sense. While selecting one or two indices from each category of fit (i.e., absolute, parsimonious, and incremental fit indices categories), it is vital to recognize that model fit indices do not totally justify the validity of the research findings. In other words, assessing model fit is very necessary but not enough condition to validate the theory guiding the model predictions. Hence, researchers are advised to evaluate model fit using both goodness-of-fit indices and other criteria to examine the data.

In SEM, model with poor fit could be improved by modification, although some scholars disagree on model modification arguing that it follows a qualitative method procedure (e.g., grounded theory) by exploring the data to arrive at the result findings (Byrne, 2012; Kline, 2015). They argue that results of a poorly fitted model should be reported rather than trying to respecify the model. The idea is that hypothesis testing procedures is carried out to confirm theory and not to generate theory through data
exploration. Only qualitative analysis techniques like the grounded theory methods can be employed in exploring the data to generate theory (Byrne, 2012).

5.10 Ethical consideration

Ethical issues were considered throughout the process of data collection and the entire research project. Confidentiality, transparency, and consent are some of the principles followed for the study, while carrying out the survey. Respondents were fully informed of the purpose of the survey and the respondents’ consent to participate in the survey were obtained and recorded. Survey participants could quit the survey anytime they wanted, while in the process. The researcher ensured that the anonymity of the respondents is protected by not requiring any name or identification for the survey. To ensure confidentiality, the researcher was the only person with access to the research data. Furthermore, all secondary data accessed from public sources are reliable and legally accepted for research purpose. Finally, the study strictly adheres to MMU ethical guidelines or code of practice.
CHAPTER 6

DATA ANALYSIS AND PRESENTATION OF RESULTS

6.0 Chapter overview

The objective of this chapter is to test the main hypotheses using structural equation modelling and present the relevant results. This chapter is organized as follows: First, a brief recap of the overview of the study is presented together with the relationships investigated. Next, descriptive results are presented. Subsequently, confirmatory factor analysis was carried out to confirm the structure of all the latent variables in the model. The chapter further evaluates the direct and indirect effects of variables, and their interactions. It concludes with the presentation of results.

6.1 Recap of the overview of the study

The current research was conducted in Nigeria, a developing Sub-Saharan country located in West Africa, and samples comprised SMEs covering the six geopolitical zones of Nigeria. The investigation and understanding of the key factors affecting the success of SMEs is crucial especially in the current context, where unfavourable economic conditions and high unemployment rates have made it necessary for majority of the people to engage in entrepreneurial activity as a survival strategy. Research have shown that the results on the effect of entrepreneurial orientation (EO) on firm performance are mixed and some scholars argue that this relationship is contingent on the influence of other factors. Again, they emphasize that the findings are context specific. Hence, the need to investigate these findings in the Nigeria context.
This project draws on the RBV and RDT perspectives to test EO, firm network ties, managerial experience, and firm performance of SMEs in Nigeria. Several scholars argue that these theories were proposed based on findings of big firms in the developed economies and that there was need to examine their effectiveness among SMEs in developing countries like Nigeria.

The study further developed a conceptual model, which tested the direct, indirect and interaction effects of EO on firm performance by integrating firm network ties as mediators and managerial experience as moderator.

6.2 Conceptual framework

![Conceptual framework diagram]

Figure 6.1 Conceptual framework

6.3 Hypotheses

H1a: There is a direct and positive influence of entrepreneurial orientation on firm performance.

H1b: Innovativeness has direct and positive influence on firm performance.

H1c: Risk-taking has direct and positive influence on firm performance.
H1d: Proactiveness has direct and positive influence on firm performance

H2a: There is a direct and positive influence of entrepreneurial orientation on political network ties.

H2b: Innovativeness has direct and positive influence on political network ties.

H2c: Risk-taking has direct and positive influence on political network ties.

H2d: Proactiveness has direct and positive influence on political network ties.

H3a: There is a direct and positive influence of entrepreneurial orientation on business network ties.

H3b: Innovativeness has direct and positive influence on business network ties.

H3c: Risk-taking has direct and positive influence on business network ties.

H3d: Proactiveness has direct and positive influence on business network ties.

H4: Political network ties have direct positive influence on firm performance

H5: Business network ties have direct positive influence on firm performance

H6a: Political and business network ties mediate the relationship between entrepreneurial orientation and firm performance.

H6b: Political and business network ties mediate the relationship between innovativeness and firm performance.

H6c: Political and business network ties mediate the relationship between risk-taking and firm performance.

H6d: Political and business network ties mediate the relationship between proactiveness and firm performance.

H7: Managerial experience positively moderates the relationship between entrepreneurial orientation and firm performance. This hypothesis is divided into three sub-hypotheses:
H7a. Managerial experience positively moderates the relationship between innovativeness and firm performance

H7b. Managerial experience positively moderates the relationship between risk-taking and firm performance

H7c. Managerial experience positively moderates the relationship between proactiveness and firm performance

6.4 Usable questionnaire

A total number of 600 questionnaires were distributed and 371 were returned by respondents. Following the data preparation and assumption testing process, 61 questionnaires were removed from the analysis, leaving 310 usable questionnaires. This represented a 77.1% rate of usable questionnaires.

6.5 Descriptive results

6.5.1 Respondents’ demographics

A demographic profile of the respondents has been analysed to cover the manager’s age, gender, marital status, educational level, managerial experience, ethnicity, and religion. A further description of the sample in relation to the general firm characteristics of the business including firm age, size, and location were carried out.
6.5.1.1 Manager's gender

Table 6.1 Manager's gender

<table>
<thead>
<tr>
<th>Manager's gender</th>
<th>Frequency</th>
<th>Percent (%)</th>
<th>Cumulative percent (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>160</td>
<td>51.6</td>
<td>51.6</td>
</tr>
<tr>
<td>Female</td>
<td>150</td>
<td>48.4</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>310</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

From the results, the male managers form 51.6% of the sample, while female managers represent 48.4% of the sample.
6.5.1.2 Manager's age

The business manager's age was measured using four categories as indicated in table 6.2.

Table 6.2 Manager's age

<table>
<thead>
<tr>
<th>Manager's age</th>
<th>Frequency</th>
<th>Percent (%)</th>
<th>Cumulative percent (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between 18 and 29 years</td>
<td>34</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td>Between 30 and 39 years</td>
<td>82</td>
<td>26.5</td>
<td>37.4</td>
</tr>
<tr>
<td>Between 40 and 49 years</td>
<td>131</td>
<td>42.3</td>
<td>79.7</td>
</tr>
<tr>
<td>50 years and above</td>
<td>63</td>
<td>20.3</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>310</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

The results show that majority of the respondents fall between the age of 40 to 49 years (42.3%), followed by those between 30 and 39 years (26.5%). These two age categories collectively represent 68.8% of the sample. The age group between 18 and 29 years is the least represented, with only 11% of the sample.
6.5.1.3 Manager’s marital status

The marital status of the respondents was investigated using four categories; single, married, divorced, widow/widower. Frequencies associated with these categories are indicated in table 6.3.

<table>
<thead>
<tr>
<th>Manager’s marital status</th>
<th>Frequency</th>
<th>Percent (%)</th>
<th>Cumulative percent (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single</td>
<td>31</td>
<td>10.0</td>
<td>10.0</td>
</tr>
<tr>
<td>Married</td>
<td>165</td>
<td>53.2</td>
<td>63.2</td>
</tr>
<tr>
<td>Divorced</td>
<td>88</td>
<td>28.4</td>
<td>91.6</td>
</tr>
<tr>
<td>Widow/Widower</td>
<td>26</td>
<td>8.4</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>310</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

The results in table 6.3 show that majority of the respondents appear to be married (53.2%), followed by those who are divorced (28.4%). These two categories collectively represent 81.6% of the sample. The widows/widowers are the least represented, with only 8.4% of the sample.
6.5.1.4 Business manager's highest education

Education among the respondents was ascertained using their highest level of education measured using five categories.

**Table 6.4 Manager's highest education**

<table>
<thead>
<tr>
<th>Manager's Highest Education</th>
<th>Frequency</th>
<th>Percent (%)</th>
<th>Cumulative percent (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary Education (FSLC)</td>
<td>50</td>
<td>16.1</td>
<td>16.1</td>
</tr>
<tr>
<td>Secondary Education (SSCE, GCE, WASCE)</td>
<td>56</td>
<td>18.1</td>
<td>34.2</td>
</tr>
<tr>
<td>Polytechnic/College (OND, NCE)</td>
<td>108</td>
<td>34.8</td>
<td>69.0</td>
</tr>
<tr>
<td>College/University degree (HND, BSc, BA)</td>
<td>54</td>
<td>17.4</td>
<td>86.5</td>
</tr>
<tr>
<td>University post graduate degree (PGD, Masters, PhD)</td>
<td>42</td>
<td>13.5</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>310</strong></td>
<td><strong>100.0</strong></td>
<td></td>
</tr>
</tbody>
</table>

The results of the study show that majority of the respondents (i.e., 108; 34.8%) attained OND/NCE as their highest qualification. The category with College/University degree (HND, BA, BSc, B. ED) holders is the second to the highest and consists of 54 respondents (17.4% of the sample). On the other hand, the postgraduate degree holders represented the least number of respondents with a total of 42 (13.5% of the sample).
6.5.1.5 Managerial experience

The manager’s previous managerial experience was categorised based on the number of years of managerial experience. Table 6.5 shows the sample description of respondents. The results show majority of the managers acquired managerial experience of 3 to 5 years 106 (34.3%) followed by those with 6 to 10 years’ experience 77 (24.8%). The least numbers of respondents acquired more than 10 years’ experience 4 (1.3%).

Table 6.5 Managerial experience

<table>
<thead>
<tr>
<th>Managerial experience</th>
<th>Frequency</th>
<th>Percent (%)</th>
<th>Cumulative percent (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 1 year</td>
<td>50</td>
<td>16.1</td>
<td>16.1</td>
</tr>
<tr>
<td>Between 1 and 2 years</td>
<td>73</td>
<td>23.5</td>
<td>39.7</td>
</tr>
<tr>
<td>Between 3 and 5 years</td>
<td>106</td>
<td>34.2</td>
<td>73.9</td>
</tr>
<tr>
<td>Between 6 and 10 years</td>
<td>77</td>
<td>24.8</td>
<td>98.7</td>
</tr>
<tr>
<td>More than 10 years</td>
<td>4</td>
<td>1.3</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>310</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>
6.5.1.6 Manager’s ethnicity

The ethnicity of the respondents was investigated using three categories: Hausa, Igbo, Yoruba, and others. Frequencies associated with these categories are indicated in table 6.6. The results in table 6.6 show that majority of the respondents appear to be from Ibo 148 (47.7%), followed by those from Yoruba 57 (18.4%). These two categories collectively represent 66.1% of the sample. Respondents from Hausa are the least represented, with 16.8% of the sample.

Table 6.6 Manager's Ethnicity

<table>
<thead>
<tr>
<th>Manager's Ethnicity</th>
<th>Frequency</th>
<th>Percent (%)</th>
<th>Cumulative percent (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hausa</td>
<td>52</td>
<td>16.8</td>
<td>16.8</td>
</tr>
<tr>
<td>Ibo</td>
<td>148</td>
<td>47.7</td>
<td>64.5</td>
</tr>
<tr>
<td>Yoruba</td>
<td>57</td>
<td>18.4</td>
<td>82.9</td>
</tr>
<tr>
<td>Other(s)</td>
<td>53</td>
<td>17.1</td>
<td>100</td>
</tr>
<tr>
<td>Total</td>
<td>310</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>
6.5.1.7 Manager’s religion

The table 6.7 below shows the religious beliefs of respondents. The sample grouped the respondents into two categories (Christian, Muslim, and others).

<table>
<thead>
<tr>
<th>Manager's Religion</th>
<th>Frequency</th>
<th>Percent (%)</th>
<th>Cumulative percent (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Christian</td>
<td>157</td>
<td>50.6</td>
<td>50.6</td>
</tr>
<tr>
<td>Muslim</td>
<td>136</td>
<td>43.9</td>
<td>94.5</td>
</tr>
<tr>
<td>Other(s)</td>
<td>17</td>
<td>5.5</td>
<td>100</td>
</tr>
<tr>
<td>Total</td>
<td>310</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

The results in table 6.7 show that majority of the respondents are Christians 157 (50.6%), followed by Muslims 136 (43.9%).

6.5.1.8 Manager’s Ownership Status

The table 6.8 shows two categories of respondents (Owner/Manager, Non-owner manager). The results in table 6.8 show that majority of the respondents are owner-managers 178 (57.4%), followed by non-owner managers 132 (42.6%).

<table>
<thead>
<tr>
<th>Manager’s ownership Status</th>
<th>Frequency</th>
<th>Percent (%)</th>
<th>Cumulative percent (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Owner/Manager</td>
<td>178</td>
<td>57.4</td>
<td>57.4</td>
</tr>
<tr>
<td>Non-owner Manager</td>
<td>132</td>
<td>42.6</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>310</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>
6.5.2 Firm Characteristics

6.5.2.1 Firm Age

Firm age was categorised into six groups based on the start date of the business. Table 6.9 shows the various years the firms have been in existence from the date of incorporation/start.

**Table 6.9 Firm Age**

<table>
<thead>
<tr>
<th>Firm Age</th>
<th>Frequency</th>
<th>Percent (%)</th>
<th>Cumulative percent (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 years or less</td>
<td>29</td>
<td>9.4</td>
<td>9.4</td>
</tr>
<tr>
<td>Between 6 and 10 years</td>
<td>48</td>
<td>15.5</td>
<td>24.8</td>
</tr>
<tr>
<td>Between 11 and 15 years</td>
<td>87</td>
<td>28.1</td>
<td>52.9</td>
</tr>
<tr>
<td>Between 16 and 25 years</td>
<td>78</td>
<td>25.2</td>
<td>78.1</td>
</tr>
<tr>
<td>Between 26 and 50 years</td>
<td>44</td>
<td>14.2</td>
<td>92.3</td>
</tr>
<tr>
<td>More than 50 years</td>
<td>24</td>
<td>7.7</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>310</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

From the results, the study shows that the highest number of firms in the sample has existed between 11 and 15 years 87 (28.1%). The next highest number of firms are those that started business in the past 16 to 25 years 78 (25.2%). These two categories form 53.3% of the total sample. The lowest number of firms in the sample are those that have existed for more than 50 years.
6.5.2.2 Firm size

Firm size was measured based on the total number of employees in the firm. The study categorised sample into different groups as shown in table 6.10.

Table 6.10. Firm Size

<table>
<thead>
<tr>
<th>Firm Size</th>
<th>Frequency</th>
<th>Percent (%)</th>
<th>Cumulative percent (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 10 employees</td>
<td>46</td>
<td>14.8</td>
<td>14.8</td>
</tr>
<tr>
<td>Between 10 and 25 employees</td>
<td>57</td>
<td>18.4</td>
<td>33.2</td>
</tr>
<tr>
<td>Between 26 and 49 employees</td>
<td>100</td>
<td>32.3</td>
<td>65.5</td>
</tr>
<tr>
<td>Between 50 and 100 employees</td>
<td>62</td>
<td>20.0</td>
<td>85.5</td>
</tr>
<tr>
<td>Between 101 and 250 employees</td>
<td>45</td>
<td>14.5</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>310</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

The highest number of firms 100 (32.3%) in the sample have between 26 and 49 employees. The second highest number 62 (20%) in the sample are those having between 50 and 100 employees. The least number of firms 45 (14.5%) in the study are those having between 101 and 250 employees.

6.5.2.3 Industry

The study cut across major industries in the SMEs sector in Nigeria, including Agriculture, Mining and Quarry, Manufacturing, Building and Construction, Wholesale & Retail, Hotel & Restaurants, Transport & Communication, Financial Services, Real Estate, Educational Services, and Health & Social work.

From table 6.11, the sample description indicates that Wholesale & Retail, and Hotel & Restaurants industry recorded the highest number of firms in the sample with 59 (19.0%) each. The least number of firms 6 (1.9%) in the sample falls within the Health & Social work industry.
### Table 6.11. Industry

<table>
<thead>
<tr>
<th>Industry</th>
<th>Frequency</th>
<th>Percent (%)</th>
<th>Cumulative percent (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>15</td>
<td>4.8</td>
<td>4.8</td>
</tr>
<tr>
<td>Mining &amp; Quarry</td>
<td>22</td>
<td>7.1</td>
<td>11.9</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>22</td>
<td>7.1</td>
<td>19.0</td>
</tr>
<tr>
<td>Building &amp; Construction</td>
<td>31</td>
<td>10.0</td>
<td>29.0</td>
</tr>
<tr>
<td>Wholesale &amp; Retail</td>
<td>59</td>
<td>19.0</td>
<td>48.1</td>
</tr>
<tr>
<td>Hotel &amp; Restaurants</td>
<td>59</td>
<td>19.0</td>
<td>67.1</td>
</tr>
<tr>
<td>Transport &amp; Communication</td>
<td>24</td>
<td>7.7</td>
<td>74.8</td>
</tr>
<tr>
<td>Financial intermediation</td>
<td>21</td>
<td>6.8</td>
<td>81.6</td>
</tr>
<tr>
<td>Real Estate</td>
<td>20</td>
<td>6.5</td>
<td>88.1</td>
</tr>
<tr>
<td>Education</td>
<td>31</td>
<td>10.0</td>
<td>98.1</td>
</tr>
<tr>
<td>Health &amp; Social Work</td>
<td>6</td>
<td>1.9</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>310</strong></td>
<td><strong>100.0</strong></td>
<td></td>
</tr>
</tbody>
</table>
6.5.2.4 Firm Location

The firms included in the project were sampled across the six geo-political zones in Nigeria namely North-East, North-West, North-Central, South-West, South-East, and South-South zones. Table 5.12 shows the details of the results.

The North-Central recorded the highest number of sampled business firms 76 (24.5%) followed by South-West 70 (22.6%). North-East region recorded the least number of firms 27 (8.7%) for study.

Table 6.12 Firm Location

<table>
<thead>
<tr>
<th>Firm Location</th>
<th>Frequency</th>
<th>Percent (%)</th>
<th>Cumulative percent (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>South-East</td>
<td>39</td>
<td>12.6</td>
<td>12.6</td>
</tr>
<tr>
<td>South-South</td>
<td>51</td>
<td>16.5</td>
<td>29.0</td>
</tr>
<tr>
<td>South-West</td>
<td>70</td>
<td>22.6</td>
<td>51.6</td>
</tr>
<tr>
<td>North-Central</td>
<td>76</td>
<td>24.5</td>
<td>76.1</td>
</tr>
<tr>
<td>North-West</td>
<td>47</td>
<td>15.2</td>
<td>91.3</td>
</tr>
<tr>
<td>North-East</td>
<td>27</td>
<td>8.7</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>310</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

LOCATION

- South-East: 24%
- South-South: 16%
- South-West: 13%
- North-Central: 9%
- North-West: 15%
- North-East: 23%
6.6 Data screening and analysis

Data were analysed by employing structural equation modelling (SEM) with Mplus 8.2 software package. Several screening tests, which include issues of normality, multicollinearity, and common method bias were applied before carrying out the analysis. The tests were done in IBM SPSS 24.

6.6.1 Normality of data

This is to ascertain whether the data of the variables considered in the study are normally distributed. A common test for confirming data normality is by looking at the level of skewness and kurtosis in the data distribution (This research examined the level of skewness and kurtosis in the data distribution to confirm the normality of data. The range of values recommended for skewness and kurtosis is between -2 and +2 (George and Mallery, 2010). Results in appendix 2 show that the data of all items possess the characteristic of normal distribution.

6.6.2 Multicollinearity

To check for multicollinearity, we examined the variance inflation factor (VIF) for each of the variables in CFA and regression results. This study tested for EO and its dimensions (innovativeness, risk-taking and proactiveness) and networking ties as IVs and firm performance as DV and further tested for EO and its dimensions (innovativeness, risk-taking and proactiveness) as IVs and, political and business network ties as DVs. The results show no multicollinearity issue in the current study because all the cut off values are well below 10 (Hair et al., 2010). Thus, the initial screening tests confirm that there are no potential issues with data that may pose threat to the validity and reliability of the model.
6.6.3 Common method bias (CMB)

If data sample is collected from a single source at the same period, the problems of common method variance may arise, which may likely affect validity. To address the potential problem of common method variance, the study conducted confirmatory factor analysis and carried out the Harman’s one-factor test. Results clearly show that the first factor explains 30.40% of total variance explained, and five factors were found with eigenvalues greater than 1 as shown in appendix 3. These procedures show that common method bias is not a threat in the current study (Anwar et al., 2018). In addition to Harman’s one factor test, Chan (2008) states that CMB concerns may be exaggerated because the use of self-reported are not inherently flawed, especially when complex interactions of variables produced significant effects. Siemsen et al., (2010) supported Evans (1985) who found that significant interaction effects cannot be created if CMB exists. Hence, the significant interaction effects confirmed in this study is a strong evidence suggesting that common method bias is not an issue in this research.

6.6.4 Results on reliability and validity of measures

Assessing factor loadings, composite reliability (CR), Cronbach’s alpha (α), and average variance extracted (AVE).

6.6.4.1 Confirmatory factor analysis (CFA)

CFA was run in Mplus 8.2 to ascertain the factor structure, eliminate items with standardized factor loading below recommended threshold, and to assess the reliability and validity measurement constructs. First, the study evaluated the measurement model to test for validity and reliability of the constructs. The study validated the measurement model by establishing convergent and discriminant
validity. Convergent validity was assessed using average variance extracted (AVE). The study confirms AVE values above 0.05 as recommended by Hair et al. (2010). AVE higher than 0.05 indicates a higher variance in the respective construct compared to the error term. Similarly, AVE values for the constructs are above the values of the squared correlation of the constructs, thereby confirming discriminant validity (Hu and Bentler, 1999; Hair et al., 2010). Cronbach alpha values of all items and constructs are above the minimum criteria of 0.7 as suggested by Nunally (1979). Thus, satisfying the minimum criteria for fitness of measures giving credibility to the results of this study.

6.6.5 Structural models

In this study various hypotheses were tested via structural models. Since, this research has a mediator and moderator in its theoretical framework, bootstrapping is recommended to achieve valid and reliable results. This study tested the hypotheses with bootstrapping 5,000 at 95% bias-corrected confidence interval for a two-tailed significance p-value (*p < 0.05, **p < 0.01, ***p < 0.001). Testing for bootstrapping based on resampling from the observed sample provides estimate of standard errors. The general idea is that a subsample created through bootstrapping from the observed sample (i.e., original sample of study) relates to the observed sample in the same manner as the observed sample relates with the overall population (Cameron and Trivedi, 2010).
<table>
<thead>
<tr>
<th>Constructs</th>
<th>Factor loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Innovativeness (α = 0.860; CR = 0.862; AVE = 0.610)</strong></td>
<td></td>
</tr>
<tr>
<td>EOIN1: Our firm is the first to introduce new products/services compared with competitors</td>
<td>0.757</td>
</tr>
<tr>
<td>EOIN2: Our firm is good at developing new processes compared with competitors</td>
<td>0.810</td>
</tr>
<tr>
<td>EOIN3: Our firm easily recognises and develop new markets compared with competitors</td>
<td>0.768</td>
</tr>
<tr>
<td>EOIN4: Our firm is a leader in technology compared with competitors</td>
<td>0.789</td>
</tr>
<tr>
<td><strong>Risk-taking (α = 0.845; CR = 0.845; AVE = 0.577)</strong></td>
<td></td>
</tr>
<tr>
<td>EOR1: Our firm exploits risky market opportunities</td>
<td>0.777</td>
</tr>
<tr>
<td>EOR2: Our firm invests heavily on high-risk/high-return projects</td>
<td>0.783</td>
</tr>
<tr>
<td>EOR3: Our firm takes bold actions to achieve our goals</td>
<td>0.764</td>
</tr>
<tr>
<td>EOR4: Our firm always experiment new products and services with high probability of failure</td>
<td>0.713</td>
</tr>
<tr>
<td><strong>Proactiveness (α = 0.800; CR = 0.803; AVE = 0.577)</strong></td>
<td></td>
</tr>
<tr>
<td>EOP1: We are first to identify customer needs</td>
<td>0.765</td>
</tr>
<tr>
<td>EOP2: Our firm initiates actions to which competitors respond</td>
<td>0.806</td>
</tr>
<tr>
<td>EOP3: Our firm proactively pursues market opportunities</td>
<td>0.705</td>
</tr>
<tr>
<td><strong>Business network ties (α = 0.880; CR = 0.880; AVE = 0.577)</strong></td>
<td></td>
</tr>
<tr>
<td>BUSNET1: Our firm has built good connections with suppliers</td>
<td>0.827</td>
</tr>
<tr>
<td>BUSNET2: Our firm has built good connections with customers</td>
<td>0.803</td>
</tr>
<tr>
<td>BUSNET4: Our firm has built good connections with technological collaborators</td>
<td>0.771</td>
</tr>
<tr>
<td>BUSNET5: Our firm has built good connections with marketing-based collaborators</td>
<td>0.814</td>
</tr>
<tr>
<td><strong>Political network ties (α = 0.742; CR = 0.753; AVE = 0.507)</strong></td>
<td></td>
</tr>
<tr>
<td>POLNET2: Our firm has developed good connections with officials in regulatory and supporting organizations such as tax bureaus and commercial administration bureaus</td>
<td>0.673</td>
</tr>
<tr>
<td>POLNET3: Top managers at our firm have good relationship with state and local level government officials</td>
<td>0.824</td>
</tr>
<tr>
<td>POLNET4: Our firm has spent substantial resources from the company in building good relationships with government officials</td>
<td>0.624</td>
</tr>
<tr>
<td><strong>Firm performance (α = 0.895; CR = 0.596; AVE = 0.898)</strong></td>
<td></td>
</tr>
<tr>
<td>FP1: Firm’s average sales growth for the last three years compared with our competitors</td>
<td>0.671</td>
</tr>
<tr>
<td>FP2: Firm’s overall average profitability for the last three years compared with our competitors</td>
<td>0.705</td>
</tr>
<tr>
<td>FP3: Firm’s average return on investment for the last three years compared with our competitors</td>
<td>0.852</td>
</tr>
<tr>
<td>FP4: Average market share growth for the last three years compared with our competitors</td>
<td>0.742</td>
</tr>
<tr>
<td>FP6: Customer loyalty/retention for the past three years compared with competitors</td>
<td>0.834</td>
</tr>
<tr>
<td>FP7: Quality reputation and award achievement for the past three years compared with competitors</td>
<td>0.809</td>
</tr>
<tr>
<td></td>
<td>Mean</td>
</tr>
<tr>
<td>--------</td>
<td>------</td>
</tr>
<tr>
<td>1</td>
<td>Firm age</td>
</tr>
<tr>
<td>2</td>
<td>Firm size</td>
</tr>
<tr>
<td>3</td>
<td>Industry</td>
</tr>
<tr>
<td>4</td>
<td>Managerial experience</td>
</tr>
<tr>
<td>5</td>
<td>Innovativeness</td>
</tr>
<tr>
<td>6</td>
<td>Risk-taking</td>
</tr>
<tr>
<td>7</td>
<td>Proactiveness</td>
</tr>
<tr>
<td>8</td>
<td>Business network ties</td>
</tr>
<tr>
<td>9</td>
<td>Political network ties</td>
</tr>
<tr>
<td>10</td>
<td>Firm performance</td>
</tr>
</tbody>
</table>

*p < 0.05, **p < 0.01, ***p < 0.001
6.6.6 Correlation

Table 6.14 shows the values of correlation among the variable constructs. Results give support for proposed hypotheses of the study. EO and its components positively relate to firm performance. It is also important to pinpoint that correlations among independent variables are evidently low. Hence, multicollinearity is not a threat to this study. All the mean and standard deviation values of the various constructs are clearly presented in Table 6.14.

6.6.7 Discriminant Validity

Table 6.14 assesses discriminant validity by comparing the AVE with the squared correlations of constructs.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Innovativeness</td>
<td>0.610</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Risk-taking</td>
<td>0.170</td>
<td>0.577</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Proactiveness</td>
<td>0.227</td>
<td>0.181</td>
<td>0.577</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 Business network ties</td>
<td>0.149</td>
<td>0.063</td>
<td>0.100</td>
<td>0.646</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 Political network ties</td>
<td>0.136</td>
<td>0.085</td>
<td>0.130</td>
<td>0.168</td>
<td>0.507</td>
<td></td>
</tr>
<tr>
<td>6 Firm performance</td>
<td>0.146</td>
<td>0.098</td>
<td>0.318</td>
<td>0.318</td>
<td>0.118</td>
<td>0.517</td>
</tr>
</tbody>
</table>

6.7 Mediation analysis (two mediators in series)

Different structural models were examined to ascertain the mediating effects of firm network ties by applying political and business network ties in series to mediate EO and firm performance. A further analysis that differentiates EO dimensions to form separate models was also carried out.
6.7.1 Entrepreneurial orientation and firm performance via political and business network ties

To be able to ascertain the direct and indirect influence of EO on firm performance, the study developed a second order construct integrating innovativeness, risk-taking and proactiveness to measure EO. This is to compare the EO results with the outcomes measured using the separate dimensions of EO.

![Path diagram](image_url)

**Figure 6.2 Path diagram showing the impact of entrepreneurial orientation on firm performance via political and business network ties.**

From figure 6.2, the study confirms a positive and significant effect of EO on firm performance ($\beta = 0.482$, $p < 0.001$). The results further reveal that EO has direct and positive influence on political network ties ($\beta = 0.516$, $p < 0.001$) and business network ties ($\beta = 0.365$, $p < 0.001$). On the other hand, the results from the firm performance with business network ties and political network ties show that business network ties have a positive and significant influence on firm performance ($\beta = 0.354$, $p < 0.001$). However, the results from the political network ties with firm performance reveal a
weak negative and insignificant effect of political network ties on firm performance. These results are similar when compared with those of the separate dimensions of EO (i.e., innovativeness, risk-taking and proactiveness) as can be seen in figure 6.3.

6.7.2 Estimates of total effect, direct effect, total indirect effect, and specific direct effects of entrepreneurial orientation on firm performance via political and business network ties

The mediation effect was tested by evaluating the indirect effect of EO on firm performance via political and business network ties. The results presented in table 6.17 show that the total indirect effect is significant and account for 23% of the total effect. This confirms a partial mediation effect between EO and firm performance.

Looking at the specific indirect effects, business network ties comprise 20.6% of the total effect, while the political network ties in isolation reveal a negative and insignificant mediation relationship (i.e., no mediation). However, the serial combination of both business and political network ties shows a weak positive mediation effect, which represents 6.5% of total effect.

Table 6.17 Table showing total, direct, total indirect and specific effects of the relationship between EO and firm performance via political and business network ties.

<table>
<thead>
<tr>
<th>Entrepreneurial &amp; Firm performance</th>
<th>Estimate (β)</th>
<th>% of total effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total effect</td>
<td>0.626***</td>
<td></td>
</tr>
<tr>
<td>Direct effect</td>
<td>0.482***</td>
<td></td>
</tr>
<tr>
<td>Total indirect effect</td>
<td>0.144**</td>
<td>23%</td>
</tr>
<tr>
<td><strong>Specific indirect effects</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EO→ POLNET→ BUSNET→ FP</td>
<td>0.041*</td>
<td>6.5%</td>
</tr>
<tr>
<td>EO→ BUSNET→ FP</td>
<td>0.129*</td>
<td>20.6%</td>
</tr>
<tr>
<td>EO→ POLNET→ FP</td>
<td>-0.026</td>
<td></td>
</tr>
</tbody>
</table>

Note: EO, POLNET, BUSNET, and FP represent Entrepreneurial orientation, Political network ties, Business network ties, and Firm Performance respectively. *p<0.05, **p<0.01, ***p<0.001.
6.7.3 The direct and indirect effects of the dimensions of EO on political and business network ties, and firm performance.

After evaluating the direct and indirect effects of innovativeness on firm performance, the results show that the model fit indices of the data are good (Chi-square/df = 392.829/237; RMSEA = 0.046; CFI = 0.958; TLI = 0.951; SRMR = 0.042).

![Path diagram showing the impact of innovativeness, risk-taking and proactiveness on firm performance via political and business network ties.](image)

*p< 0.05, **P< 0.01, ***p< 0.001

**Fig. 6.3** Path diagram showing the impact of innovativeness, risk-taking and proactiveness on firm performance via political and business network ties.

From figure 6.3, the findings show a weak positive and significant effect of innovativeness on firm performance (β = 0.159, p < 0.05). Furthermore, the direct effect results of innovativeness on political network ties (β = 0.296, p < 0.001) and business network ties (β = 0.323, p < 0.001) are positive and significant.

While, evaluating the direct effects of risk-taking from figure 6.3, the findings show a weak positive and significant effect of risk-taking on firm performance (β = 0.173, p < 0.05). The direct effect results from the analysis show that the influence of risk-taking
on political network ties ($\beta = 0.261, p < 0.001$) is significant and positive, while that of business network ties is not significant.

The direct effects of proactiveness as a dimension of EO was also examined as shown from the results in figure 6.3. The findings show a significant positive direct effect of proactiveness on firm performance ($\beta = 0.370, p < 0.001$). A further analysis shows that the direct influence of proactiveness on political network ties ($\beta = 0.361, p < 0.001$) and business network ties ($\beta = 0.192, p < 0.05$) is positive and significant. An investigation of the direct effects of political and business network ties on firm performance show that business network ties have positive and significant influence on firm performance ($\beta = 0.435, p < 0.001$). Although, the study found an insignificant effect of political network ties on firm performance.

6.7.4 Estimates of total effect, direct effect, total indirect effect, and specific indirect effects of innovativeness on firm performance via political and business network ties

After evaluating the indirect effect of innovativeness on firm performance via political and business network ties, the results presented in table 6.18, found that the total indirect effect is significant and account for 55% of the total effect. These results confirm partial mediation effect between innovativeness and firm performance. Again, the specific indirect effects from table 6.18 show that the mediation effect of business network ties is significant and account for 32.9% of the total effect, while the mediation effect of political network ties is insignificant. This implies that political network ties do not mediate the relationship between innovativeness and firm performance. However, the results show that when both business and political network ties are combined as
two mediators in series, their collective effect comes out significant and consists of 13.9% of the total effect.

### Table 6.18 Direct and indirect effects of innovativeness on firm performance via political and business network ties

<table>
<thead>
<tr>
<th>Innovativeness &amp; Firm performance</th>
<th>Estimate (β)</th>
<th>% of total effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total effect</td>
<td>0.353***</td>
<td></td>
</tr>
<tr>
<td>Direct effect</td>
<td>0.159*</td>
<td></td>
</tr>
<tr>
<td>Total indirect effect</td>
<td>0.194***</td>
<td>55%</td>
</tr>
<tr>
<td>Specific indirect effects</td>
<td></td>
<td></td>
</tr>
<tr>
<td>INNOV→ POLNET→ BUSNET→ FP</td>
<td>0.049*</td>
<td>13.9%</td>
</tr>
<tr>
<td>INNOV→ BUSNET→ FP</td>
<td>0.116**</td>
<td>32.9%</td>
</tr>
<tr>
<td>INNOV→ POLNET→ FP</td>
<td>0.030</td>
<td>-</td>
</tr>
</tbody>
</table>

Note: INNOV, POLNET, BUSNET, and FP represent Innovativeness, Political network ties, Business network ties, and Firm Performance respectively. *p<0.05, **p<0.01, ***p<0.001.

6.7.5 Estimates of total effect, direct effect, total indirect effect, and specific indirect effects of risk-taking on firm performance via political and business network ties.

The mediation effects were tested by examining the indirect effect of risk-taking on firm performance through political and business network ties. From the findings in table 6.19, the total indirect effect is positive and significant and account for 47.3% of the total effect. This confirms a partial mediation effect between risk-taking and firm performance. A further consideration of the specific indirect effects from table 6.19 show that the mediation effects of both business and political network ties are insignificant. These imply that business and political network ties do not mediate the relationship between risk-taking and firm performance. However, the results show that when both business and political network ties are combined as two mediators in series, their collective effect comes out significant and comprises 16.5% of the total effect.
Table 6.19 Table showing total, direct, total indirect and specific effects of the relationship between risk-taking and firm performance via political and business network ties

<table>
<thead>
<tr>
<th>Risk &amp; Firm performance</th>
<th>Estimate (β)</th>
<th>% of total effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total effect</td>
<td>0.328**</td>
<td></td>
</tr>
<tr>
<td>Direct effect</td>
<td>0.173*</td>
<td></td>
</tr>
<tr>
<td>Total indirect effect</td>
<td>0.155**</td>
<td>47.3%</td>
</tr>
<tr>
<td>Specific indirect effects</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RISK→ POLNET→ BUSNET→ FP</td>
<td>0.054**</td>
<td>16.5%</td>
</tr>
<tr>
<td>RISK→ BUSNET→ FP</td>
<td>0.073</td>
<td>-</td>
</tr>
<tr>
<td>RISK→ POLNET→ FP</td>
<td>0.028</td>
<td>-</td>
</tr>
</tbody>
</table>

Note: RISK, POLNET, BUSNET, and FP represent Risk-taking, Political network ties, Business network ties, and Firm Performance respectively. *p<0.05, **p<0.01, ***p<0.001.

6.7.8 Estimates of total effect, direct effect, total indirect effect, and specific direct effects of proactiveness on firm performance via political and business network ties.

The mediation effects were tested by evaluating the indirect effects of proactiveness on firm performance via political and business network ties. From the results presented in table 6.20, the total indirect effect is positive and significant and represents 28.6% of the total effect. This confirms a partial mediation effect between proactiveness and firm performance.

Considering the specific indirect effects, the business network ties comprise 16.2% of the total effect, while the political network ties show an insignificant mediation relationship (i.e., no mediation). However, the serial combination of both business and political network ties confirms positive mediation effect, which account for 10.3% of total effect.
Table 6.20 Estimates of total, direct, total indirect and specific effects of the relationship between proactiveness and firm performance via political and business network ties

<table>
<thead>
<tr>
<th>Proactiveness &amp; Firm performance</th>
<th>Estimate (β)</th>
<th>% of total effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total effect</td>
<td>0.563***</td>
<td></td>
</tr>
<tr>
<td>Direct effect</td>
<td>0.370***</td>
<td></td>
</tr>
<tr>
<td>Total indirect effect</td>
<td>0.161***</td>
<td>28.6%</td>
</tr>
<tr>
<td><strong>Specific indirect effects</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PRO→ POLNET→ BUSNET→ FP</td>
<td>0.058*</td>
<td>10.3%</td>
</tr>
<tr>
<td>PRO→ BUSNET→ FP</td>
<td>0.091*</td>
<td>16.2%</td>
</tr>
<tr>
<td>PRO→ POLNET→ FP</td>
<td>0.012</td>
<td>-</td>
</tr>
</tbody>
</table>

Note: PRO, POLNET, BUSNET, and FP represent Proactiveness, Political network ties, Business network ties, and Firm Performance respectively. *p<0.05, **p<0.01, ***p<0.001.

6.9 Multi-group mediation analysis

6.9.1 Group analysis based on gender

6.9.1.1 Evaluating EO as a second order construct

Fit indices (Chi-square/df = 683.761/503, RMSEA = 0.048, CFI = 0.952, TLI = 0.947, SRMR = 0.065)

GROUP ONE – Male

![Path diagram showing the impact of entrepreneurial orientation on firm performance via political and business network ties for the male group](image)

*p< 0.05, **P< 0.01, ***p< 0.001

Figure 6.4 Path diagram showing the impact of entrepreneurial orientation on firm performance via political and business network ties for the male group
GROUP TWO – FEMALE

![Figure 6.5 Path diagram showing the impact of entrepreneurial orientation on firm performance via political and business network ties for female group](image)

Results from figures 6.6 and 6.7 confirm the positive and significant effect of EO on firm performance for both male and female group. The direct effect results from the analysis show that the influence of entrepreneurial orientation on political network ties for both males and females are significant and positive. The results further reveal that the effect of EO on business network ties is positive and significant for the female group, while that of the male group is not significant. An analysis on the effect of political network ties on firm performance is negative and significant for females, while that of the male group is not significant. Again, the direct effects of male and female business network ties on firm performance are both positive and significant.
Table 6.21 Estimates of total, direct, total indirect and specific effects of the relationship between EO and firm performance via political and business network ties for male and female

<table>
<thead>
<tr>
<th>Entrepreneurial orientation &amp; Firm Performance</th>
<th>Male Estimate (β)</th>
<th>% of total effect</th>
<th>Female Estimate (β)</th>
<th>% of total effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Effect</td>
<td>0.484***</td>
<td></td>
<td>0.711***</td>
<td></td>
</tr>
<tr>
<td>Direct Effect</td>
<td>0.245*</td>
<td></td>
<td>0.595***</td>
<td></td>
</tr>
<tr>
<td>Total Indirect Effect</td>
<td>0.239**</td>
<td>49.38%</td>
<td>0.116</td>
<td></td>
</tr>
<tr>
<td>Specific Indirect Effects</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EO→ POLNET→ BUSNET→ FP</td>
<td>0.062*</td>
<td>7.81%</td>
<td>0.025</td>
<td></td>
</tr>
<tr>
<td>EO→ BUSNET→ FP</td>
<td>0.065</td>
<td></td>
<td>0.179***</td>
<td>25.18%</td>
</tr>
<tr>
<td>EO→ POLNET→ FP</td>
<td>0.112</td>
<td></td>
<td>-0.087</td>
<td></td>
</tr>
</tbody>
</table>

Note: EO, POLNET, BUSNET, and FP represent Entrepreneurial orientation, Political network ties, Business network ties, and Firm Performance respectively. *p<0.05, **p<0.01, ***p<0.001.

The mediation effect was tested by evaluating the indirect effects of entrepreneurial orientation on firm performance via political and business network ties for males and females. From the results presented in table 6.21 above, it can be found that the total indirect effect for males is significant and account for 49.38% of the total effect, while that of females shows a non-significant result (i.e., no mediation for the female group).

This confirms a partial mediation effect between entrepreneurial orientation and firm performance for males only. Again, the specific indirect effects from table 6.21 show that the mediation effect of business network ties for females is significant and account for 25.18% of the total effect, while that of males is not significant. Also, the results show that when both business and political network ties were combined as two mediators in series, their indirect effect for males is significant and comprises 7.81% of the total effect. However, the indirect effect of business and political network ties when considered collectively in series for females is not significant.
6.9.1.2 The direct effects of the dimensions of EO on political and business network ties and firm performance based on gender.

After carrying out a multiple group analysis to evaluating the effects of EO on firm performance for males and females, the results show that the model fit indices of the data are good (Chi-square/df = 325.288/238, RMSEA = 0.049, CFI = 0.967, TLI = 0.962, SRMR = 0.055).

GROUP ONE - MALE

![Path diagram showing the impact of innovativeness, risk-taking and proactiveness on firm performance via political and business network ties for the male group.](image)

*P< 0.05, **P< 0.01, ***P< 0.001

Fig. 6.6 Path diagram showing the impact of innovativeness, risk-taking and proactiveness on firm performance via political and business network ties for the male group.
GROUP TWO – FEMALE

Fig. 6.7 Path diagram showing the impact of innovativeness, risk-taking and proactiveness on firm performance via political and business network ties for the female group.

From figure 6.6 and 6.7, the results for both the male and female group show the direct effect of innovativeness on firm performance as positive and significant. A further analysis shows that the influence of innovativeness on political network ties and business network ties for the male and female group are both significant and positive.

The results from the analysis in figures 6.6 and 6.7 show that the direct impact of risk-taking on firm performance came out positive and significant for the female group, while that of the male group is not significant. The findings also show that the influence of risk-taking on political network ties for both males and females is significant and positive. Again, the results show a positive and significant effect of risk-taking on business network ties for the female group, while that of the male group is not significant.

From figure 6.6 and 6.7, the results for the male and female group show that the direct effect of proactiveness on firm performance were all positive and significant. A further
analysis confirms that the influence of proactiveness on political network ties for the male and female group are both significant and positive. The direct impact of proactiveness and business network ties came out positive and significant for the female group, while that of the male group is insignificant.

The study also looked at the effect of political and business network ties on firm performance for both males and females. The result in figure 6.6 and 6.7 shows a positive and significant effect of business network ties on firm performance for both groups. Although, while considering the impact of political network ties on firm performance, only the male group came out positively significant, while that of the female is insignificant as can be clearly seen in figure 6.6 and 6.7.

Table 6.22 Estimates of total effect, direct effect, total indirect effect, and specific indirect effects of innovativeness on firm performance via political and business network ties for males and females.

<table>
<thead>
<tr>
<th>Innovativeness &amp; Firm performance</th>
<th>Male</th>
<th>% of total effect</th>
<th>Female</th>
<th>% of total effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Effect</td>
<td>0.304***</td>
<td></td>
<td>0.467***</td>
<td></td>
</tr>
<tr>
<td>Direct Effect</td>
<td>0.062</td>
<td></td>
<td>0.264**</td>
<td></td>
</tr>
<tr>
<td>Total Indirect Effect</td>
<td>0.242***</td>
<td>79.61%</td>
<td>0.204***</td>
<td>43.68%</td>
</tr>
<tr>
<td>Specific Indirect Effects</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>INNOV→POLNET→BUSNET→FP</td>
<td>0.054*</td>
<td>17.76%</td>
<td>0.044*</td>
<td>9.42%</td>
</tr>
<tr>
<td>INNOV→BUSNET→FP</td>
<td>0.068</td>
<td></td>
<td>0.186***</td>
<td></td>
</tr>
<tr>
<td>INNOV→POLNET→FP</td>
<td>0.120*</td>
<td>39.47%</td>
<td>-0.026***</td>
<td></td>
</tr>
</tbody>
</table>

Note: INNOV, POLNET, BUSNET, and FP represent Innovativeness, Political network ties, Business network ties, and Firm Performance respectively. *p<0.05, **p<0.01, ***p<0.001.

The mediation effects were tested by evaluating the indirect effect of innovativeness on firm performance via political and business network ties for males and females.

From the results presented in table 6.22, it can be found that the total indirect effect for males and females are both significant and account for 79.61% and 43.68% of the total effect respectively. This confirms a full mediation effect between innovativeness and firm performance for males and a partial mediation effect for those of females.
Again, looking at the specific indirect effects from table 6.22, it shows that the mediation effect of business network ties for females is significant and account for 39.83% of the total effect, while that of males is not significant. On the other hand, the mediation effect of political network ties for males is significant and represents 39.47%, while that of females is insignificant. A further evaluation of the result shows that when both business and political network ties are combined as two mediators in series, the indirect effect for both males and females were significant and account for 17.76% and 9.42% of the total effect respectively.

Table 6.23 Estimates of total effect, direct effect, total indirect effect, and specific indirect effects of risk-taking on firm performance via political and business network ties for males and females.

<table>
<thead>
<tr>
<th>Risk-taking &amp; Firm performance</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Estimate (β)</td>
<td>% of total effect</td>
</tr>
<tr>
<td>Total Effect</td>
<td>0.183*</td>
<td>72.68%</td>
</tr>
<tr>
<td>Direct Effect</td>
<td>0.050</td>
<td>0.253**</td>
</tr>
<tr>
<td>Total Indirect Effect</td>
<td>0.133*</td>
<td>72.68%</td>
</tr>
<tr>
<td>Specific Indirect Effects</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RISK → POLNET → BUSNET → FP</td>
<td>0.053*</td>
<td>28.96%</td>
</tr>
<tr>
<td>RISK → BUSNET → FP</td>
<td>-0.013</td>
<td>0.171**</td>
</tr>
<tr>
<td>RISK → POLNET → FP</td>
<td>0.093*</td>
<td>50.82%</td>
</tr>
</tbody>
</table>

Note: RISK, POLNET, BUSNET, and FP represent Risk-taking, Political network ties, Business network ties, and Firm Performance respectively. *p<0.05, **p<0.01, ***p<0.001

As can be seen in table 6.23, the mediation effect was tested by examining the indirect effect of risk-taking on firm performance via political and business network ties for males and females. From the results presented in table 6.23, it can be found that the total indirect effects for both the male and female group are significant and account for 72.68% and 43.15% of the total effect respectively. This confirms a full mediation effect between risk-taking and firm performance for males and a partial mediation effect for females.
The specific indirect effects from table 6.23 show that the mediation effect of business network ties for females is significant and account for 38.43% of the total effect, while that of males is not significant. In contrast, the mediation effect of political network ties for males is significant and represents 50.82%, while that of females is insignificant. A further evaluation of the results shows that when both business and political network ties are combined as two mediators in series, the indirect effect for both males and females are significant and account for 28.96% and 9.21% of the total effect respectively.

**Table 6.24 Estimates of total effect, direct effect, total indirect effect, and specific indirect effects of proactiveness on firm performance via political and business network ties for males and females**

<table>
<thead>
<tr>
<th>Proactiveness &amp; Firm performance</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Estimate (β)</td>
<td>% of total effect</td>
</tr>
<tr>
<td>Total Effect</td>
<td>0.442***</td>
<td></td>
</tr>
<tr>
<td>Direct Effect</td>
<td>0.289***</td>
<td></td>
</tr>
<tr>
<td>Total Indirect Effect</td>
<td>0.153** 34.62%</td>
<td></td>
</tr>
<tr>
<td><strong>Specific Indirect Effects</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PRO→ POLNET→ BUSNET→ FP</td>
<td>0.048* 10.86%</td>
<td></td>
</tr>
<tr>
<td>PRO→ BUSNET→ FP</td>
<td>0.027 -</td>
<td></td>
</tr>
<tr>
<td>PRO→ POLNET→ FP</td>
<td>0.078* 17.65%</td>
<td></td>
</tr>
</tbody>
</table>

*Note: PRO, POLNET, BUSNET, and FP represent Proactiveness, Political network ties, Business network ties, and Firm Performance respectively. *p<0.05, **p<0.01, ***p<0.001.*

The mediation effect was tested by evaluating the indirect effect of proactiveness on firm performance via political and business network ties for males and females. The results presented in table 6.24 show that the total indirect effects for males and females are both significant and account for 34.62% and 23.96% of the total effect respectively. This confirms a partial mediation effect between proactiveness and firm performance for both males and females.

Again, an evaluation of the specific indirect effects as shown in table 6.24 confirms that the mediation effect of business network ties for females is significant and account
for 24.44% of the total effect, while that of males is not significant. On the other hand, the mediation effect of political network ties for males is significant and represents 17.65%, while that of females is insignificant. A further evaluation of the results shows that when both business and political network ties are combined as two mediators in series, the indirect effect for both males and females are significant and account for 10.86% and 7.19% of the total effect respectively.

6.9.2 Multi-group analysis based on ownership status

A multiple group analysis to compare between owner-managers and non-owner managers was carried out to evaluate the effects of EO on firm performance, the results show that the model fit indices of the data meet acceptable criteria (Chi-square/df = 731.111/503, RMSEA = 0.054, CFI = 0.939, TLI = 0.934, SRMR = 0.066)

6.9.2.1 Evaluating EO as a second order construct

GROUP ONE – OWNER-MANAGER

![Path diagram showing the impact of entrepreneurial orientation on firm performance via political and business network ties for owner-manager subsample](image)

* * *
GROUP TWO – NON-OWNER MANAGER

![Path diagram]

*Figure 6.9 Path diagram showing the impact of entrepreneurial orientation on firm performance via political and business network ties for non-owner manager subsample.*

From figures 6.8 and 6.9, the results for the owner/manager \((\beta = 0.461, p < 0.01)\) and non-owner manager \((\beta = 0.510, p < 0.001)\) show that the direct effects of entrepreneurial orientation on firm performance were all positive and significant. A further analysis confirms that the influence of entrepreneurial orientation on political network ties for both the owner-manager \((\beta = 0.610, p < 0.001)\) and non-owner manager \((\beta = 0.441, p < 0.001)\) groups are significant and positive. The direct impact of entrepreneurial orientation on business network ties came out positive and significant for the owner-manager \((\beta = 0.428, p < 0.01)\) and non-owner manager \((\beta = 0.286, p < 0.01)\) group.

The study also looked at the effect of political and business network ties on firm performance for both owner-manager and non-owner managers. The result in figure 6.8 and 6.9 shows a positive and significant effect of business network ties on firm performance for both owner manager \((\beta = 0.423, p < 0.001)\) and non-owner manager \((\beta = 0.276, p < 0.01)\) groups. On the other hand, the impact of political network ties on
firm performance for both the owner/manager and the non-owner manager group came out insignificant shown in figure 6.8 and 6.9.

Table 6.25 Estimates of total effect, direct effect, total indirect effect, and specific indirect effects of the relationship between proactiveness and firm performance via political and business network ties for owner/manager and non-owner manager

<table>
<thead>
<tr>
<th>Entrepreneurial orientation &amp; Firm Performance</th>
<th>Owner/Manager</th>
<th>Non-Owner Manager</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Estimate (β)</td>
<td>% of total effect</td>
</tr>
<tr>
<td>Total Effect</td>
<td>0.642***</td>
<td></td>
</tr>
<tr>
<td>Direct Effect</td>
<td>0.461***</td>
<td></td>
</tr>
<tr>
<td>Total Indirect Effect</td>
<td>0.181</td>
<td></td>
</tr>
<tr>
<td>Specific Indirect Effects</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EO→ POLNET→ BUSNET→ FP</td>
<td>0.034</td>
<td>-</td>
</tr>
<tr>
<td>EO→ BUSNET→ FP</td>
<td>0.181**</td>
<td>28.19%</td>
</tr>
<tr>
<td>EO→ POLNET→ FP</td>
<td>-0.033</td>
<td></td>
</tr>
</tbody>
</table>

Note: EO, POLNET, BUSNET, and FP represent Entrepreneurial orientation, Political network ties, Business network ties, and Firm Performance respectively. *p<0.05, **p<0.01, ***p<0.001.

The mediation effect was tested by evaluating the indirect effects of entrepreneurial orientation on firm performance via political and business network ties for owner-manager and non-owner-manager. The results presented in table 6.25 confirm that the total indirect effects for both the owner/manager and the non-owner manager groups are not significant. However, when considering the specific indirect effects on business network ties on the relationship between EO and firm performance for both groups, the results show that the indirect effects of both groups are positively significant. For the owner-manager group, the specific indirect effects of business network ties account for 28.19% of the total effect, while for the non-owner manager group, the specific indirect effects of business network ties account for 12.97% of the total effect.
6.9.2.2 Evaluating the independent dimensions of EO based on ownership status

A multigroup analysis was carried out to evaluate the effects of EO dimensions on firm performance for owner/manager and non-owner manager. The results show that the model fit indices of the data appear good (Chi-square/df = 356.182/238, RMSEA = 0.057, CFI = 0.957, TLI = 0.950, SRMR = 0.057)

GROUP ONE: OWNER-MANAGER

![Path diagram showing the impact of innovativeness, risk-taking and proactiveness on firm performance via political and business network ties for the owner/manager group.](image)

*p< 0.05, **P< 0.01, ***p< 0.001

Fig. 6.10 Path diagram showing the impact of innovativeness, risk-taking and proactiveness on firm performance via political and business network ties for the owner/manager group.
GROUP TWO: NON-OWNER MANAGER

![Path Diagram](image)

*\( p < 0.05, **p < 0.01, ***p < 0.001 \)

Fig. 6.11 Path diagram showing the impact of innovativeness, risk-taking and proactiveness on firm performance via political and business network ties for non-owner manager group.

From figure 6.10 and 6.11, the results for the non-owner manager group show that the direct effect of innovativeness on firm performance (\( \beta = 0.224, p < 0.05 \)) is positive and significant, while that of the owner/manager is not significant. A further analysis shows that the direct influence of innovativeness on political network ties for the owner/manager (\( \beta = 0.370, p < 0.001 \)) and non-owner manager (\( \beta = 0.377, p < 0.001 \)) group are both significantly positive. Again, considering the direct effect relationship between innovativeness and business network ties, the study found that both the own/manager (\( \beta = 0.207, p < 0.05 \)) and non-manager (\( \beta = 0.311, p < 0.001 \)) group came out significantly positive.

Considering risk-taking, the results from figure 6.10 and 6.11 show positive and significant effect of risk-taking on firm performance for owner/manager (\( \beta = 0.168, p < 0.05 \)) and non-owner manager (\( \beta = 0.170, p < 0.05 \)) groups. A further evaluation of the direct influence of risk-taking on political network ties for owner/manager (\( \beta = 0.312, p \)
< 0.01) and non-owner manager (β = 0.281, p < 0.01) groups show that the effects are significant and positive. Again, the study examined the direct effect of risk-taking on business network ties for the two groups and found a positive and significant effect for non-owner manager’s category (β = 0.175, p < 0.05), while that of owner/manager group is not significant.

The direct effect of proactiveness on firm performance was also tested for both groups. The results in figure 6.10 and 6.11 clearly show a positive and significant effect for owner/managers (β = 0.279, p < 0.01) and non-owner managers (β = 0.438, p < 0.001). An examination of the direct effect of proactiveness on political network ties for both owner/manager (β = 0.448, p < 0.001) and non-owner manager (β = 0.279, p < 0.01) groups are found to be positive and significant. On the other hand, the direct effect of proactiveness on business network ties came out positive and significant for the owner/manager (β = 0.283, p < 0.001) group, while that of the non-owner manager group is insignificant.

The study further assesses the direct effect of political network ties and business network ties on firm performance for both the owner/manager and non-owner manager. The results in figure 6.19 and 6.20 show positive and significant effect of business network ties on firm performance for owner/managers (β = 0.495, p < 0.001) and non-owner managers (β = 0.375, p < 0.001). Although, while considering the impact of political network ties on firm performance, results for owner/manager and non-owner manager came out insignificant as shown in figure 6.10 and 6.11.
Table 6.26 Estimates of total effect, direct effect, total indirect effect, and specific indirect effects of innovativeness on firm performance via political and business network ties

<table>
<thead>
<tr>
<th>Innovativeness &amp; Firm performance</th>
<th>Owner/Manager</th>
<th>Non-Owner Manager</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Estimate (β)</td>
<td>% of total effect</td>
</tr>
<tr>
<td><strong>Total Effect</strong></td>
<td>0.353***</td>
<td></td>
</tr>
<tr>
<td><strong>Direct Effect</strong></td>
<td>0.129</td>
<td></td>
</tr>
<tr>
<td><strong>Total Indirect Effect</strong></td>
<td>0.223**</td>
<td>63.17%</td>
</tr>
<tr>
<td><strong>Specific Indirect Effects</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>INNOV→POLNET→BUSNET→FP</td>
<td>0.063*</td>
<td>17.85%</td>
</tr>
<tr>
<td>INNOV→BUSNET→FP</td>
<td>0.112*</td>
<td>31.73%</td>
</tr>
<tr>
<td>INNOV→POLNET→FP</td>
<td>0.047</td>
<td></td>
</tr>
</tbody>
</table>

*Note: INNOV, POLNET, BUSNET, and FP represent Innovativeness, Political network ties, Business network ties, and Firm Performance respectively. *p<0.05, **p<0.01, ***p<0.001.

The mediation effect was assessed and evaluated by examining the indirect effects of innovativeness on firm performance via political and business network ties for owner/manager and non-owner manager. From the results presented in table 5.26, the analysis shows that the total indirect effects for owner/manager and non-owner manager are both significant and account for 63.17% and 43.86% of the total effects respectively. These confirm full mediation effect between innovativeness and firm performance for owner/managers and a partial mediation effect for that of non-owner managers.

Again, an evaluation of the specific indirect effects as shown in table 6.26, confirms that the mediation effect of business network ties for owner/manager and non-owner manager is significant and account for 31.73% and 27.32% of the total effect respectively. On the other hand, the specific indirect effects as indicated in table 6.26, stipulates that the mediation effect of political network ties for owner/manager and non-owner manager is not significant. This implies that political network connection does not mediate the relationship between innovativeness and firm performance.
However, when political network ties and business network ties are combined in series, the mediation effect came out significant for both owner/managers and non-owner managers. The owner/manager group represents 17.85% of the total effect, while that of non-owner manager represents 10.78% of total effect as shown in table 6.26.

Table 6.27 Estimates of total effect, direct effect, total indirect effect, and specific indirect effects of risk-taking on firm performance via political and business network ties

<table>
<thead>
<tr>
<th>Risk-taking &amp; Firm performance</th>
<th>Owner/ Manager</th>
<th>Non-Owner Manager</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Estimate (β)</td>
<td>% of total effect</td>
</tr>
<tr>
<td>Total Effect</td>
<td>0.312***</td>
<td></td>
</tr>
<tr>
<td>Direct Effect</td>
<td>0.168*</td>
<td></td>
</tr>
<tr>
<td>Total Indirect Effect</td>
<td>0.144*</td>
<td>46.15%</td>
</tr>
<tr>
<td><strong>Specific Indirect Effects</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RISK→ POLNET→ BUSNET→ FP</td>
<td>0.063*</td>
<td>20.19%</td>
</tr>
<tr>
<td>RISK→ BUSNET→ FP</td>
<td>0.043</td>
<td>-</td>
</tr>
<tr>
<td>RISK→ POLNET→ FP</td>
<td>0.037</td>
<td>-</td>
</tr>
</tbody>
</table>

*Note: RISK, POLNET, BUSNET, and FP represent Risk-taking, Political network ties, Business network ties, and Firm Performance respectively. *p<0.05, **p<0.01, ***p<0.001

The mediation effects were examined by evaluating the indirect effect of risk-taking on firm performance via political and business network ties for owner/managers and non-owner managers. The results presented in table 6.27 show that the total indirect effects for owner/manager and non-owner manager are both significant and account for 46.15% and 44.22% of the total effects respectively. This confirms a partial mediation effect between risk-taking and firm performance for both the owner/manager and non-owner manager.

When the specific indirect effects of political and business network ties were considered separately, the study found that political and business network ties fail to mediate the relationship between risk-taking and firm performance for both groups. However, if both business and political network ties are combined as two mediators in
series, their combined indirect effect for both owner/manager and non-owner manager came out significant and account for 20.19% and 14.19% of the total effect respectively. This confirms the existence of mediation effect, when both political and business network ties are combined in series for both groups.

Table 6.28 Estimates of total effect, direct effect, total indirect effect, and specific indirect effects of proactiveness on firm performance via political and business network ties for owner/managers and non-owner managers.

<table>
<thead>
<tr>
<th>Proactiveness &amp; Firm performance</th>
<th>Owner/Manager</th>
<th>Non-Owner Manager</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Estimate (β)</td>
<td>% of total effect</td>
</tr>
<tr>
<td>Total Effect</td>
<td>0.510***</td>
<td></td>
</tr>
<tr>
<td>Direct Effect</td>
<td>0.279**</td>
<td></td>
</tr>
<tr>
<td>Total Indirect Effect</td>
<td>0.232***</td>
<td>45.49%</td>
</tr>
<tr>
<td>Specific Indirect Effects</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PRO→ POLNET→ BUSNET→ FP</td>
<td>0.058*</td>
<td>11.37%</td>
</tr>
<tr>
<td>PRO→ BUSNET→ FP</td>
<td>0.140**</td>
<td>27.45%</td>
</tr>
<tr>
<td>PRO→ POLNET→ FP</td>
<td>0.033</td>
<td>-</td>
</tr>
</tbody>
</table>

Note: PRO, POLNET, BUSNET, and FP represent Proactiveness, Political network ties, Business network ties, and Firm Performance respectively. *p<0.05, **p<0.01, ***p<0.001.

The mediation effects were tested by evaluating the indirect effect of proactiveness on firm performance via political and business network ties for owner/manager and non-owner manager. From the results presented in table 6.28, it can be found that the total indirect effects for owner/manager and non-owner manager are both significant and account for 45.49% and 15.93% of the total effect respectively. This confirms a partial mediation effect between proactiveness and firm performance for both owner/managers and non-owner managers.

After assessing the specific indirect effects of business network ties on the relationship between proactiveness and firm performance, only that of owner/manager group came out significant which accounted for 27.45%, while the effect of non-owner manager was not significant. This implies that business network ties partially mediate the relationship between proactiveness and firm performance for the owner/manager.
sample only. The indirect effect of political network connection was also tested. The results show that political network connection does not mediate the relationship between proactiveness and firm performance. This result applies for both groups (i.e., owner/managers and non-owner managers) as can be seen in table 6.28.

Although, a further evaluation of the results shows that when both business and political network ties are combined as two mediators in series, the indirect effects for both owner/manager and non-owner manager are significant and account for 11.37% and 8.25% of the total effects respectively.

Table 6.29 Results on direct and interaction effects

<table>
<thead>
<tr>
<th>Variables</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
<th>Model 5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Control variables</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Firm age</td>
<td>0.009</td>
<td>0.009</td>
<td>0.016</td>
<td>0.016</td>
<td>0.012</td>
</tr>
<tr>
<td>Firm size</td>
<td>-0.015</td>
<td>-0.008</td>
<td>-0.013</td>
<td>-0.013</td>
<td>-0.009</td>
</tr>
<tr>
<td>Industry</td>
<td>0.052*</td>
<td>-0.022</td>
<td>-0.064</td>
<td>-0.049</td>
<td>-0.051</td>
</tr>
<tr>
<td><strong>Direct effects</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Innovativeness</td>
<td></td>
<td>0.138*</td>
<td>0.570***</td>
<td>0.125</td>
<td>0.144</td>
</tr>
<tr>
<td>Risk-taking</td>
<td></td>
<td>0.053</td>
<td>0.007</td>
<td>0.353*</td>
<td>0.045</td>
</tr>
<tr>
<td>Proactiveness</td>
<td></td>
<td>0.428***</td>
<td>0.397***</td>
<td>0.415***</td>
<td>0.510**</td>
</tr>
<tr>
<td>Managerial experience</td>
<td></td>
<td>0.174***</td>
<td>0.159***</td>
<td>0.163***</td>
<td>0.170***</td>
</tr>
<tr>
<td><strong>Interaction effects</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Innovativeness x mgt experience</td>
<td></td>
<td>-0.156***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Risk-taking x mgt experience</td>
<td></td>
<td></td>
<td>-0.125</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proactiveness x mgt experience</td>
<td></td>
<td></td>
<td>-0.039</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R-squared</td>
<td>0.015</td>
<td>0.304</td>
<td>0.306</td>
<td>0.297</td>
<td>0.300</td>
</tr>
<tr>
<td>R-squared change</td>
<td>0.289***</td>
<td>0.002***</td>
<td></td>
<td>0.000***</td>
<td></td>
</tr>
</tbody>
</table>

*p< 0.05, **p< 0.01, p< 0.001

The proposed hypotheses were tested using regression models. Five models were evaluated to test the hypotheses. The first model only considered the control variables, the second model added the direct variables (innovativeness, proactiveness, risk-taking and managerial experience). Models 3-5 include the interaction effects between
managerial experience and the three dimensions of entrepreneurial orientation (innovativeness, proactiveness, risk-taking). Results are shown in table 5.15.

The first model with only control variables recorded an $R^2$ value of 0.015, in which the influence of industry type is found significant ($\beta = 0.052, p < 0.05$), while firm age and firm size are insignificant. The second model tested the direct effects of managerial experience, innovativeness, risk-taking and proactiveness, while the third, fourth and fifth model tested $H_7a$, $H_7b$ and $H_7c$ to ascertain the indirect influence of managerial experience on the relationship between the three dimensions of entrepreneurial orientation (innovativeness, risk-taking and proactiveness) and firm performance. The second model, which integrated the direct effect variables and the control variables, gives an $R^2$ value of 0.304 and a change in $R^2$ value of 0.289. In this model, only the direct effect of risk-taking on firm performance was insignificant. Other variables including Innovativeness ($\beta = 0.138, p < 0.05$), Proactiveness ($\beta = 0.428, p < 0.001$), and managerial experience ($\beta = 0.174, p < 0.001$) are significant.

Considering the interaction effects in model 3, 4 and 5, only model 3 which tested the moderating effect of managerial experience on the relationship between innovativeness and firm performance came out negative and significant, while that of risk-taking and proactiveness in model 4 and 5 were not significant. This implies that the results reject hypotheses $H_7a$, $H_7b$ and $H_7c$.

In summary, the results show that the first model explains 1.5% of the variation in firm performance. In model two, which incorporated the direct effects accounts for an additional 28.9% of the variation in firm performance ($p < 0.001$). Model three integrated the interaction effect of innovativeness and managerial experience, which explains 30.6% of the variation in firm performance. This gives a difference of 0.2% in
explaining the variation in firm performance compared to model two. However, there was no difference in the explanation of model four and five, when compared to model two, in terms of the percentage variation in explaining firm performance. This implies that when managerial experience interacts with the three dimensions of EO, innovativeness tends to have the highest predictive power in explaining firm performance, while risk-taking and proactiveness results were insignificant.

6.10 Summary of hypotheses testing results

H1a: There is a direct and positive influence of entrepreneurial orientation on firm performance.

From figure 6.2, the results supported H1a (i.e., entrepreneurial orientation has a positive and significant direct effect on firm performance ($\beta = 0.482, p < 0.001$).

H1b: Innovativeness has direct and positive influence on firm performance.

As shown in figure 6.3, a significant direct effect was found between innovativeness and firm performance ($\beta = 0.159, p < 0.05$), which affirms support for Hypothesis 1b.

H1c: Risk-taking has direct and negative influence on firm performance.

The study found that risk-taking does not significantly influence firm performance. Hence, the results did not support H1c.

H1d: Proactiveness has direct and positive influence on firm performance

The results in figure 6.5 show a significant positive direct effect ($\beta = 0.370, p < 0.001$). This finding supported H1d.

H2a: There is a direct and positive influence of entrepreneurial orientation on political network ties.
The results as shown in figure 6.2 reveal that EO has direct and positive influence on political network ties ($\beta = 0.516, p < 0.001$). This finding supports hypothesis 2a.

H2b: Innovativeness has direct and positive influence on political network ties.

The direct effect results of innovativeness on political network ties ($\beta = 0.296, p < 0.001$) is positively significant. Hence hypothesis 2b is supported.

H2c: Risk-taking has direct and positive influence on political network ties.

The direct effect results from the analysis show that the influence of risk-taking on political network ties ($\beta = 0.261, p < 0.001$) is significant and positive. This finding confirms support for hypothesis 2c.

H2d: Proactiveness has direct and positive influence on political network ties.

The analysis shows that the direct influence of proactiveness on political network ties ($\beta = 0.361, p < 0.001$) is positive and significant.

H3a: There is a direct and positive influence of entrepreneurial orientation on business network ties.

Results from figure 5.2 support hypothesis 3a because the findings show that EO has direct and positive influence on business network ties ($\beta = 0.365, p < 0.001$).

H3b: Innovativeness has direct and positive influence on business network ties.

The direct effect results of innovativeness on business network ties ($\beta = 0.323, p < 0.001$) are positive and significant. This finding support hypothesis 3b

H3c: Risk-taking has direct and positive influence on business network ties.

Results from figure 6.2 did not support hypothesis 3c. The results from the findings were insignificant.

H3d: Proactiveness has direct and positive influence on business network ties.
The results in figure 6.2 show that the direct influence of proactiveness on business network ties ($\beta = 0.192$, $p < 0.05$) is positive and significant. Hence, the study lends support for hypothesis 3d.

H4: Political network ties have a direct positive and significant influence on firm performance

Findings from figure 6.3, do not support hypothesis 4, because the direct effect results are not significant for this test.

H5: Business network ties have a direct positive and significant influence on firm performance

An investigation of the direct effects of political and business network ties on firm performance show that business network ties have a direct positive and significant influence on firm performance ($\beta = 0.435$, $p < 0.001$). This finding supports hypothesis H5.

H6a: Political and business network ties will mediate the relationship between entrepreneurial orientation and firm performance.

The mediation effect was tested by evaluating the indirect effect of EO on firm performance via political and business network ties. Only business networking mediates this relationship if considered separately. However, when both political and business were collectively evaluated in series, the results show that the total indirect effect is significant and account for 23% of the total effect. Hence, the results partly support hypothesis 6a.

H6b: Political and business network ties mediate the relationship between innovativeness and firm performance.

Indirect effect of innovativeness on firm performance via political and business network ties were evaluated. The results confirm a mediating effect of business
network ties on the relationship between innovativeness and firm performance, while that political networking was not significant. Although, after combining both political and business network ties in series, the results found that the total indirect effect is significant and account for 55% of the total effect. Hence, hypothesis 6b is partly supported.

H6c: Political and business network ties mediate the relationship between risk-taking and firm performance.

The mediation effect was tested by examining the indirect effect of risk-taking on firm performance through political and business network ties. Both business and political network ties do not mediate the relationship between risk-taking and firm performance. Therefore, this study rejects hypothesis 6c.

H6d: Political and business network ties mediate the relationship between proactiveness and firm performance.

The mediation effect was tested by evaluating the indirect effect of proactiveness on firm performance via political and business network ties. After examining business and political network ties separately, only business networking mediates the relationship between proactiveness and firm performance. However, the results found that the total indirect effect is positive and significant and represents 28.6% of the total effect if both business and political network ties are combined in series. Hence, the findings partly support hypothesis 6d.

H7. Managerial experience positively moderates the relationship between entrepreneurial orientation and firm performance. This hypothesis is divided into three sub-hypotheses:

H7a. Managerial experience positively moderates the relationship between innovativeness and firm performance.
The results from table 6.29 show that managerial experience negatively moderates the relationship between innovativeness and firm performance, hence rejecting hypothesis H7a.

H7b. Managerial experience positively moderates the relationship between risk-taking and firm performance.

The results on the moderating effect of managerial experience on the relationship between risk-taking and firm performance is not significant, therefore hypothesis H7b is not supported.

H7c. Managerial experience positively moderates the relationship between proactiveness and firm performance.

The findings regarding the influence of managerial experience on the relationship between proactiveness and firm performance is insignificant. This implies that Hypothesis H7c is not supported.
CHAPTER 7

DISCUSSION OF FINDINGS

7.0 Chapter overview

This chapter discusses the findings of this study. The findings are discussed in serial order, based on the hypotheses tested to ascertain the direct effects of EO and its independent components (i.e., innovativeness, risk-taking and proactiveness) on firm performance; direct effect of EO on network ties (i.e., political and business network ties); direct effects of political and business network ties on firm performance; the indirect effects of political and business network ties on the relationship between entrepreneurial orientation and firm performance and the moderating effect of managerial experience on the relationship between entrepreneurial orientation; and firm performance.

7.1 The effect of EO and its separate dimensions on firm performance (H1a-H1d).

Prior studies have suggested a direct positive effect relationship between EO and firm performance. However, overall findings have been mixed in the extant literature. Findings from the current study agree with the argument that entrepreneurial orientation has a significant positive direct effect on firm performance. The results support the positive effect proposed in Hypothesis H1. Several other studies found similar results as in this study, which support the positive performance effect of EO (Wiklund and Shepherd, 2005; Rauch et al., 2009; Anderson & Eshima, 2013; Boso et al., 2013; Tsai & Yang, 2013; Isichei et al., 2019; Basco et al., 2020). Recently, studies in both developed and developing countries have also confirm the positive effect of EO on firm performance. For example, Evelyn et al. (2017) confirmed a direct positive and significant effect of EO on firm performance after applying survey data
from China. Irwin et al. (2018) applied questionnaire survey to gather data sample from 100 US SMEs and found that EO has a direct positive and significant effect on firm performance. The findings of this study are also not different from previous studies carried out in Nigeria. For instance, Agwu (2018) used data from 107 SMEs in Nigeria to examine the performance effect of risk-taking and innovation. The results confirm the positive influence of risk-taking and innovation on firm performance. Olubiyi et al. (2019) also applied survey data from 460 owner-managers in Nigeria and confirms a direct positive effect of EO on profitability.

The findings of the present study support the notion that higher entrepreneurial orientation helps firms to identify and take advantage of opportunities that can help them outsmart competitors and enhance firm performance (Wiklund and Shepherd, 2005). However, this study contradicts that of Frank et al. (2010) who found a negative effect relationship between EO and firm performance. They explain that the performance effect of EO depends on the configuration and the specific context under investigation. Again, a recent study by Gupta et al. (2018) contradicts the results of this study. They investigated the relationship between EO and firm value across five countries (US, UK, Australia, Canada, and Germany) and found an insignificant effect of EO on firm value.

The current study further investigated the effects of the different dimensions of EO on firm performance as advised by scholars (Hughes & Morgan, 2007; Casillas & Moreno, 2010). The purpose was to be able to delineate any shared effects and ascertain the exact level of influence of each EO component on firm performance. This study shows that innovativeness significantly affects firm performance positively. This result agrees with Agyapong et al. (2018) who confirms the positive impact of innovativeness on firm performance in Ghana. These findings suggest that investing resources in new
product development or other innovative behaviour such as introducing new services and administrative processes might benefit firms, especially in developing countries like Nigeria and Ghana, which are characterized by high market turbulence and uncertainties. Tsai and Yang (2013) earlier pinpointed that innovativeness is beneficial to firms operating in countries where the market turbulent is high due to differentiation advantages gained from frequent changes in customer preferences.

This study also shows that the effect of proactiveness on firm performance is significantly positive. This result concurs with that of Andersén (2010) who earlier found a positive effect relationship between proactiveness and firm performance. These findings support the claim that proactiveness forms a fundamental aspect of firms’ strategic behaviours (Hughes and Morgan, 2007), which enables them to enjoy first-mover advantage to outsmart competing firms (Lechner and Gudmundsson, 2014). Proactiveness also improves a firm’s capability to initiate and build political and business networks to acquire information and resources (Eggers et al., 2013).

Contrary to the hypothesis that risk-taking is positively related to SMEs performance, the results of this study confirm an insignificant influence of risk-taking on firm performance in the Nigerian context, while controlling for firm age, firm size, and the industry in which the firm operates. The result supports that of Casillas & Moreno (2010). This finding agrees that the size and age of the firm, and the industry within which the firm operates could as well affect the performance effect of risk-taking as earlier suggested by Anderson and Eshima (2013). These findings further enriched our understanding on EO and its dimensions, particularly risk-taking in the context of SMEs in Nigeria. A possible explanation of this result is that majority of the firms in this study are small firms. Small businesses are generally constrained by lack of resources and therefore implementing high risk strategies may prove too costly for them. Hence,
this study insists that, while SMEs in Nigeria intend to exhibit high risks in anticipation of high returns, they should exercise some caution in considering firm size, firm age, and the industry which the firm operates, because high risk-taking could in some situations turn to be disastrous, especially for young and smaller firms with limited financial resources to cover for unexpected losses. Risk-taking therefore may be a strategy that SMEs may not require to pursue in the Nigerian context.

On the other hand, there are results from various studies, which do not totally agree with the findings of this study. For example, Chin et al. (2016) found that innovativeness negatively affects firm performance. Olubiyi et al. (2019) also found a positive effect relationship between risk-taking and profitability, while the result on the effect of innovativeness on profitability was not significant. The current study further investigated in detail on the performance effect of EO by carrying out a multigroup analysis to evaluate the results of sub-samples based on gender and ownership status of SMEs’ managers. The target is to strengthen the results and validate the findings across different groups. The multigroup findings do not differ from the earlier findings of the current study’s overall sample, and those of other previous studies. The results confirm that EO positively influence firm performance for both men- and women-managed firms. These findings are also the same for the case of owner-managed and non-owner managed firms.

7.2 The effect of EO and its separate dimensions on political and business network ties (H2a-H2d, H3a-H3d).

Though researchers have centred their attention in investigating the influence of entrepreneurial orientation on firm performance (Rauch et al., 2009), there is still limited theoretical and empirical research in addressing the process applied by firms
to translate their entrepreneurial orientation into gaining competitive advantages. Hence, the results of this study fill this gap by confirming that entrepreneurial orientation enhances firms' strategic behaviours such as political and business networks ties, which help to access resources such as knowledge exchanges with its external business environment.

This study found that EO has a direct positive and significant effect on political and business network ties. These results oppose that of Rank and Strenge (2018) who found that EO does not significantly influence network links to acquire brokerage positions. However, Rank and Strenge (2018) emphasize that investigating the individual EO components as drivers of network ties will help to clearly explain the effect relationship between EO and network ties. This study further investigated the different dimensions of EO and found that risk-taking and proactiveness positively affect political network ties. These findings are similar with that of Rank and Strenge (2018) who confirm the positive influence of risk-taking on political network ties. These results suggest that EO firms exhibiting proactive and risk-taking behaviours may likely engage in political network ties to gain access to first-hand information and possibly act proactively to reduce risk and uncertainties that could arise from unfavourable government policies (Anwar et al., 2018).

On the other hand, the findings of this project contradict the findings of Rank and Strenge (2018) who found a negative effect of innovativeness on network links to acquire brokerage positions. These results confirm a direct positive and significant effect of innovativeness on political and business network ties. The effect is stronger for business network ties compared to political network ties. This suggests that innovative business firms may create networks with key players in its business environment to acquire information that assist in setting up new products and
processes to meet customer needs and improve service delivery, which in turn influence business performance (Zheng et al., 2011). Strong networking with bigger companies makes it easier for SMEs to build legitimacy as a strategic resource to attract business partners, facilitate business transactions, obtaining economic benefits such as reduced transaction cost and easy access to trade credits from suppliers. Innovative companies could as well engage in political network ties to influence regulatory bodies in establishing favourable policies to enhance the smooth flow of product licensing, easy product distribution channels and sales promotion to enlarge market share (Sheng et al., 2011; Anwar et al., 2018).

7.3 The effect of political network ties on firm performance (H4)

This study found insignificant results on the relationship between political network ties and firm performance. These results agree with that of Agyapong et al. (2018) who confirms that the effect of social networks with political leaders and government officials on firm performance is insignificant. Other related studies outside Sub-Saharan Africa also supported the results of this study, by finding insignificant results on the relationship between political network ties and firm performance (Sheng et al. 2011; Sami et al. 2019). Sheng et al. (2011) who found an insignificant result in the direct relationship between political network ties and firm performance advise that firms must exercise caution in applying political network ties as firm strategy because it may not enhance performance or could even result to losses in certain market and institutional conditions. It was confirmed that some of China’s top business firms connected to political office holders were probed for criminal related cases regarding their founder’s involvement in political scandals such as taking undue advantage by using government influence to monopolise the markets and harness government resources to promote personal business gains (The Economist, 2009). The risk in employing
political network ties to enhance performance could be more pronounced in developing countries with high corruption and political instability. A good example can be deduced from “the Shanghai Social Security Fund fiasco in 2006, where seventy percent of one hundred and thirty-seven listed firms with government network ties suffered losses of −2.21% in the stock market after 5 days of scandal report associated with these companies” (Sheng et al. 2011, p11).

The findings of this study are understandable because Nigeria has been known for high corruption, corporate scandals and fraud cases related to politically linked firms (EFCC, 2020). There are several examples of fraud cases related to politically connected firms in Nigeria. On May 28, 2019, a high court in Lagos city, Nigeria convicted two companies linked to a former director-general of the Nigerian Maritime Administration and Safety Agency (NIMASA), Calistus Obi for alleged US $377,777 fraud case. The court ordered the forfeiture of the companies’ asset to the government of Nigeria. Also, the EFCC secured the court conviction of four companies (Gava corporation Ltd, Romrig Nigeria Ltd, PML Securities Company Ltd and PML Nigeria Ltd) linked to a former governor of Delta state, Nigeria for alleged US $54.3 million fraud case (EFCC, 2020). Again, the EFCC on May 4, 2020 arraigned two companies link to a former minister of special duties and intergovernmental affairs, Kabiru Tanimu Turaki who served between 2013-2015 term for alleged US $1.5million. The case is still on going in court (EFCC, 2020).

Another plausible explanation to these results is that the data gathering period of this study coincided with the 2019 political transition, which removed several political office holders, who may have been linked to some of the sampled firms. This could also affect the result on political network ties. Hence, the study would advise that further research could consider applying longitudinal data with a minimum of 15 years,
covering different political transitions. This agrees with a plausible explanation by Agyapong et al. (2018) who pinpointed that a political system with four-yearly democratic elections could bring about significant shift in political power and changes in leadership, which might breakup some political connections. This in most cases exposes firms to danger by losing governments contracts and other related government benefits. This might likely reduce the performance effect of political network ties.

Again, the high cost of establishing political connection could contribute to the insignificant performance effect of political network ties, especially considering the categories of firms (SMEs) employed in this study, which are characterized by low level of available financial resources. This argument is consistent with a study in Ghana by Acquaah (2011) who explains that political network ties involve some level of obligations to reciprocate favours in the form of financial and non-financial benefits to maintain human relations, which may likely increase the firm’s running expenses. These findings clearly suggest that there is a potential downside in cultivating political network connections in developing countries. Hence, companies are advised to limit as much as possible their political ties to maintain their reputation and safeguard operations from possible indictment by fraudulent politicians because some politically linked firms have been closed through court order due to fraud practices linked to government officials.

However, some empirical works contradict the findings of these studies. Adomako and Denso (2014), Acquaah, (2007), Li and Zhang (2007), Zheng et al., (2014), and Guo et al., (2014) have shown that political network ties in developing economies positively affects firm performance. These differences in results maybe attributed to the differences in research contexts and the time of the study.
7.4 The effect of business network ties on firm performance (H5)

The results of this research reveal that business networking positively affects the performance of SMEs in Nigeria. These findings agree that SMEs engage in business networks to acquire resources to gain competitive advantage for higher performance. Ogunjemilua et al. (2015) explains that the Nigerian government institutions could not provide adequate resources such as financial grants, loans, business support trainings, useful information to support SMEs due to corruption and lack of concern for SMEs (Ogunjemilua et al., 2015). In such markets, business networking helps firms to gain access to needed expertise support, knowledge and resources from private financial institutions and other business firms (Sheng et al., 2011; Li et al., 2008). Therefore, the results of this study support other studies (Acquaah and Eshun, 2010; Sheng et al., 2011; Shirodkar and Mohr, 2015; Sue et al., 2015) who confirm that business networks positively affect firm performance in the Chinese context. Another study by Anwar et al. (2018) who quantitatively analysed data from a sample of 319 new ventures in Pakistan found that business, political and financial network ties have direct positive and significant impact on business performance. A recent study by Sami et al. (2019) confirms the positive effect of business network ties on firm performance. Another research work by Lee (2019) who carried out multigroup analysis to examine the relationship between managerial network ties and firm performance of family and non-family firms in the Chinese context concludes that only business network ties have positive effect on firm performance. Sefiani et al. (2017) and Tretiakor et al. (2019) also examined survey data from owner-managed firms and found a direct positive and significant effect relationship between network ties and firm performance. These imply that companies must not undermine the importance of business network ties in enhancing firm performance. Business managers who have good and robust
relationship with industry associations enjoy easy access to financial resources to promote business growth (Anwar, et al., 2018). Firms use alternative credit channels when they find it difficult to gain access to external finance (Ferrando and Mulier, 2013, Anwar, et al., 2018).

Based on the findings, this study emphasizes that firms in the developing countries like Nigeria could gain competitive advantage through business network ties, which will in turn transform to higher performance. Previous empirical work confirms that firms with more access to financial resources enjoy better competitive positioning (Pergelova and Angulo-Ruiz, 2014). Some SMEs use informal networking to acquire mix of information that facilitates product development, which provide profitability benefits to firms (Tretiakor et al., 2019). Anwar et al. (2018) emphasizes that business network ties enable firms to access new ideas and explore opportunities in markets, which in turn allow business firms to make strategic positioning in turbulent markets and gain competitive advantage. Based on the outcome of the results, this study advises managers of SMEs in Nigeria to rely more on business networks to foster business performance and possibly reduce the level of political network ties.

7.5 The mediating effect of political and business network ties on the relationship between EO and firm performance (H6a-H6d)

This study found a positive mediating effect of business network ties on the relationship between EO and firm performance. This result suggests that firms in less developed market economies being characterised by ineffective legal enforcement of contracts and property rights, and weak regulatory structures (Sheng, et al., 2011; Adomako and Danso, 2014) rely on informal networks and structures for security by actively seeking to design alternative structures such as establishing business networks to secure contractual arrangements, legitimacy and possibly gain access to
necessary resources to enhance firm performance (Peng, 2001; Boso et al., 2013). The benefits of business collaborations are not uncommon among firms. Companies form long-term collaborative connections with their component supplier firms to reduce transaction costs, benefit from economies of sales and as well increased joint competitive advantage (Sheng, et al., 2011). Such collaboration also allows firms to collectively share business risks, mutually assess complementary resources, and improve productivity to enhance firm performance (Zheng et al., 2011; Anwar et al., 2018).

On the other hand, the study did not find support for the mediating effect of political network ties on the relationship between EO and firm performance. Although, a further multiple mediation analysis confirms that when political network ties are combined in series with business network ties, the mediating effect is positively significant. This implies that political networks on its own could not significantly mediate the EO-firm performance relationship and that a combination of both types of network ties can be the only solution to gain the benefits of political network ties. These findings give unique insight and useful knowledge on how different network ties can be combined to create optimum benefits in enhancing the positive effect of EO on firm performance in the Nigerian context. The kind of networking (i.e., business, or political) to consider depends on the orientation of the firm, the likely benefits expected, the peculiar circumstances, talents of the managers and the context (Anwar et al., 2018). Therefore, firms in Nigeria should put into consideration the risk of depending only on political network ties to enhance firm performance, because the findings of this study clearly explain that political networking on its own does not mediate the EO-performance relationship, except it is collectively applied together with business network ties.
7.6 Moderating influence of managerial experience on the relationship between EO and firm performance (H7a-H7c)

This research project enriches the literature regarding the moderating influence of managerial experience on the relationship between the EO dimensions (innovativeness, risk-taking and proactiveness) and firm performance in the Nigerian context. The current study found that managerial experience significantly influences the relationship between innovativeness and firm performance negatively. These results agree with previous studies, which confirm a negative relationship between CEOs’ prior managerial experience and firm performance (Elsaid et al., 2011; Zhang, 2008). These findings support the argument that to avoid harming the performance of the firm, managers with previous work experience need to unlearn some of the knowledge and skills acquired from the previous job to be able to adapt and work effectively in the current job setting (Watkins, et al., 2004). Managerial experience overtime consolidates “knowledge corridors” and decision-making templates, which makes it difficult for managers to unlearn prior experience that are obsolete and irrelevant to the current job setting (Elsaid et al., 2011). In otherwords, most managers with prior experience maybe reluctant to accept and adopt up-to-date methods, skills and useful knowledge deemed different from previous ones. Hamori and Koyuncu (2015) supported the above argument by emphasizing that managers could hardly adapt from one job setting to another because managerial task are contextual, unstandardized, and highly interdependent on the functional area. Their findings confirm that transferring previously acquired managerial knowledge and skills across business firms attract performance penalty, and that the negative effects could be more severe when moving directly from the previous management position to the new management job setting. Watkins (2012) caution managers opting for a new
management role in a different context not to fall into the big trap of believing that they will continue to succeed by exhibiting the same skills that made them successful in the previous job. He further emphasizes that one can surprisingly fail due to the adaptive challenges accompanying the new leadership role and the demands for new skills to cope with the changed context.

Further results confirm that the moderating influence of managerial experience on the relationship between two EO dimensions (i.e., risk-taking and proactiveness) and firm performance are not significant. These results support that of West and Noel (2009) who found that industry knowledge acquired through past managerial experience is not significantly related with firm performance. Previous research found that CEOs with previous managerial experience show no significant performance differences compared to those with no past experiences (Elsaid et al., 2011). One possible explanation for these findings is that past managerial experience may not significantly influence this relationship due to the dynamic and volatile nature of the Nigeria business environment. The argument here is that for this kind of business environment, the value of knowledge gained from past managerial experience erodes very quickly and possibly overtaken by new technological advancements, which changes business processes and activities to satisfy frequently changing customer demands (Newbert, 2005). The frequent introduction of new technologies, products and processes are even more pronounced for innovative oriented companies. Hence, firms with high EO should exercise caution in emphasizing on past managerial experience, while hiring managers because it might not add value to the firms operating in the Nigerian business environment. In some cases, it could negatively affect performance, especially for firms exhibiting high innovative behaviour as seen in the results of this study. Another possible explanation for these results is that
managers with past managerial experience may exhibit some form of overconfidence by underestimating the current risks and challenges confronting the business or develop a very myopic view of the SMEs' prospects.

7.7 Conclusion

This chapter has discussed the findings of this research. In conclusion, the results provided unique empirical evidence in the Nigerian context on the EO-performance relationship. The study supports majority of findings in establishing the direct positive effect of EO on firm performance. Again, it confirms the importance of intervening variables such as business network ties in enhancing the EO-performance relationship. On the other hand, the study confirms the negative moderating effect of managerial experience on the relationship between innovativeness and firm performance. The next Chapter presents the summary of key empirical findings and contributions to knowledge, the implications for policy and managerial decisions, the limitations of the study and recommendations for future research work.
CHAPTER 8

SUMMARY OF KEY FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS FOR FUTURE STUDIES

8.0 Chapter overview

The purpose of this conclusion chapter is to present the summary of key findings and contribution to knowledge of this study. It further provides insights into managerial and policy implications of the findings of the research and pinpointing some limitations related to the study. The chapter closes by highlighting the directions for future research.

8.1 EO and firm performance (Objective 1)

The current study expands the EO literature in evaluating the general assumption that EO positively relates to firm performance and provides empirical results for the argument. Earlier studies (e.g., Lumpkin and Dess, 1996; Covin and Slevin, 1991; Boso et al., 2013) have reported mixed results, leading to several disagreements and inconclusive arguments in the entrepreneurship literature. However, the results of this research, show that within the Nigerian context, EO has a positive and significant relationship with firm performance. The findings are consistent with majority of past findings on the positive performance effect of EO. These findings support the notion that SMEs exhibiting higher strategic entrepreneurial behaviours are more likely to enhance their performances (Wiklund and Shepherd, 2005; Rauch et al., 2009; Anderson & Eshima, 2013; Boso et al., 2013; Tsai & Yang 2013; Evelyn et al., 2017; Irwin et al., 2018; Agwu, 2018; Olubiyi et al., 2019).
This study adds to knowledge by responding to the call and suggestions for further research by recent studies (Rank and Strenge, 2018; Luu and Ngo, 2019; Basco et al., 2020) to investigate the independent EO dimensions to ascertain or capture the varying effects on firm performance in other contexts, especially in Nigeria, where research on the effect of EO dimensions on SMEs’ performance remained scarce. From the findings, the study confirms that the individual dimensions of EO (i.e., innovativeness, risk-taking and proactiveness) have different impact on firm performance. Specifically, this research found that the performance effect of innovativeness and proactiveness came out positively significant. However, after the introduction of control variables such as firm age, firm size, and the industry effect in the model, only the risk-taking dimension of EO was not significant. The findings support that the size and age of the firm, and the industry within which the firm operates could affect the performance effect of risk-taking as earlier suggested by Anderson and Eshima (2013). Hence, a firm should consider the nature of the business environment, while anticipating for high returns via risk-taking strategies because high risk-taking could in some situations turn to be disastrous especially for young and smaller firms with limited financial resources to cover for unexpected losses.

The multigroup analysis results of the sub-samples based on gender and ownership status of SMEs’ managers are not different from the earlier findings of the overall sample of this study and previous studies. The results confirm that EO positively influence firm performance for both men- and women-managed firms. These findings are the same in the case of owner-managed and non-owner managed firms.
8.2 The effect of EO and its separate dimensions on political and business network ties (Objective 2).

EO has a direct positive and significant effect on political and business network ties. A further investigation on the individual dimensions of EO shows similar findings with Rank and Strenge (2018) who found that the positive effect relationship between risk-taking and network ties. The findings of this study suggest that firms, which exhibit entrepreneurial behaviours may likely engage in political network ties to gain access to first-hand information and possibly act proactively to reduce risk and uncertainties that could arise from unfavourable government policies (Anwar et al., 2018). Based on the results, the positive effect relationship between innovativeness and business networking is stronger compared to that of political networking. This suggests that innovative business firms centre more on interfirm collaborations to proactively gain access to resources and information that assist in setting up new products and processes to meet customer needs and improve service delivery, which in turn influence business performance (Sheng et al., 201; Anwar et al. 2018). These findings advance knowledge on how the different dimensions of EO affect political and business network ties and give an insight on how firms apply a mix of entrepreneurial behaviours and network ties to maximise firm performance.

8.3 The effect of political and business network ties on firm performance (Objective 3).

This study found a nonsignificant result on the relationship between political network ties and firm performance. This result agrees with similar empirical works on political network ties in developing economies (Sheng et al. 2011; Sami et al., 2019). Based on these findings, SMEs in Nigeria are therefore advised to be cautious, while establishing political network ties as this might not add value to the firm.
On the other hand, the findings of this research reveal that business networking positively affects the performance of SMEs in Nigeria. This finding implies that in developing markets like Nigeria, firm performance can be improved through interfirm network ties and collaborations to gain expertise support, knowledge, and resources (Sheng et al., 2011; Li et al., 2008). Based on the outcome of the results, the present study emphasizes that SME managers in Nigeria should rely more on business networks to foster performance and possibly avoid applying political network ties. These findings advance understanding by examining in detail the way EO firms apply business network ties to gain access to resources and maximise the use of such assets to promote business performance.

8.4 The mediating effect of political and business network ties on the relationship between EO and firm performance (Objective 4)

The present research advances knowledge by responding to the call of Rank and Strenge (2018) on the need to investigate the mediating effect of network ties on the relationship between EO and firm performance. A contribution to knowledge emanates from the fact that, by testing the mediating mechanism of business network ties on EO-performance relationships, the present study enriched the understanding of how such contingent variable could positively help entrepreneurial firms in breaking down institutional barriers and benefit the most from the performance effect of EO in a developing market like Nigeria. This study confirms a positive mediating effect of business network ties on the relationship between EO and firm performance. However, the study shows that political networks could not mediate the effect relationship between EO and firm performance. These results suggest that firms in Nigeria will not gain from political ties due to the possibility of scandals, litigations, indictment by
corrupt politicians connected to the firm, and the potential risk of forfeiting company assets if convicted in fraud related cases.

8.5 Moderating influence of managerial experience on the relationship between EO and firm performance (Objective 5)

This study advances empirical knowledge in the Nigeria context by providing findings regarding the moderating influence of managerial experience on the relationship between the EO dimensions and firm performance. The current study reveals that the interaction effect of managerial experience on the relationship between innovativeness and firm performance is significantly negative, while that of risk-taking and proactiveness is not significant. The negative performance influence of managerial experience agrees with that of Elsaid et al. (2011) and Zhang (2008). These results could be attributed to the dynamic and highly unpredictable nature of the Nigerian market. In such kind of business environment, the value of knowledge gained from past managerial experience erodes very quickly and possibly overtaken by new technological advancements, which change business processes and activities to satisfy frequently changing customer demands (Newbert, 2005). In some cases, it could negatively affect performance especially for firms exhibiting high innovative behaviour as seen in the results of the current study. Therefore, based on the current findings firms in Nigeria could employ managers who are ready to learn and adapt to rapid changes in volatile markets rather than relying on managers with past knowledge experience that may not be useful to the current situation of things.
8.6 Theoretical contribution

This study contributes to knowledge on the important subject of EO by developing and testing a conceptual model to investigate firm level factors influencing performance of SMEs in the context of Nigeria, a Sub-Saharan African developing economy. To the best of the researcher’s knowledge, the conceptual model developed and examined in the present research is the first of its kind to be developed in the Nigerian research context, hence representing a unique contribution to knowledge. More so, most EO studies have been conducted in the United States of America, Europe, and Asia with less attention to Africa (Lee et al., 2009; Lerner and Almor, 2002), the present study makes a notable contribution to the debate that EO and business network ties positively influence firm performance in developing contexts such as Nigeria.

This research further widens the boundaries of current knowledge by trying to integrate two main literature streams (i.e., EO and networking), which have historically tended to evolve as independent concepts. The relationship between entrepreneurial orientation and network ties have been widely ignored in the literature. Therefore, this study offers a clearer understanding of this relationship and how the interactions between these variables influence SMEs performance. The finding that business network ties partially mediate the relationship between entrepreneurial orientation and firm performance pinpoints the importance of taking into consideration contingent factors, while investigating the EO-performance relationship for SMEs. It is noteworthy that the subject of SMEs performance has received increased interest in recent times from researchers owing to the major role that SMEs play in both developed and developing economies regarding employment creation, economic growth, innovation, wealth creation, and social cohesion (OECD, 2015; GEM, 2012).
Another unique contribution is that this research responds to the recent call by Wales (2016) who identified a paucity of theoretical grounding in most of the research work on EO. The lack of theoretical grounding and the statistical weaknesses in EO studies is even more prevalent in the Nigerian context. Based on the above, this research employs the RBV and the RDT perspectives to explain the underlying complex mechanisms and factors influencing the EO-performance relationship. The study supports the RBV, which suggests that firms operating in volatile and turbulent business environment like Nigeria should focus on and direct their rare resources for a competitive advantage to improve firm performance rather than trying to manipulate external factors and pressures beyond their control (Kamasak, 2013). However, the results of this study were partly contrary to one of the common assumptions of human resource perspective, which explains that previous workplace experience acquired by employees enrich their knowledge, skills, and capabilities to boost business performance. The findings of this study confirm that human capital such as previous managerial experience does not always lead to better performance. Rather, managerial experience could lead to establishing knowledge and decision-making patterns that make it difficult for managers to accept inconsistent information and decisions that are different from previous ones. This could negatively affect performance because past knowledge acquired through managerial experience may not be useful in a new organisational setting. For example, frequent changes and updates in IT packages will require new training to effectively use them to facilitate business processes.

Finally, the use of weak statistical techniques to analyse survey data is seen by researchers as a problem in research because it could present wrong results, especially from flawed dataset (Kline, 2015). The application of weak statistical
analysis (i.e., descriptive statistics and simple multiple linear regressions) is prevalent across EO related research, especially in Nigeria (Agwu, 2018; Olubiyyi et al., 2018). Hence, the present study strengthened the reliability and validity of findings by applying advance statistical techniques (i.e., SEM) to evaluate measurement constructs and structural models. Using SEM approach validated the data by carrying out confirmatory factor analysis to assess model fit indices, factor loadings, and the AVE of the measurement constructs before applying data to investigate relationships between constructs.

8.7 Managerial implications

Besides theoretical and empirical contributions, the findings of this research have important practical implications for SMEs, managers, financial institutions, and investors in the Nigerian context. First, the results of this study provide insights to the important role of EO as strategic tool in enhancing the performance of SMEs in Nigeria. Second, the strong positive effects of innovativeness and proactiveness as shown from the current results after examining the individual dimensions of EO clearly points out that pursuing overall EO is less beneficial compared to considering EO at the individual performance level. From the findings of this study, the insignificant results of the performance effect of risk-taking after controlling for industry effect, firm age and firm size show that not all EO dimensions are beneficial to the firm and that managers should apply the dimensions that best suit the firm putting into consideration, the firm age, firm size, industry effect and the specific context in which the firm operates. For example, going by our current findings, managers of SMEs in Nigeria should focus their resources to promote innovative projects and institute proactive strategies to achieve first mover advantage by monitoring market trends, getting first-hand business
information from policy makers, while anticipating competitive moves from competitors.

Third, the current study could help SMEs in Nigeria to have clear understanding of the different dimensions of network ties and how best to apply them to boost business activities, especially in acquiring resources to improve firm performance. Nigeria, known for her high diversities across regions in terms of culture, language, ethnicity, religious beliefs, and political groups posed a difficult terrain for the survival of SMEs due to barriers associated with these diversities. Hence, firms could consider applying networking strategies to break diversity barriers, while trying to acquire external resources for firm survival and growth.

Fourth, the results of the present study show that managerial experience negatively moderates the effect of innovativeness on firm performance. This finding implies that for developing markets with high volatility and uncertainties, resulting from frequent and unpredictable changes in the business environment (e.g., frequent changes in customer preferences, changes in technology and business processes) could reduce the relevance of past managerial experiences. Based on the findings, which support the negative performance influence of managerial experience, the present study advises that firms with high innovative behaviours should exercise caution in placing much emphasis on past managerial experience as a condition for recruiting managers. Rather, managers who are active, quick to adapt to changing environments and apt to collaborate with other firms to remain informed with the current business environment could be more beneficial for firms in Nigeria. Charan (2005) identified a common criticism against firm owners and hiring firms in charge of hiring contracts by explaining that they often fall prey to the usual suspect bias, while searching for competitive managers during employment selection process. The bias here is that they mostly
concentrate on obvious candidates, whose current position appear to match the position that the hiring firm intend to fill with no alternative option of trying to bring in inexperienced but vibrant, smart, intelligent, apt to adapt and ready to learn candidates. One of the former CEO, Archie Norman who worked for the well-known giant supermarket chain ASDA, explained during an interview that a brilliant and successful CEO in a particular firm might find it difficult to succeed when moved to a new and entirely different context, except that genius will be willing to listen, able to learn, understand and quickly adapt to the new culture because the behaviour that worked in the previous firm may not work at the current work setting (Hamori & Koyuncu, 2015).

Fifth, the findings show that EO firms being managed by people with interfirm connections tend to perform better compared to people with past managerial experience, especially in developing countries like Nigeria, where the markets are highly volatile and unpredictable. Therefore, this study could help the firms’ human resource team and external hiring firms to understand the need to sustain and improve business success by hiring managers with the required potentials in developing economies like Nigeria.

Finally, SMEs’ investors and partners who intend to collaborate with Nigerian SMEs could consider choosing firms with strong entrepreneurial orientation and the appropriate type of network ties to mitigate investment risk due to high business failure rate in Nigeria. In other words, the study may help fund providers to understand and put into consideration the effect of firm characteristics and human resources (e.g., EO, managerial experience and network ties) on business performance, while assessing the risk level associated to the funding of SMEs in this type of context.
8.8 Policy implications

The current study presents empirical evidence that could assist government institutions and policy makers in designing interventions targeted at promoting SMEs’ development in the Nigerian context.

The findings provide support for innovativeness as strong predictors of firm performance in Nigeria. In view of this, the government can encourage SMEs by carrying out training programmes to promote business innovations and provide funds for new product developments to expand business and explore new markets. The content of entrepreneurship training programmes should aim at addressing the specific innovative needs of Nigerian entrepreneurial firms such as the ability to develop new ways of organising financial resources, develop new product lines, improve existing products, and customer service quality.

The results of this research indicate that female managed firms are more innovative oriented compared to their male counterparts. The implication for policy makers is to make loans and government grants accessible to female managed firms to enhance innovativeness and performance. Initiatives could include collaborating with financial institutions to facilitate access to loan schemes targeted at female managed firms and ensuring more flexible and favourable terms of loan agreements (e.g., lower interest rate and flexible repayment time plan). Apart from facilitating access to loan credit, policy makers could also support SMEs to manage their finances more effectively by introducing mentorship schemes and training, which will enable firm managers to learn from other business experts.

Another implication for policy makers is to consider the establishment of database for SMEs and ensure that all registered SMEs upload their financial statements and other
relevant information for planning and monitoring improvements. This could also help in easily accessing longitudinal data for research work.

8.9 Limitations of the study

This study has undoubtedly made important theoretical and practical contributions; however, it has some limitations identifying gaps for further research. First, a larger data sample could give greater weight to the multigroup result outcomes. Nevertheless, due to the lack of data in developing countries for SMEs, this study can be considered a first attempt approach that needs to be validated in larger data samples and different contexts. Second, although, the findings of this study may have relevance and could be useful particularly in other developing contexts, the research work is based on data sample drawn from SMEs in a single country (Nigeria). Further studies could integrate multicountry data to enhance the results for wider application.

A third limitation is the use of self-reported data from single key informants. This data collection approach became necessary based on the category of firms (SMEs) and the nature of the required information, which could best be obtained from managers given the difficulty of accessing such data from the public domain for these kind of firms in a developing context like Nigeria. The approach has been applied by other recent studies published in notable journals, while measuring entrepreneurial orientation and network ties (Anderson and Eshima, 2013; Boso et al. 2013; Tsai and Yang, 2013; Isichei et al., 2019; Olubiyi et al., 2019; Luu and Ngo, 2020; Basco et al., 2020). The fact that data were collected using self-reported questionnaires could be a potential source of common method bias. To assess common method bias, the study used multiple performance measures, conducted confirmatory factor analyses, and carried out the Harman’s one-factor test. These procedures show that common
method bias is not a threat in the current study. Again, Chan (2008) states that CMV concerns may be exaggerated because the use of self-reported questionnaires are not inherently flawed, especially when complex interactions of variables produced significant effects. Siemsen et al. (2010) supported Evans (1985) who found that significant interaction effects cannot be created if CMV exists. Hence, the significant interaction effects confirmed in this study is a strong evidence suggesting that common method bias is not a threat to the findings of this research.

Fourth, this study used cross-sectional data, which may pose a limitation in fully explaining causal inferences on the EO-performance relationship, especially in the aspect of firm growth performance. Hence, future studies could consider the use of longitudinal data, which may be preferable. Alternatively, future research might test for robustness in findings by applying panel data collected from repeated survey for different time intervals, preferably on yearly basis.

Challenges relating to accessing potential respondents posed another limitation to this study. The researcher finds it difficult in identifying and contacting potential respondents due to lack of effective SMEs database in Nigeria. As a result, convenience sampling techniques were employed to gather the data sample. Specifically, a face-to-face approach was applied to improve the response rate, and to allow the researcher to clarify the options on the Likert scale to respondents who were not familiar with them. This problem is not uncommon in research conducted in developing contexts; hence scholars recommend that sampling techniques and survey administration pattern should be tailored to suit the specific context under study (Kriauciuunas et al., 2011).
Finally, the use of questionnaire data for measuring firm performance may be criticised for being more subjective compared to data gotten from published financial statements. While the use of both questionnaire data and financial statements data to measure firm performance is recommended (Haber and Reichel, 2007), obtaining published financial statement performance data remains a major challenge in SMEs research as confirmed by similar research studies in recent times (Abor and Biekpe, 2009; Boso et al. 2013; Anderson and Eshima, 2013; Chin et al., 2016; Rank and Strenge, 2018; Isichei et al., 2019; Olubiyyi et al., 2019; Luu and Ngo, 2019; Basco et al., 2020). This is attributed to the unwillingness on the part of SMEs’ managers to share firm performance information coupled with the lack of legally backed requirement to publish small business financial information particularly in Nigeria (Olubiyyi et al., 2019). To avoid the difficulty in accessing SMEs’ performance data, this study followed other researchers in employing survey performance measures in evaluating firm performance (Abor and Biekpe, 2009; Boso et al. 2013; Anderson and Eshima, 2013; Chin et al., 2016; Rank and Strenge, 2018; Isichei et al., 2019; Olubiyyi et al., 2019; Luu and Ngo, 2019).

8.10 Directions for future research

The conceptual model developed in the current study was tested using data from the Nigerian context, hence, further research is required to replicate the study in other developing countries, especially those with similar characteristics as Nigeria. This is to confirm and validate the findings across developing markets. Again, scholars could engage future study to expand the literature by examining other mediating and moderating variables comprising environmental and institutional factors on the EO-performance relationship within the Nigerian setting. Also, the current study suggests that other studies could further investigate on the relationship between the dimensions
of network ties and firm performance by testing moderating and mediating mechanisms, especially for the case of political network ties, whose relationship with firm performance was found insignificant in this study. Evaluating the strength and density of network ties among Nigerian SMEs is another gap to be considered in future studies.

Furthermore, future research could replicate this study by looking at a specific industry or sector such as the educational sector. This will help in eliminating issues of industry shared effect, which scholars argue could negatively affect the results. Other studies could as well encourage larger sample size and add more diverse variables to enhance deeper understanding of relevant issues.

Future research could adopt a longitudinal approach to evaluate the long-term effects of EO, and network ties on firm performance respectively. This would further provide insights into the way these relationships change over time. As emphasized by Zahra and Covin (1995), EO strategies could have long-term implications and that firm performance growth could better be captured with longitudinal data. Another important direction relates to performance measurement. While there is no generally agreed standard on how firm performance should be measured in SMEs research, some scholars suggest that the firm performance construct could be considered from a multi-dimensional perspective whose measurement requires the inclusion of various independent factors or variables (Simpson et al., 2012; Robb and Watson, 2012). Future studies could separate the various components of firm performance (i.e., profitability, firm growth, service quality and customer satisfaction) to ascertain the effect of EO on each component. Finally, other research could apply both objective and subjective data for comparison and to examine the extent which the difference could affect the result interpretations of further related studies.
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10.0 APPENDICES

Appendix 1: Survey instrument (i.e., Questionnaire)

Consent Form for Survey Research

Title of Research:
Entrepreneurial orientation and performance of SMEs in Nigeria. The roles of managerial experience and network ties

Name of Researcher:
Nera Ebenezer Mansi
Doctoral Researcher on entrepreneurial orientation and its impact on firm performance I Accounting, Finance & Economics. Manchester Metropolitan University I Faculty of Business & Law I All Saints Campus I Oxford Rd. Manchester I M15 6BH I email: nera.e.mansi2@stu.mmu.ac.uk

Purpose of Research:
The purpose of this research is to ascertain the direct and indirect impact of entrepreneurial orientation on SMEs performance, through the mediating role of firm network ties and the moderating role managerial experience in Nigeria.

With your participation, I hope to understand how your firm ranks entrepreneurial orientation and firm network ties. Furthermore, your participation will help me to ascertain your company’s debt-level, profitability and other performance indicators.

What is required in participation?
I shall need your participation in the questionnaire survey. If you are willing, I would like to request you to fill the enclosed questionnaire to accomplish our goal of data collection.

Your participation in this survey is voluntary and you can refuse to give answer of any question or even to withdraw your involvement at any point from this research project.

I would appreciate your point of view regarding the application of entrepreneurial orientation and financial leverage in enhancing performance in your firm.

Data protection:
I assure you that all responses to this survey will be kept STRICTLY CONFIDENTIAL and used for academic research purpose only.
Consent: (If you want to participate, please tick on the appropriate boxes below)

I have read all the above information

I am willing to participate in this research study

Participant’s Signature_________________ Date: ____________________
Questionnaire Survey

Section 1: Demographic information

The purpose of this section is to obtain general information about your company and yourself as an anonymous participant in this study. Please indicate your answer by ticking or filling the spaces below.

Company Name

-------------------------------------------------------------------------------------------------------------------------------

Gender  ○ Male  ○ Female

Age group  ○ 18 - 29  ○ 30 - 39  ○ 40 - 49  ○ 50 and above

Educational level

○ Primary education (FSLC)
○ Secondary education (SSCE, GCE, WASCE)
○ Polytechnic/College (OND, NCE)
○ College/University degree (HND, BSc, BA)
○ University post graduate degree (PGD, Masters, PhD)
○ Other (s), please specify..........................

Ownership Status  ○ Owner/Manager  ○ Non-owner Manager
○ Other (s), please specify..........................

How many years of managerial experience do you have working in this industry?

○ Less than 1 year  ○ 1 -2 years  ○ 3 - 5 years  ○ 6 – 10 years
○ More than 10 years
Ethnicity: Please, kindly specify your tribe of origin
○ Hausa ○ Yoruba ○ Ibo
○ Other (s), please specify..........................

Business location (six geopolitical zones in Nigeria)
○ South-East ○ South-South ○ South-West ○ North-East
○ North-West ○ North-Central

Religion ○ Christianity ○ Muslim
○ Other (s), please specify..........................

Marital status ○ Single ○ Married ○ Divorced ○ Widow/Widower
Section 2: Entrepreneurial Orientation

The statements below target to measure the entrepreneurial orientation of the firm. They are categorized into three sub-sections: innovativeness, risk-taking, and proactiveness. Please kindly tick (v) to indicate for each statement the extent to which it describes your firm.

1-Strongly Disagree, 2- Disagree, 3- Slightly Disagree, 4- Neutral, 5- Slightly Agree, 6- Agree, 7- Strongly Agree.

<table>
<thead>
<tr>
<th>A.</th>
<th>Innovativeness</th>
</tr>
</thead>
<tbody>
<tr>
<td>EOIN1</td>
<td>Our firm is the first to introduce new products/services compared with competitors</td>
</tr>
<tr>
<td>EOIN2</td>
<td>Our firm is good at developing new processes compared with competitors</td>
</tr>
<tr>
<td>EOIN3</td>
<td>Our firm easily recognizes and develop new markets compared with competitors</td>
</tr>
<tr>
<td>EOIN4</td>
<td>Our firm is a leader in technology compared with competitors</td>
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</tbody>
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<table>
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<tr>
<th>B.</th>
<th>Risk-taking</th>
</tr>
</thead>
<tbody>
<tr>
<td>EOR1</td>
<td>Our firm exploits risky market opportunities</td>
</tr>
<tr>
<td>EOR2</td>
<td>Our firm invest heavily on high-risk/high-return projects</td>
</tr>
<tr>
<td>EOR3</td>
<td>Our firm takes bold actions to achieve our goals</td>
</tr>
<tr>
<td>EOR4</td>
<td>Our firm always experiment new products and services with high probability of failure</td>
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</table>

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<th>C.</th>
<th>Proactiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td>EOP1</td>
<td>We are first to identify customer needs</td>
</tr>
<tr>
<td>EOP2</td>
<td>Our firm initiates actions to which competitors respond</td>
</tr>
<tr>
<td>EOP3</td>
<td>Our firm proactively pursue market opportunities</td>
</tr>
</tbody>
</table>
Our firm pre-empting competitive actions

**Section 3: Firm network ties**
The statements below describe the firm network ties of the firm. They are categorized into three sub-sections: business network ties and political network ties.

**Business Network ties**
Please kindly tick (✓) to select the choice that suits your opinion.

1-Strongly Disagree, 2- Disagree, 3- Slightly Disagree, 4- Neutral, 5- Slightly Agree, 6- Agree, 7- Strongly Agree

<table>
<thead>
<tr>
<th>A.</th>
<th>Business network ties</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSNET1</td>
<td>Our firm has built good connections with suppliers</td>
<td></td>
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<td></td>
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<tr>
<td>BUSNET2</td>
<td>Our firm has built good connections with customers</td>
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<tr>
<td>BUSNET3</td>
<td>Our firm has built good connections with competitors</td>
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</tr>
<tr>
<td>BUSNET4</td>
<td>Our firm has built good connections with technological collaborators</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>BUSNET5</td>
<td>Our firm has built good connections with marketing-based collaborators</td>
<td></td>
<td></td>
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<tr>
<td>BUSNET6</td>
<td>Top managers at our firm spent good time and effort in cultivating connections with financial institutions</td>
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<tr>
<td>BUSNET7</td>
<td>Our firm devoted substantial resources to establish and maintain good relationships with financial institutions</td>
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<td></td>
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</table>
### Political network ties

Please kindly tick (✓) to select the choice that suits your opinion.

1: Strongly Disagree, 2: Disagree, 3: Slightly Disagree, 4: Neutral, 5: Slightly Agree, 6: Agree, 7: Strongly Agree

<table>
<thead>
<tr>
<th>B.</th>
<th>Political network ties</th>
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<th>4</th>
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<tbody>
<tr>
<td>POLNET1</td>
<td>Top managers at our firm have maintained good relationships with federal level government officials.</td>
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<td></td>
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<tr>
<td>POLNET2</td>
<td>Our firm has developed good connections with officials in regulatory and supporting organizations such as tax bureaus and commercial administration bureaus.</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>POLNET3</td>
<td>Top managers at our firm have good relationship with state and local level government officials.</td>
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<td></td>
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<td></td>
<td></td>
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<tr>
<td>POLNET4</td>
<td>Our firm has spent substantial resources from the company in building good relationships with government officials.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td></td>
<td>We support relatives, friends, and peers to maintain good relationships</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>We have good relationships with host community leaders such as community chiefs and youth leaders who are in politics</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td></td>
<td>We support political organizations</td>
<td></td>
<td></td>
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</table>
Section 4: Institutional/Environmental influences.

The following section targets to measure environmental munificence. Please kindly tick (v) to select the choice that suits your opinion. Please, remember that there is no right or wrong answer.

1-Strongly Disagree, 2- Disagree, 3- Slightly Disagree, 4- Neutral, 5- Slightly Agree, 6- Agree, 7- Strongly Agree

<table>
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<tr>
<th></th>
<th>Environmental Munificence</th>
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<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>EM1</td>
<td>We are in the market almost without external threat to the survival and development of firms</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>EM2</td>
<td>We are in the market with enough capital supply</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>EM3</td>
<td>We are in the market with numerous profit opportunities</td>
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<td></td>
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<tr>
<td>EM4</td>
<td>We are in the market, which can easily gain access to the needed resources for operations and expansion.</td>
<td></td>
<td></td>
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</table>

Section 5: Firm performance

Below are statements to measure firm performance. Please tick the box under the number that best represents the extent to which each of the statements suits your opinion. Please, remember that there are no right or wrong answers and the information you provide will be kept confidential.

1-Very Low, 2-Low, 3-Moderately Low, 4-Average, 5-Moderately High, 6-High, 7-Very High

<table>
<thead>
<tr>
<th></th>
<th>Financial firm performance</th>
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<th>2</th>
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<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>FP1</td>
<td>Firm’s average sales growth for the last three years compared with competitors</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FP2</td>
<td>Firm’s overall average profitability for the last three years compared with competitors</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>FP3</td>
<td>Firm’s average return on investment for the last three years compared with competitors</td>
<td></td>
<td></td>
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<tr>
<td>FP4</td>
<td>Average market share growth for the last three years compared with competitors</td>
<td></td>
<td></td>
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</tbody>
</table>
B. **Non-financial firm performance**

<table>
<thead>
<tr>
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<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>FP5</td>
<td>Average employment growth for the last three years compared with competitors</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FP6</td>
<td>Average level of customer loyalty and patronage for the past three years compared with competitors</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FP7</td>
<td>Quality reputation and award achievement for the past three years compared with competitors</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Section 6: Capital structure Decisions**

Please refer to your balance sheet and estimate the average proportion of your business’s use of the following sources over the last three years in percentage terms. *(Please, ensure that all the sources add up to 100%)*

<table>
<thead>
<tr>
<th>Source</th>
<th>% of total assets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long-term and Short-term debts</td>
<td></td>
</tr>
<tr>
<td>Retained Earnings</td>
<td></td>
</tr>
<tr>
<td>External Equity</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100%</td>
</tr>
</tbody>
</table>

**Section 7: Information about the firm**

1. **Firm age:**

Please tick the age range of the firm beginning from the year of business incorporation/start to date:

- [ ] 5 years or less
- [ ] Between 6 and 10 years
- [ ] Between 11 and 15 years
- [ ] Between 16 and 25 years
- [ ] Between 26 and 50 years
- [ ] More than 50 years
2. **Firm size:** Please, tick below the total number of employees.

- [ ] Less than 10 employees
- [ ] Between 10 and 25 employees
- [ ] Between 26 and 49 employees
- [ ] Between 50 and 100 employees
- [ ] Between 101 and 250 employees
- [ ] More than 250 employees

3. **Industry:** Please, kindly specify the firm’s industry by ticking one of the options.

- [ ] Agriculture
- [ ] Mining & Quarry
- [ ] Manufacturing
- [ ] Building & Construction
- [ ] Wholesale & Retail
- [ ] Hotel & Restaurants
- [ ] Transport & Communication
- [ ] Financial intermediation
- [ ] Real Estate
- [ ] Education
- [ ] Health & Social Work
- [ ] Other, please specify

**Information competency**

1. The questionnaire deals with issues I am very knowledgeable about

   [ ] Yes  [ ] No

2. My answers to the questions in the questionnaire are very accurate

   [ ] Yes  [ ] No

3. I am completely confident about my answers to the questions

   [ ] Yes  [ ] No
Appreciation

I thank you for your valuable time, response, and participation in this research. Your valuable contribution to this study will open new horizons for the development of SMEs in Nigeria.

For further queries, please do not hesitate to contact the researcher or the director of studies.

Kind regards,

Nera Ebenezer Mansi

Contacts:
Mr. Nera Ebenezer Mansi (email: nera.e.mansi2@stu.mmu.ac.uk)
+ 44 7448810822 (Researcher)

Doctor Tidings Ndhlovu (tidings.ndhlovu@mmu.ac.uk) (Director of Studies)
Manchester Metropolitan University| Faculty of Business & Law | All Saints Campus | Oxford Rd. Manchester | M15 6BH
Appendix 2 - Descriptive statistics showing Minimum values, Maximum values, Mean, Standard Deviation, Skewness and Kurtosis

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Skewness</th>
<th>Kurtosis</th>
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<tr>
<td>EOIN1</td>
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<td>EOIN2</td>
<td>310</td>
<td>1</td>
<td>7</td>
<td>4.82</td>
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<td>-0.761</td>
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<td>EOIN3</td>
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<td>7</td>
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<td>1.580</td>
<td>-0.711</td>
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<td>7</td>
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<td>0.595</td>
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<td>-1.394</td>
<td>1.530</td>
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<td>1.592</td>
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## Appendix 3 - The Variance Inflation Factors (VIF) of all variables

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<th>Variable</th>
<th>R-SQUARE</th>
<th>VIF</th>
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<td>0.574</td>
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<td>EOIN 2</td>
<td>0.658</td>
<td>2.92</td>
</tr>
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<td>EOIN 3</td>
<td>0.583</td>
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<td>EOIN 4</td>
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<td>2.63</td>
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<td>0.599</td>
<td>2.49</td>
</tr>
<tr>
<td>EOR 2</td>
<td>0.62</td>
<td>2.63</td>
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<td>EOR 4</td>
<td>0.504</td>
<td>2.02</td>
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<td>BUSNET 2</td>
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<td>BUSNET 4</td>
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<td>BUSNET 5</td>
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<td>0.539</td>
<td>2.17</td>
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</table>
## Appendix 4-Total variance explained

<table>
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<tr>
<th>Items</th>
<th>Initial Eigenvalues</th>
<th>Extraction Sums of Squared Loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>% of Variance</td>
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<tr>
<td>EOIN 1</td>
<td>7.678</td>
<td>31.993</td>
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<tr>
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<td>2.611</td>
<td>10.879</td>
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<td>EOIN 3</td>
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<td>EOIN 4</td>
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<td>EOR 1</td>
<td>1.566</td>
<td>6.524</td>
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