Entrepreneurship Orientation and Firm Performance: The Mediating Effect of Dynamic Capabilities and Government Support to SME Businesses in Ghana

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ABSTRACT

The concept of Entrepreneurial Orientation (EO) has evolved through distinct periods, shaping scholarly discourse and managerial practices. It entails a firm's strategic stance involving risk-taking, innovation, and proactivity, with varying impacts on firm performance. Despite extensive research, the relationship between EO and performance remains inconclusive. EO discussions have expanded globally, notably in SMEs and across different economies, including Ghana, where its relevance for economic development is emphasized. Understanding the evolution of EO constructs and its application in Ghanaian context reveals gaps in research regarding the relationship of Entrepreneurship Orientation, firm performance, Dynamic Capabilities, and Government Support in SMEs, urging further investigation. This study aims to examine the relationship between entrepreneurship orientation and firm performance (EO) in Ghana, focusing on SMEs businesses. It seeks to understand how dynamic capabilities are understood and adopted in the changing business environment, and the moderation role of government support. The research intends to identify key components of EO influencing firm performance, investigate the role of dynamic capabilities as mediators between EO and performance, and examine how government support moderates this relationship. Additionally, it aims to contribute to theoretical knowledge by clarifying EO in the Ghanaian context and provide practical insights for SMEs and policymakers. Through empirical examination, the study aims to shed light on the complex relationship between EO, dynamic capabilities, government support, and firm performance. The study employed a quantitative method of data collection and data analysis using Structural Equation Modeling (STEM) with the population of 350 SME business operators, who were into the SME businesses located in the central business district of Ghana. The Structural Equation Modeling (SEM) used for data analysis considered model validation, collinearity checks, and reliability assessments. Mediation analysis utilized a multiple mediator model to explore indirect effects through sensing and learning capabilities, while moderation analysis focused on government support. The findings of the research explained key aspects of entrepreneurship orientation (EO), dynamic capabilities (DC), and government support (GS) in the context of SMEs in Ghana. Firstly, regarding the effect of EO on firm performance, the study reveals that not all elements of EO significantly impact SME performance. While competitive aggressiveness and risk-

taking show significant effects, autonomy, innovativeness, and proactiveness do not. This nuanced understanding challenges previous assumptions and underscores the complexity of the relationship between EO and firm performance, particularly within the Ghanaian SME landscape. Secondly, the research demonstrates the significant mediating role of dynamic capabilities, specifically sensing and learning capabilities, between EO and firm performance. Sensing capabilities enhance market knowledge and innovation, translating creative efforts into profitable products and services. Learning capabilities foster employee creativity and knowledge, supporting the implementation of innovative solutions, thereby improving firm performance. Thirdly, the study determines the moderating role of government support between sensing and learning capabilities and firm performance. It finds a positive and significant moderating effect, indicating that government support amplifies the effects of organizational capabilities on firm performance. Particularly, government support becomes crucial, especially at lower levels of sensing and learning capabilities, suggesting that it provides the necessary resources or environment for SMEs to leverage their capabilities effectively towards better performance. Overall, these findings contribute to a deeper understanding of the intricate relationships among EO, Dynamic Capabilities, Government Support, and Firm Performance in the Ghanaian SME context.

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LIST OF ABBREVIATIONS

AGFI	Adjusted Goodness of Fit Index
AGI	Association Of Ghanaian Industries
AGOA	Africa Growth and Opportunities Act
AMOS	Analysis Of Moment Structure
AT	Autonomy
AUTO	Autonomy
AVE	Average Variance Extracted
BC	Biased Corrected
CA	Competitive Aggressiveness
CBD	Central Business District
CEO	Chief Executive Officer
CEPS	Customs, Excise, And Preventive Service
CFA	Confirmatory Factor Analysis
CFI	Comparative Fit Index
CI	Confidence Interval
CMIN	Chi-Square Value
CR	Critical Ratio
DC	Dynamic Capabilities
EC	European Commission
EMPRETEC	Federation of Association of Ghanaian Exporters, Private Enterprise Foundation
EO	Entrepreneurial Orientation
EPA	Environmental Protection Agency
EU	European Union
FP	Firm Performance
GCAA	Ghana Civil Aviation Authority
GDP	Gross Domestic Product
GEA	Ghana Enterprises Agency
GFI	Goodness Of Fit Index
GFZB	Ghana Free Zones Board
GIPC	Ghana Investment Promotion Council
GIS	Ghana Immigration Service
GPHA	Ghana Ports and Harbours Authority
GS	Government Support
IFI	Incremental Fit Index
IN	Innovativeness
KDI	Korean Development Institute
LB	Lower Bound
NAICS	North American Industry Classification System Codes
NBSSI	National Board for Small Scale Industries
PMU	Product-Market Unit
PNDC	Provisional National Defence Council

PR	Proactivity
PSI	President's Special Initiatives"
RBV	Resource-Based View
RDT	Resource Dependency Theory
RMSEA	Root Mean Square Error of Approximation
ROA	Return On Assets
ROE	Return On Equity
RT	Risk Taking
S.E.	Standard Error
SBA	Small Business Administration
SBS	Structural Business Statistics
SC	Sensing Capabilities
SEM	Structural Equation Modeling
SME	Small And Medium Enterprise
SPSS	Statistical Package for Solutions and Services
SRMR	Standardized Root Mean Residual
STEM	Structural Equation Modeling
UB	Upper Bound

CHAPTER ONE
INTRODUCTION

1.0 Background of the Study

The concept of entrepreneurial orientation (EO) has garnered substantial attention since its inception by Denny Miller, Dennis Slevin, and Jeff Covin (Corbett et al., 2021; Balakrishnan & R., 2025). Scholarly discussions have advanced our understanding of entrepreneurship orientation and its connection to strategic management. In today's uncertain world, where small and medium-sized enterprises (SMEs) and their managers seek solutions for workplace challenges, the relevance of EO conversations has grown significantly. EO is characterized by a firm's strategic posture that involves continuous engagement in risk-taking, innovative, competitive aggressiveness, autonomy, and proactive behaviours, ultimately influencing firm performance (Zaato et al., 2020; Cui et al., 2018; Rezaei & Ortt, 2018). Over the past decades, EO has been extensively investigated in relation to its impact on firm performance (Saeed, Yousafzai, & Engelen, 2014). However, despite numerous studies, the results have been conflicting and inconclusive, leaving the relationship between EO and performance still unclear (Su, Xie, and Wang, 2015). Some studies suggest a favourable correlation between EO and Firm Performance (Wiklund & Shepherd, 2003), while others indicate unfavourable or insignificant effects (Renko, Carsful, & Brännback, 2009; Hafeez et al., 2011), leading to differing opinions among researchers.

The discussion on EO has permeated both the private sector, especially SME organizations, and the public sector, as well as in developed economies (Weerakoon et al., 2020; Cui et al., 2018; Li et al., 2009) and developing countries (Adim & Poi, 2021; Zaato et al., 2020). Ghana’s context in EO has gained relevance across various sectors due to the country's growing population, projected to reach 37.9 million by 2025, and the potential for economic development (Moors, 2022; Acheampong, 2017). The increasing number of research studies on the entrepreneurship orientation in developing economies and academic discussions had called to consider this concept again at the policy level, which could be beneficial to foster economic growth and development.

Furthermore, Entrepreneurial Orientation (EO) has seen significant changes in discourse, emerging as a major construct in management and entrepreneurship literature. Four distinct periods were notified and exhibited in the research activities of scholars over the construct. These were: (1) The *EO Construct Pre-emergence Era* which spanned from 1973–1982. During this period, academics started to discuss firms instead of individuals, which could behave in an entrepreneurial way. (2) The second period was the *EO Construct Introduction and Legitimization Era* which spanned from 1983–1995. This was the introduction of EO as a unidimensional construct consisting of three overlapping dimensions- risk-taking, innovativeness, and proactiveness - in an article published by Danny Miller, which marked the beginning of this age. (3) The third period was the *EO Construct Critical Examination and Debate Era* running from 1996 to 2010. In a paper published in this era, Tom Lumpkin and Greg Dess noted that, two other characteristics of EO might be taken into consideration: these were competitive aggressiveness and autonomy and (4) The *EO Construct Expansion and Specialization Era,* which runs from 2011 to 2022. Jeff Covin and Tom Lumpkin's paper, which identified different proposed conceptualizations of EO and explored future research investigation of the EO Multidimensional construct, marked the start of this era. (Kreiser et al., 2023) In the case of Ghana, Entrepreneurship Orientation has undergone three distinct phases: post-colonial Ghana from 1957 to 1966, characterized by large-scale nationalization and state-owned enterprises; the period from 1967 to 1979, marked by totalitarianism and asset confiscation that discouraged private investment; and the renaissance of entrepreneurship from 1980 to 2010, during which various entrepreneurship models flourished (Amankwah-Amoah & Lu, 2019).

While there are growing body of research on entrepreneurship orientation with firm performance both theoretically (Covin & Lumpkin, 2011; Lumpkin and Dess, 1996) and empirically (Wiklund and Shepherd, 2005; Lee et al., 2019; Lumpkin and Dess, 2001), there are still gaps in understanding how the various models of entrepreneurship orientation play out in Ghana; and the mediating variable such as dynamic capabilities (sensing and learning capabilities) and the moderating variables of government support are understood given little attention in the context SMEs in Ghana.

1.1 Statement of the Problem

The central problem in this study is that literature has paid considerable attention to the relationship between Entrepreneurial Orientation (EO) and Firm Performance (FP) (Susanto et al., 2021; Ngo, 2023; Erista et al., 2020). EO, characterized by innovation, risk-taking, proactivity, autonomy, and competitive aggressiveness, has been identified as crucial for firm performance (Milovanovic, 2022; Engelen et al., 2015; Shafique & Saeed, 2020; Lumpkin & Dess, 2001). As a basis of the study, the researcher identified the problem to be in twofold.

First, most empirical studies assess between three and five EO dimensions, but only Oduro, (2022), explicitly covers all five (innovativeness, proactiveness, risk-taking, autonomy, and competitive aggressiveness)—testing only their effect on innovation performance in Ghanaian social enterprises, not standard SMEs or both financial and non-financial outcomes. Empirical studies by Zahra and Covin (1995) and Wiklund (1999) show that EO's positive effects on FP strengthen over time (Akbar et al., 2020; Li et al., 2009). Previous research has focused on EO's overall impact on FP. Studies have explored EO–performance links in Ghanaian SMEs, typically measuring innovativeness, risk-taking, and sometimes autonomy/competitive aggressiveness, but rarely all five dimensions. Financial and non-financial outcomes are sometimes both considered, but often only financial performance is measured (Deku et al., 2021; Nakku et al., 2020; Sarsah et al., 2020).

Second, no empirical study operationalizes the dynamic capabilities triad (sensing, seizing, transforming) as a mediator between EO and performance in Ghanaian SMEs (Sarsah et al., 2020). Some studies use absorptive capacity or innovation capability as mediators, but this falls short of capturing dynamic capabilities as defined in this research work. Evidence for dynamic capabilities' mediating role and government support's moderating effects is virtually absent. No study has combined all five EO dimensions, dual performance outcomes, dynamic capabilities as mediator, and government support as moderators in Ghanaian SMEs.

This proposal seeks to address a research gap by examining how policymakers and business owners in Ghana can leverage government support as a moderating variable and dynamic capabilities using (i.e.: sensing and learning capabilities) as a mediating variable to foster business growth. By building upon existing research, this study aims to provide deeper insights into the EO-FP relationship in the unique context of developing economies. Ultimately, the findings will inform policy decisions and contribute to a supportive environment for SMEs, which play a pivotal role in driving economic activities.

1.2 Purpose of the Study

This study seeks to investigate the current situation of entrepreneurship orientation in Ghana and to understand government support for the development of the SME sector and business promotion in the country. It is also meant to encourage entrepreneurship and how marketing organizations and managers are responding to the challenges of making decisions in a turbulent business environment and the extent of the dynamic capability to discover alternative operations to match their business environment.

The first purpose was to identity the key components of entrepreneurship orientation that contribute to firm performance. Recognising the link between entrepreneurial orientation and firm performance can offer important insights into how SMEs in Ghana might raise their level of risk taking, proactiveness, innovation, competitiveness, and success in general (Mohammed & Zakari, 2021). Small and medium-sized businesses (SMEs) can strategically adjust and improve their operations by recognising the essential elements of entrepreneurship orientation that contribute to greater firm performance. (Anane et al., 2013; Dana, 2007). The second purpose was to understand the mediation role of Dynamic Capabilities. The ability of an organisation to adapt and develop in response to shifting conditions is referred to as dynamic capability. Investigating dynamic capability as a potential mediator between entrepreneurship orientation and firm performance might help SMEs better understand how to make use of their internal resources to seize opportunities in the market, overcome obstacles, and experience long-term success. (Mukhtar et al., 2019; Jiao et al., 2010). Third was to examine the moderating effect of Government Support. In many developing economies, government support and policies are very important in determining the commercial environment. Investigating how supportive government policies, incentives, and resources affect the link between entrepreneurship

orientation and business success might provide insight into how these factors moderate this relationship. (Nakku et al., 2020) This information can help policymakers create programmes that foster SME growth in an economy. (Songling et al., 2018). And finally, to Contribute to Academic and Practical Knowledge: Conducting a research project of this kind advances academic knowledge of the intricate relationships that exist between entrepreneurship orientation, dynamic capability, government support, and firm performance. (Heaton et al., 2020; Bedoya et al., 2018) The results can build upon the body of knowledge already present in the fields of strategic management and entrepreneurship. Additionally, SME owners, managers, politicians, and business consultants in Ghana can benefit directly from the study's practical implications, which provide practical insights to improve business practises and policy frameworks. (Davidsson, 2002; Clarysse et al., 2011).

1.3 Significance of the Study

The study adds value to the theoretical debate by providing further understanding of EO in the business studies and in the context of Ghana, which include the activities of SMEs, and Ghana's policy development on entrepreneurship. The research would lay the groundwork for future studies that should be clearer about what form of new entry is being captured and how new measures for each form could help compare their influences on firm performance. It would also confirm some constructs identified from prior research and provide indications as to which elements might require revision. This would be accomplished through the examination of antecedents over the conceptualization of EO and its comparison to a different form of entrepreneurship that was evident from the research world in both developed and developing countries. (Cowden & Tang, 2021).

Additionally, Ghana is noted for several law and enactment, and youth development initiatives which seek to identify priority actions for programme with respect to the importance of youth development (Korboe, 2014); and business supports which are aimed at creating businesses and entrepreneurship endeavours for the economy's growth. Therefore, the result of this study may be utilised to develop improved training models and implementation strategies to promote and enhance the activities of SMEs in the country. (Wubin et al., 2022; Osei et al., 2016; Andrews Osei Mensah, 2016). Examples of previous initiatives by the government of Ghana was the establishment of the Private Advisory Group which was one of several steps the government made in 1992 to improve

the business sector's reaction to economic reforms. Other business interventions were the repeal of the Manufacturing Industries Act, 1971 (Act 356); the Legislative Instrument on immigration Quota, which provides investors with an automatic immigration quota, and the Investment Code of 1985 (PNDC Law 116), which encourages joint ventures between international and local investors, were also passed. (Aryeetey & Ahene, 2005). The result of the study could be used to upgrade and provide an informed position for policy adoption in a flourishing era of models for entrepreneurship orientation in Ghana.

Another contribution of the research would focus on the provision of practical solutions to both business owners and marketers on the changing market environment and the question of how to respond to these changes. A lot of businesses, both big and small, are noticing that their markets are changing more quickly than ever before. The question is: what changes must be made to the business for it to survive, and how can managers and business operators ensure that their organization do not miss any chances or threats? Businesses are increasingly facing challenges to keep their knowledge base up-to-date in today's volatile market environment (Ambrosini & Bowman, 2009; and without reconfiguring their knowledge base, a firm's expertise may become outdated, and its economic advantages may disappear (Leonard-Barton, 1992). To promote a better understanding of dynamic capability as indicated by Wohlgemuth & Wenzel, 2016, the study would therefore, contribute from the practical standpoint, how the examination of dynamic capability and its implication to businesses in Ghana, can make further inroads into the growth of SMEs which do not, oftentimes, provide the needed attention and resource requirements to implement changes in their business environment.

1.4 Research Objective

The objective of the work seeks to contribute to the theory or to provide knowledge during the research. The theory would enable us to explain the African context of the academic discussions on the relationship between entrepreneurship orientation and firm performance; and how government support to SMEs can provide a better understanding of the phenomenon through the data that would be collected and analyzed for the research. The data may throw up new ideas about the theory and the explanations about the data may change and adapt as the research is being carried out. Moreover, because of the considerable point of variation in reporting the findings between Entrepreneurship Orientation (EO) and Firm Performance (FP) from the existing literature (Rauch et al.,

2009), we further ask the question as to whether the variation is sufficient to warrant an empirical examination of the mediating and moderating role in the reported relationship. Besides, the study investigated the mediating effects of dynamic capability (i.e.: using sensing and learning capabilities) on the relationship between entrepreneurship orientation and firm performance; the moderating effect of government support to small and medium enterprises (SMEs) in the Ghanaian business environment in Sub- Saharan African. Below are the guided research questions for the study

1.5 Research Questions

1. What is the effect of Entrepreneurship Orientation (Innovativeness, Risk Taking, proactiveness, competitive aggressive, and autonomy) on Firm Performance?
2. What is the mediating role of SC in between EO (Innovativeness, Risk Taking, proactiveness, competitive aggressive, and autonomy) and Firm Performance?
3. What is the mediating role of LC in between EO (Innovativeness, Risk Taking, proactiveness, competitive aggressive, and Autonomy) and Firm Performance?
4. What is the moderating role of Government Support in between Sensing Capabilities and Firm Performance?
5. What is the moderating role of Government Support in between Learning Capabilities and Firm Performance?

1.6 Research Hypothesis

In answer to the stated research questions, it was important to formulate hypothesis to be tested that should provide the key insight to understand the specific constructs used for the research. These hypotheses were formulated based on the literature reviews. It was as a result of the problem statement, the purpose testament and the research questions of the research. Specifically, this study has 17 set of hypotheses. these hypotheses were presented individually to represent each of the variable under study. These are:

1 H1: Innovative has a significant effect on Firm Performance
2 H2: Risk Taking has a significant effect on Firm Performance
3 H3 Proactiveness has a significant effect on Firm Performance
4 H4 Competitive aggressive has a significant effect on Firm Performance
5 H5 autonomy has a significant effect on Firm Performance

6 H6: Sensing Capabilities have a significant mediating role in between innovativeness and Firm Performance

7 H7: Sensing Capabilities have a significant mediating role in between risk-taking and Firm Performance

8 H8: Sensing Capabilities have a significant mediating role in between proactiveness and Firm Performance

9 H9: Sensing Capabilities have a significant mediating role in between competitive aggressiveness and Firm Performance

10 H10: Sensing Capabilities have a significant mediating role in between autonomy and Firm Performance

11 H11: Learning Capabilities have a significant mediating role in between innovativeness and Firm Performance (FP)

12 H12: Learning Capabilities have a significant mediating role in between risk taking and Firm Performance

13 H13: Learning Capabilities have a significant mediating role in between proactiveness and Firm Performance

14 H14: Learning Capabilities have a significant mediating role in between competitive aggressiveness and Firm Performance

15 H15: Learning Capabilities have a significant mediating role in between autonomy and Firm Performance

16 H16: Government Support has a moderating role in between Sensing Capabilities and Firm Performance

17 H17: Government Support has a moderating role in between Learning Capabilities and Firm Performance

1.7 Definitions of Key Terms

1.7.1 Dynamic capability

Dynamic Capability pulls together and integrates concepts that can help one understand not just how firms stay alive but how they develop uniqueness and competitive advantage in environments where competition is robust in both input and component markets as well as in final product markets. (Wohlgemuth & Wenzel, 2016) It creates situations where firms can create and protect their assets in a competitive market and allows firms to executive, where necessary, situations that require the creation of new opportunities. The

focus of dynamic capabilities tries to offer a better understanding to managers of SMEs and businesses; and why some companies do well while others struggle. Over time, these individual businesses, research has indicated, used various characteristics that explain the performance of these industries. Moreso, how these business organizations are efficiently managing their business activities. This concern calls into question, what analyzsing approaches and strategies are located within the product, or services offered by these SMEs and what standard approaches and frameworks are being used for strong competition in the market environment.

1.7.2 Government Support

Government support operates to fund entrepreneurs with the belief that they can generate high financial returns. The government and its agencies like National research bodies, universities, and specialized research centers, as well as research foundations, have been keen to support research based on the assumption that this will help further the role of entrepreneurship in invigorating economic, technological, and social progress. (Westhead & Wright, 2013). Because of these widely held beliefs about the contribution of entrepreneurs to the generation of economic and social well-being, governments worldwide are promoting entrepreneurship policies.

1.7.3 Firm Performance

Many financial metrics, including revenue, cash flow, return on assets, return on equity, and others, have been used in prior research to evaluate firm performance (Haber & Reichel, 2005). To provide a more in-depth evaluation of firm performance, some researchers have explored the combination of financial and non-financial measures (Haber & Reichel, 2005; Selvam et al., 2016). Indicators like market share, sales growth, customer satisfaction, loyalty, and brand equity are examples of subjective non-financial measurements (O'Sullivan & Abela, 2007; Haber & Reichel, 2005). Another strategy focuses on internal and external measurements in addition to financial and non-financial measures (Anderson & Gupta, 2009). Performance assessment also required to create consideration of output and input perspectives. Output measures reflect the firm's key goals and emphasize profitability and results, whereas input measures focus on tasks and activities that are instrumental in reaching the end results (Anderson & Gupta, 2009)

However, in the research field of entrepreneurship, there is a lack of guidance on performance measurement given the difficulty in defining performance (Brush & Vanderwerf, 1992; Haber & Reichel, 2005). Murphy et al. (1996) examined 51 published entrepreneurship studies using performance as the dependent variable and found that the most considered dimensions of performance were related to efficiency, growth, and profit. Following the suggestions of Murphy et al. (1996), this study takes the efficiency, growth, and profit of firm performance into consideration. Efficiency comprises some financial measures such as return on investment and return on equity. Growth focuses on the increase in sales, employees, or market share. Profit includes return on sales and net profit margin. Several studies have suggested that the dimensions of entrepreneurship orientation can lead to market growth rate (Ireland et al., 2003; Shane & Venkataraman, 2000) and firm performance (Lumpkin & Dess,1996; Wiklund & Shepherd, 2003, 2005; Zahra & Garvis, 2000).

1.7.4 SME In Ghana

The NBSSI was the top organization in charge of SME development in Ghana; now Ghana Enterprises Agency (GEA) Act, 2020, (Act 1043) which has repealed the National Board for Small Scale Industries (NBSSI) Act, 1981, (Act 434) and the Ghanaian Enterprises Development Act, 1975 (NRCD 330) (Gyamera et al., 2023). It considers both the value of "fixed assets and the number of employees." A small and medium enterprise (SME) is defined as a business with less than nine (9) employees and plant and machinery valued at less than ten (10) million Ghanaian Cedis (excluding land, buildings, and cars). The Board further divided businesses into three categories: I Micro Enterprises, which employed between one and five (1-5) employees, and (ii) Small Enterprises, which employed between six and twenty-nine (6-29), or had fixed assets that did not exceed $100,000 USD, excluding vehicles, land, and buildings; and (iii) Medium Enterprises, which employed between thirty and ninety-nine (30-99) employees with fixed assets ((excluding vehicles, land, and buildings) worth up to USD $1 million and employing 30 to 99 people. The definition established by the Ghana Business Development Commission was likewise based on the 10 million Cedi ceiling for plant and equipment. (Yamoah, 2014)

1.8 Assumptions of the Study

Assumptions are postulates, premises, and propositions that are accepted as operational for the research. Assumptions include the nature, analysis, and interpretation of the data. Assumptions influence the entire research endeavour. Specifically, the delineation of assumptions provides a basis for formulating research questions or stating hypotheses and for interpreting data resulting from the study; and assumptions provide meaning to the conclusions and lend support to the recommendations. This study included the following assumptions: (a) the selected principals responded to the survey accurately and indicated their perceptions of the use of an entrepreneurship orientation (EO) and firm performance (FP); (b) the selected principals understood the vocabulary and concepts associated with constructs under study and (c) the interpretation of the data accurately reflected the perceptions of the respondents. (Barrett, 2000, p. 20)

1.9 Limitations

The study has the following limitations: (1) the difficulty of resorting to SME database in the country to allow easy access to information was missing. for example, as at the time this research was being conducted, there were no national databases of SMEs operators in the country and the registrar department under the minister of justice attorney general department had no published database of registered business for the public which could be accessed to members of the public and the academic research community for analysis. (2) The questionnaires were circulated among the various SMEs across sections including retail shops, electronic stores, fashion boutique, printing shops and financial service institution which were found in the central business district of the Ghana even though some of the members of the self-regulatory enterprises and organisations which seek to improve the operation of business environment for firm such as the Association of Ghanaian Industries (AGI), Federation of Association of Ghanaian Exporters, Private Enterprise Foundation, EMPRETEC Ghana, and Ghana Association of Women Entrepreneurs were contacted. (Aryeetey & Ahene, 2005) This outside control of not getting the direct database of the association, and its members' details could impact the result of the research on SME in the country.

1.10 Delimitations

The delimitations utilized by the researcher in this study were determined by a desire to understand the relationship of the following main constructs regarding policy formation to government and empirically established marketing studies which were not much research in the Ghanaian context, especially to business organization operating as SME. These constructs are entrepreneurship orientation, dynamic capabilities, firm performance, and government support. Therefore, to gain the perspective of business operators of SMEs, the study was confined to administering survey questionnaires to business owners in Ghana. Central Business District (CBD) were considered (Amoah et al., 2023; Amoako et al., 2014). Three reasons formed the basis of using the Central Business District (CBD) in the county. (Cobbinah et al., 2019. *First,* these cities are the fastest growing cities in Ghana. The major land uses that make up the city are residential, commercial, industrial, and educational. *Second,* there are exponential growth in terms of spatial extent (Oduro et al., 2014), economic activities and demography. *Third,* the cities contained the largest employer, accommodating thousands of people and generating the bulk of the city's income (Blaustein, 2015). *Fourth,* property developers and businesses offer traditional institutions, family members and landlords huge sums of money to vacate ground floors of their residential buildings in order to enable their conversion to shops and other commercial uses (Cobbinah & Niminga-Beka, 2017). There are large, commercial activities taking place on almost every available space in the CBD (Adarkwa & Assasie Oppong, 2005; Adarkwa & Post, 2001).

Furthermore, Due to the nature of the broad business activities in this area, factory, company, and individual business were contacted to fill the response of the questionnaire. University Students from the existing central business districts were recruited to go round the cities to administer the questionnaire with the participants.

1.11 Organization of the Study

To achieve the research objectives outlined above, **t**his dissertation consists of five chapters. In this first chapter, the study's context – entrepreneurship and firm performance – has been introduced. This chapter also outlines the background of the study, the statement of the problem, the purpose of the study, the significance of the study, the definition of terms, the theoretical framework, research questions, limitations, delimitations, and the assumptions of the study.

Chapter 2 provides background on existing literature. It focuses on research conducted on entrepreneurship orientation. A frame is provided, which is then used to briefly depict the historical development of research on entrepreneurship. Thereafter, the chapter turns to research on entrepreneurship orientation within the developing economy context (i.e., Ghana, in sub-Saharan Africa). It also contains an extensive research stream and shares the consensus that emerged from extant literature and the antecedents of entrepreneurship orientation. Specifically, chapter two is organized into four major sections: entrepreneurship orientation, dynamic capability, and government support, firm performance.

In Chapter 3, the researcher describes the methodology used for this research study. It includes the selection of participants, instrumentation, data collection, and data analysis procedures. The detailed components of these themes were expatiated to provide explicit methods and methodology used for the research work. The researcher explains the research methods and shows where and how data were collected. It also described how the questionnaire was developed. The analytical procedures, especially the processes of testing hypotheses using structural equation modelling are explained. The development of the theoretical model, based on the research frame and the seventeen (17) hypotheses on the relationship between entrepreneurship orientation and firm performance and the mediation and moderating role of both the dynamic capability and government support is developed. The chapter closes by summarising the existing literature, demonstrating the research gap, and reaffirming the research questions and hypothesis.

Chapter 4 presents the study's findings including demographic information, testing the research questions, confirmatory factor analysis, and results of the data analyses for the five research questions. It provides a summary of the entire study, a discussion of the findings, implications of the findings for theory and practice, recommendations for further research, and conclusions.

Chapter 5 contains the interpretation of the empirical findings and their linkages to prior literature and hen provides the details about how this study might benefit management practices as well as the four research areas: entrepreneurship orientation, dynamic capability, government support, and firm performance. The researcher describes the

study's theoretical and methodological shortcomings and indicates potential directions for further investigations. In the final chapter, the researcher draw concludes the dissertation.

In conclusion, this chapter contains the introduction of the study. It describes the background of the study, statement of the problem, purpose of the study, the significance of the study, definitions of terms, theoretical framework, research question, research hypothesis, assumption, and the organization of the study. The next chapter discusses the literature review.

CHAPTER TWO
LITERATURE REVIEW

2.0 Introduction

This chapter presents the rationale for researching the relationship between entrepreneurial orientation and firm performance, dynamic capability, and government support as the moderating variable. Research into entrepreneurship orientation and firm performance has been studied over the last three decades and a lot of understanding had been expressed on several dimensions of the topic which was connected to the conceptual framework of resource-based view (RBV). This study sought to review the mediation and moderation effect of dynamic capability and government support as the key constructs to entrepreneurship orientation debate and it would contribute to the research importance of advancing EO in the context of a developing economy and how SMEs firms can benefit due to the discussion of the theoretical understanding of the relationship between the entrepreneurship orientation and firm performance.

Furthermore, the recognition of Dynamic Capabilities (DC) had become recent in the discourse of management for scholars and the changes in the marketing and business environment have caused the need to understand how organizations survive in the business eco-system. DC plays a crucial role in providing a better understanding to marketers and businesses. It refers to a firm's ability to sense opportunities, seize market changes, and reconfigure internal resources to maintain competitive advantage in changing environments. These capabilities are particularly critical for SMEs, as they enable firms to adapt to market volatility and technological advancements, differentiating high-growth SMEs from stagnant ones. Meanwhile, Government support plays a pivotal role in fostering the growth and sustainability of Small and Medium Enterprises (SMEs) across various industries in Ghana. The conceptualisation of government support in business research encompasses a wide array of policies, programs, and initiatives designed to address the unique challenges faced by SMEs.

Thus, this study sought to examine the mediating effect of dynamic capabilities and the moderating effects of government support on SMEs in Ghana. The following review of the literature represents the literature pertinent to my research study, namely,

Entrepreneurship Orientation and Firm Performance, Dynamic Capabilities, and Government Support. Specifically, chapter two is organized into five sections: Entrepreneurship Orientation, Dynamic Capability, Government Support, Firm Performance, and SME Businesses in Ghana.

2.1 Entrepreneurship Orientation: A General Overview

The concept of an orientation toward entrepreneurial activity has been given a variety of labels in past research, including the following: entrepreneurial orientation, intensity, style, posture, proclivity, propensity, and in some instances, corporate entrepreneurship (e.g., Zahra, Jennings, & Kuratko, 1999). The field of entrepreneurship has become "general" - one that was broad enough to capture different sorts of processes in different contexts (Miller, 2011). It eluded a wide range of topics and perspectives that is impossible to include them all under the umbrella of one discussion (Santi Nururly et al., 2022; Damão, 2020; Weerakoon et al., 2020 Jeong et al., 2019). The first definition of EO was offered by Mintzberg (1973) and later other researchers used and further developed these definitions across industries, countries, and cultures. For instance, Lumpkin and Dess (1996) defined EO as a process, practice, and decision-making activity that leads to a new entry.

This perception emerged that the new entry opportunities would be successfully implemented by purposeful enactment (Van de Ven and Poole, 1995). By expanding the number of dimensions to measure EO, Lumpkin, and Dess (1996) identified five dimensions. These are: autonomy, innovativeness, risk-taking proactiveness, and competitive aggressiveness that independently and collectively define the domain of EO (Covin and Wales, 2012). EO has been defined in a variety of manners in past research (for a summary of past definitions of EO as a strategic posture, see Covin and Wales, 2012: 679). Anderson et al. (2009) offers a succinct, but encompassing and representative definition of EO as a firm's decision-making practices, managerial philosophies, and strategic behaviours that are entrepreneurial in nature. The three dimensions of EO which have historically captured EO as a firm-level overarching strategic posture are innovativeness, proactiveness, and risk-taking. These dimensions are derived from Danny Miller's early work on a firm's strategy-making (Edmond and Wiklund, 2010; Miller, 2011). Given the various labels attached to the phenomenon, researchers are yet to settle

upon the widely accepted definition of EO, and the table below chronicled some of the definitions that were offered by scholars in strategic management courses.

Table 1:various definitions sample*d* from the literature

Authors	Definitions of Entrepreneurship Orientation
Mintzberg (1973)	"In the entrepreneurial mode, strategy-making is dominated by the active search for new opportunities" as well as "dramatic leaps forward in the face of uncertainty" (p. 45).
Khandwalla (1976/1977)	"The entrepreneurial [management] style is characterized by bold, risky, aggressive decision-making" (p. 25
Miller and Friesen (1982)	"The entrepreneurial model applies to firms that innovate boldly and regularly while taking considerable risks in their product-market strategies" (p. 5).
Miller (1983)	"An entrepreneurial firm engages in product-market innovation, undertakes somewhat risky ventures, and is first to come up with 'proactive' innovations, beating competitors to the punch" (p771)
Morris and Paul (1987)	"An entrepreneurial firm is one with decision-making norms that emphasize proactive, innovative strategies that contain an element of risk" (p249)
Covin and Slevin (1998)	"Entrepreneurial firms are those in which the top managers have entrepreneurial management styles, as evidenced by the firms' strategic decisions and operating management philosophies. Non-

	entrepreneurial or conservative firms are those in which the top management style is decidedly risk-averse, non-innovative, and passive or reactive" (p. 218).
Merz and Sauber (1995)	". . . entrepreneurial orientation is defined as the firm's degree of proactiveness (aggressiveness) in its chosen product-market unit (PMU) and its willingness to innovate and create new offerings" (p 554)
Lumpkin and Dess (1996)	"EO refers to the processes, practices, and decision-making activities that lead to new entry" as characterized by one, or more of the following dimensions: "a propensity to act autonomously, a willingness to innovate and take-risks, and a tendency to be aggressive toward competitors and proactive relative to marketplace opportunities" (pp. 136–137).
Zahra and Neubaum (1998)	EO is "the total of a firm's radical innovation, proactive strategic action, and risk-taking activities that are manifested in support of projects with uncertain outcomes" (p. 124)
Voss, Voss, and Moorman (2005)	"...we define EO as a firm-level disposition to engage in behaviors [reflecting risk-taking, innovativeness, proactiveness, autonomy, and competitive aggressiveness] that lead to a change in the organization or marketplace" (p. 1134,
Avlonitis and Salavou (2007)	"EO constitutes an organizational phenomenon that reflects a managerial capability by which firms embark on proactive and aggressive initiatives to alter the competitive scene to their advantage" (p.567)

Cools and Van den Broeck (2007/2008)	"Entrepreneurial orientation (EO) refers to the top management's strategy about innovativeness, proactiveness, and risk-taking" (p. 27).
Pearce, Fritz, and Davis (2010)	"An EO is conceptualized as a set of distinct but related behaviors that have the qualities of innovativeness, proactiveness, competitive aggressiveness, risk-taking, and autonomy" (p. 219).

Source: (Covin & Wales, 2012)

2.1.1 Historical Development of Entrepreneurship Orientation Research

The historical roots of the EO concept have previously been addressed in several recent studies including Anderson et al. (2015), Basso et al. (2009), Covin and Wales (2012), Edmond and Wiklund (2010), and Miller (2011). The historical aspect of the entrepreneurship orientation would specifically focus on the following (1) the field's historical development and the evolution of entrepreneurship orientation (2) notice of several authors that provided a historical review of the key theories adopted in the entrepreneurship research (3) the economic, industrial, and societal setting of the construct that provided the historical context of the construct used in research works.
there were three different periods for the study of entrepreneurship research as indicated in the review work of Hans Landström and Mats Benner (Landström, H., & Lohrke, F. (Eds.). (2010). Who discussed at length, the migration patterns of entrepreneurship to understand the historical development of the construct. The three eras of entrepreneurship research were anchored in different disciplines: the economic era from 1870 to 1940, the social science era from 1940 to 1970, and the management studies era from 1970 to the present. Today, they conclude, the field could be regarded as 'searching for maturation' including an intense debate on the domain of entrepreneurship research, a division of the research community, and an increased interest in the theoretical development of the field.

The evolution of the field was reinforced by a 'creative destruction' in society toward a focus on industrial dynamics and entrepreneurship, and as a result, entrepreneurship has become a centrepiece in the political debate in many countries around the world. The development of entrepreneurship as a research field bears the stamp of intense immigration of scholars, not least from the broader area of management studies. After the

'take off' in the 1980s, entrepreneurship as a research field grew significantly in the 1990s, creating a strong infrastructure for research. From 2000 onwards, a 'search for maturation' within the field could be identified, including (1) an intense debate on the domain of entrepreneurship research, (2) the division of the research community into a group of 'entrepreneurship researchers' and another, rather scattered group of researchers interested in entrepreneurship within many different disciplines ('disciplinary researchers'), and (3) an increased interest in the theoretical development within the field.

2.1.2 Entrepreneurship Orientation (EO) in the research circle

According to studies, the term entrepreneurship orientation (EO) first appeared in the 1970s and represents the behaviour of entrepreneurial firms in practice (Stambaugh et al., 2017). Covin and Wales (2019) claim that when a firm exhibits and encourages entrepreneurial behaviour with enough regular firm features, EO manifests. Researchers who have studied the EO have shown how new entrants over time exhibit traits including innovativeness, risk-taking, and proactiveness as well as competitive aggressiveness and autonomy in business activities to survive in the market and achieve a competitive advantage (Wales, 2016). EO refers to two different phenomena, according to Covin and Wales (2019): (1) As a unitary concept that demonstrates the organizational trait with certain dominant characteristics of entrepreneurship, such as innovativeness and proactivity alongside risk-taking. (2) As a multi-dimensional construct where the EO refers to a process, practice, and decision-making activities that support emerging enterprises together with dimensional antecedents including autonomy, competitive aggressiveness, innovativeness, proactiveness, as well as risk-taking. (Rubiales-Núñez et al., 2025; Wales et al., 2023; Niemand et al., 2025; White et al., 2021).

There were studies in the past examining the EO from different perspectives including the following: environmental and organizational influences (e.g., Becherer & Maurer, 1997; Lumpkin & Dess, 2001) strategic context of EO (Covin, Green, & Slevin, 2006) and the links between EO and a firm resources and capabilities (Dess, Lumpkin, & Covin,1997; Smart & Conant, 1994). Most of the study focuses on how EO affects performance directly, indirectly, and in response to various settings, moderating or moderated by various methods, and other factors (Covin et al.; Dess et al.; Poon et al.; Rauch, Wiklund, Free, & Lumpkin, 2009; Richard, Barnett, Dwyer, & Chadwick, 2004; Wiklund & Shepherd, 2003, 2005). In the study such as Green, Covin, & Slevin, 2008;

Lumpkin & Dess, 2001; Richard et al., 2004; Wiklund & Shepherd, 2005, attempts were made to employ moderating factors and mediators to determine the organizational and environmental circumstances in which the linkages between EO and performance, or components of EO and performance, are most likely to occur.

In the article of Miller titled: “Miller (1983) revisited, a reflection of EO research and some research suggestions for the future”, he mentioned the three reasons why the study of EO is still stimulating and interesting to academia. These reasons are: First, in economically booming and more market-oriented regions like China, India, Russia, the Asian Tigers, and South America, there is a growing understanding of the significance of entrepreneurship. Business creation and innovation are significant because of economic growth and societal well-being. Therefore, interest in the EO is encouraged by the realization of smaller start-ups and major employment growth. Secondly, the popularity of EO may be influenced by the accessibility of resources. In contemporary society, entrepreneurs are strongly symbolic and even legendary entities. They are the focus of a lot of media attention, in that, Students, instructors, and researchers are drawn to the business curriculum because of how practically applicable entrepreneurship is and thirdly, there are localized sources of interest in EO. (Miller, Hartwick, & Le Breton-Miller, 2004). Researchers use a variety of samples, making it difficult to identify the circumstances in which entrepreneurship occurs and, consequently, the significant differences in terms of the forms, types, sources, and outcomes of entrepreneurship to be investigated.

Lumpkin and Paddock (2021) argue that competitiveness (dropping the “aggressive” modifier) and autonomy (“breaking free from constraints” and “breaking up existing regimes”) are essential to describing entrepreneurial activity (beliefs and behaviours) in addition to innovativeness, proactiveness, and risk-taking. Moreover, in line with their perspective concerning a “global” view of EO, they posit that entrepreneurial (i.e., innovative, risk-taking, proactive, autonomous, and competitive) beliefs and behaviors can be studied within populations that are not traditionally viewed as entrepreneurs, including “educators and administrators, doctors and nurses, high schoolers and homemakers, athletes, and soldiers.” "Since our world appears to become more uncertain by the day, EO may be more crucial now than ever. Its practical necessity is shown by the requirement for organizations of all shapes and sizes to endure and flourish in an

ambiguous and uncertain environment. The need to continue comprehending the function of EO in modern society is evident everywhere.

2.1.3 Criticisms of Entrepreneurship Orientation Research

Building on the work of George and Marino (2011), it is important to emphasize that for knowledge accumulation to occur, future research seeking to add to the knowledge base on EO should include the three core dimensions of EO offered by Miller/Covin and Slevin (1989) and incorporated within the work of Lumpkin and Dess (1996). A variety of dimensional combinations have been constructed in past research (Wales et al., 2013a). Some researchers view this proliferation of different constructs negatively, arguing that it has hurt the rigor and relevance of EO research (Basso et al., 2009). They argue that a return to the Miller/Covin and Slevin (1989) conceptualization would give new impetus to the creation of cumulative knowledge around a stabilized construct. While cumulative knowledge has amassed around EO–performance relationships (Rauch et al., 2009), the future comparability of research findings remains important. In this vein, George and Marino (2011) meaningfully assert that our ability to build on previous work and create a body of comparable research findings demands that our conceptualizations and definitions maintain an element of consistency – that studies refine our theoretical definitions rather than redefine them.

As research on EO moves into such new areas and applications, we concur that scholars must think critically to develop new conceptualizations of how the dimensions are expressed, understand theoretically why specific elements of EO contribute to outcomes, develop insight into cogent thematic configurations, and develop new measurement instruments among other research considerations. Scholarly study in both entrepreneurship and strategic management has benefited greatly from the EO research of pioneers in the discipline including Greg Dess, Dennis Slevin, Jeff Covin, Tom Lumpkin, and Danny Miller. (Covin and Lumpkin, 2011; Covin and Wales, 2012; Miller, 2011). Nonetheless, researchers are advancing the inclusion of additional characteristics. or adopting EO dimensions to a particular context (George and Marino, 2011). The investigation of which caused further classification of alternate composite dimensions which were classified as a “concept travel” of EO in specific potential research areas. (Covin and Lumpkin (2011). Covin and Miller (2014) support this idea by speculating that international EO research would need the use of different dimensions. Moreover,

studies have urged the "idea migration" of EO into certain contexts like non-profits (Morris et al., 2011). Others have argued that present measurements should be modified to study EO as a unit-level phenomenon that reflects intermediate behavioral steps in the entrepreneurship process, such as exploratory ventures, projects, and trials that result in new product-market offerings (Wales et al., 2011).

2.2 Overview of Dynamic Capabilities

Dynamic capacity is a concept that seeks to explain how and why businesses survive in a circumstance where technology, society, and markets are changing so quickly while others are failing. (Leemann & Kanbach, 2021; Akenroye et al., 2020). According to Barreto (2010), three variables have sparked interest in the study of dynamic capabilities: the first is the expanding body of literature on the subject and the definitions of the construct (Døving & Gooderham, 2008), Eisenhardt & Martin (2000), (Helfat & Peteraf, 2009), Teece (2007), and (Zahra et al., 2006) are a few examples. Such a diversity of definitions demonstrates the topic's vibrancy. For example, in the work of Tondolo et al., the author discusses at length, the dynamic capability conception, its antecedent, processes, and outcome aimed at providing a better understanding of the concept which has drawn the attention of researchers on the development of resources and capabilities. (Tondolo & Bitencourt, 2014).

Second, there is a complex body of research pointing to the various directions which resulted in various directions on the rapid expansion of dynamic capability literature. For instance, when exploring the role of dynamic capabilities in firm performance under resource view framework (Lin & Wu, 2014). To allocate resources precisely and build dynamic capabilities, business owners must investigate the relationship between resources and dynamic capabilities considering dynamic competitive environment. In other words, this study looks at which dynamic capabilities mediate the relationship between Entrepreneurship Orientation and firm performance. (Ringov, 2017; (Protogerou et al., 2012). Therefore, the files need review and critique from which relevant guidance for future research can be offered not only to the main concept but also to establish the relationships and boundary conditions of the construct. (Alkhamery et al., 2021; Zaidi & Othman, 2011)

Third, despite the large body of research that has looked at dynamic capacities, the methodology has come under some significant criticism. Williamson (1999), for instance, claimed that the notion of dynamic capabilities is tautologically linked to success and that fundamental constructs are not properly operationalized, whereas Winter (2003) claimed that the concept's excessive reliance on generalized formulas for universal effectiveness is to blame for some of the mystique and confusion surrounding it. "Although the concept of dynamic capabilities is intriguing, it is a somewhat vague and elusive, one which has thus far proven mainly resistant to observation and measurement," claimed Kraatz and Zajac (2001: 653). For a small selection of empirical tests using the dynamic capabilities approach, Newbert (2007) found weak support. To determine whether and to what extent these persistent criticisms are justified and, more importantly, which specific methodologies should be used in the future study, the discipline would benefit from an expanded overview of the research that has been done thus far.

There is currently a large body of material on dynamic capacities (DC) that is published in leading management journals as well as critical assessment research efforts including works on start-up companies (Pigola et al., 2022; Kwiotkowska, 2022; Girardi, 2023), corresponding suggestion research on mediation. (Kriswijayanto et al., 2022) and DC is concerned with leveraging and developing knowledge for organizational and innovative processes ((Bhardwaj et al., 2021). Teece and Pisano also offer early definitions of the dynamic capability framework. The ability of the company to integrate, build, and reconfigure internal and external competencies to address quickly changing conditions was the initial definition of dynamic capabilities (Teece, Pisano, and Shuen, 1997: 516). Further research improved and broadened the first notion of dynamic capacities. Dynamic capacities were described as "the firm's processes that utilize resources... to match and even drive market change" by Eisenhardt and Martin (2000: 1107). In this notion, organizational processes served as a vehicle for dynamic capacities. Examples of dynamic capabilities as processes were offered by Eisenhardt and Martin (2000) and included routines for product development, alliance and acquisition capabilities, resource allocation, and knowledge transfer and replication. Eisenhardt and Martin (2000) expanded the original concept of dynamic capabilities to encompass the development of market change as well as the response to an exogenous change in addition to identifying dynamic capabilities as processes. These authors further noted that dynamic capabilities can operate in environments other than those experiencing rapid change.

2.2.1 Dynamic Capability: Definition

We offer the following definition, building on the earlier literature: Dynamic capabilities are described by Breznik and Hisrich (2014) as a company's ability to develop, expand, and change its foundation of tangible or intangible resources and competencies. Yet, important definitions of dynamic capabilities (Eisenhardt and Martin, 2000; Zollo and Winter, 2002) share a critical reference point: the crucial idea of change in organizational capacities. Initially, the concept was an extension of the idea of path dependence (Ambrosini and Bowman, 2009; Winter, 2003). Hence, the core of the dynamic capabilities approach is the evolution of resources and competencies (Wang and Ahmed, 2007). According to some studies (Eisenhardt and Martin, 2000; Zollo and Winter, 2002), dynamic capabilities are defined in terms of the transformation of resources and competencies.

Later, several different conceptualizations of dynamic capabilities were presented in the extant literature. Some of them adopted a strategy more in line with RBV, while others tended to adopt one more in line with evolutionary economics. The nature, particular function, pertinent context, creation and evolution procedures, types of outputs, heterogeneity assumptions, and goals of dynamic capabilities all differ greatly throughout different concepts. The main alternative conceptualizations are then briefly discussed; the key definitions are presented below in (Table 1).

Table 2: Sample definitions of Dynamic capabilities from the literature

Study	Definition
Teece & Pisano (1994)	The subset of the competencies and capabilities that allow the firm to create
Teece, Pisano, & Shuen (1997)	The firm's ability to integrate, build, and reconfigure internal and external competencies to address rapidly changing environments
Eisenhardt & Martin (2000)	The firm's processes that use resources—specifically the processes to integrate, reconfigure, gain, and release resources—

	to match and even create market change; dynamic capabilities thus are the organizational and strategic routines by which firms achieve new resource configurations as markets emerge, collide, split, evolve, and die
Teece (2000)	The ability to sense and then seize opportunities quickly and proficiently
Zollo & Winter (2002)	A dynamic capability is a learned and stable pattern of collective activity through which the organization systematically generates and modifies its operating routines in pursuit of improved effectiveness
Winter (2003)	Those (capabilities) that operate to extend, modify, or create ordinary capabilities
Zahra, Sapienza, & Davidsson (2006)	The ability to reconfigure a firm's resources and routines in the manner envisioned and deemed appropriate by its principal decision-maker (s)
Helfat et al. (2007) Teece (2007)	The capacity of an organization to purposefully create, extend or modify its resource base
Teece (2007)	Dynamic capabilities can be disaggregated into the capacity (a) to sense and shape opportunities and threats, (b) to seize opportunities, and (c) to maintain competitiveness through enhancing, combining, protecting, and, when necessary, reconfiguring the business enterprise's intangible and tangible assets

Source: (Barreto, 2010)

2.2.2 The Root of Dynamic Capabilities

The genesis of capabilities can be traced to at least from the work of Alfred Marshall, a social economist. (Keynes, 1924; Jensen, 1987). He discussed, for instance, how a capable manager who fosters loyalty develops a culture that endures beyond the manager's term in his Industry and Trade (Marshall, 1919) (pp. 326–327). Regretfully, Marshall's use of maths received considerably more attention than his profound comprehension of how businesses function and change as his work was adopted by others. The term "capabilities" was first used by Oxford economist George Richardson in the 1970s. He defined them as an organization's "knowledge, experience, and skills" that were not represented in the traditional production function, but they were never included in a theory or framework (Richardson, 1972, p. 888). Other intellectual support of more dynamic theories on how firms choose, create and orchestrate capabilities evolved over time. Richard R. Nelson, Sidney G. Winter, Nathan Rosenberg, and Edwin Mansfield. Nelson and Winter incorporated the key idea of organizational routines into a theory of the capabilities of firms and the host of recent scholars like the Gary Pisano, Connie Helfat, Will Mitchell, Brian Silverman, Giovanni Dosi, and Richard Rumelt including David J Teece assisted and engaged to craft a framework that brough capabilities theories and strategic management theories together (Adams et al., 2023, pp117).

It is possible to trace the intellectual roots of dynamic capabilities—a framework for comprehending how businesses react to waves of change—back to Joseph Schumpeter (1934), who noted that new competitors frequently replaced established businesses with products that were more appealing, better-quality, or cheaper. However, Schumpeter made little progress towards creating a firm-level theory because his primary focus was on broader macroeconomic discussions. These kinds of ideas are essential to comprehending how managers choose the most advantageous arrangement of resources both inside and outside the company. Even if the framework of dynamic capacities includes strategy formation.

2.2.3 Theoretical Frameworks of Dynamic Capabilities Research

The extant literature, both empirical and conceptual, provides useful information as they define, create, show, analyze, or explain DCs in diverse settings. The research has been conducted in a variety of sectors, including manufacturing (Kylaheiko, & Sandstrom, 2007), high-tech (Helfat, 1997; Deeds, DeCarolis, & Coombs, 1999; Hung, Chung, & Lien, 2007; Wu, 2007, 2009), consumer products (Zhou, & Li, 2009), the public sector (Pablo, Reay, Dewald, & Casebeer, 2007), telecommunication and information technology (Majumdar, 1999; Bhutto, 2005; Wu, 2006; Wu, & Wang, 2007; Cepeda, & Vera, 2007; Liao, Kickul, & Ma, 2009) and mobility industries. Besides, Strategic alliances (Chen, & Lee, 2009; Chen, Lee, & Lay, 2009), entrepreneurship (Jantunen, Puumalainen, Saarenketo, & Kylakeiko, 2005; Wu, 2007), knowledge management, and organizational learning (Zollo, & Winter) are among the topics that are typically researched under DCs in addition to strategic management (Teece, Pisano, & Shuen, 1997). Furthermore, the frequently discussed aspect of the literature on the concept includes the environment (Newbert, 2005; Eisenhardt, & Martin, 2000; Teece, Pisano, & Shuen, 1997), assets and resources (Cavusgil, segue, & Talay, 2007; Bowman, & Ambrosini, 2003; Teece, Pisano, & Shuen, 1997), processes and activities (Menon, 2008; O'Connor, 2008). The creation and comprehension of a theory are fundamental to academics' interest in DCs (Teece, Pisano, & Shuen, 1997; Eisenhardt, & Martin, 2000; Winter, 2003; Helfat, & Peteraf, 2003; Lopez, 2005; Teece, 2007; Schreyogg, & Kliesch-Eberl, 2007; Teece, 2007; Menon, 2008). Furthermore, Dynamic capabilities are becoming more widely used in empirical research to structure evaluations of digital transformation in a variety of industries, including publishing and agribusiness (Cannas, 2021; Chirumalla, 2021; Ellström et al., 2021; Warner & Wäger, 2019; Soluk & Kammerlander, 2021)

Also, depending on the situation being researched, DCs' influencing elements can vary. Examples of factors examined in the literature include environmental changes and opportunities (Liao, Kickul, & Ma, 2009; Boccardelli, & Magnusson, 2006), firm orientation (Zhou, & Li, 2009; Desai, Sahu, & Sinha, 2007) and marketing orientation for CRM capabilities (Desai, Sahu, & Sinha, 2007). However, businesses and Managers need dynamic capabilities in their everyday operations to manage disorders (Sniazhko, 2019). Lala et al., 2023 stated that, relevant studies categorize these dynamic capabilities into personal (Eriksson et al., 2014), inter-organizational (Blomqvist and Levy, 2006), and

intra-organizational capabilities (Weerawardena and Mort, 2006). Businesses need to acquire the "dynamic capabilities" necessary to expand, innovate, and modify their business activities or revenue streams if they are to thrive in an ever-changing environment. Some dynamic capabilities enable firms to enter new businesses and extend old ones through internal growth, acquisitions, and strategic alliances. Other capabilities help a firm to create new products and production processes. Yet others involve the capabilities of the managers responsible for leading profitable firm change and growth (Helfat, 2007). Therefore, for the purposes of the proposed model of this research, the researcher embraced and reconciled the various labels that were used in the literature and grouped them to reflect and represent Teece et al (1997).'s and Teece's (2007) conceptualization. Two of the dynamic capabilities prominently discussed by David J Teece were used in this research. These were: sensing capabilities and learning capabilities (Pavlou & El Sawy, 2011).

2.2.4 Dynamic Capabilities: Reasons for Sensing and Learning Capabilities

Even though all four dimensions may be present when a company changes its resource base to increase its competitive advantage and performance, this research considers that, each dimension may not be equally valuable for enhancing firm performance, particularly in a SME context, which tends to be more resource constrained. SMEs find it challenging to establish DC as an asset, in contrast to larger companies with more resources (Palmié, Lingens, and Gassmann 2016). Due to their reduced market power and high susceptibility to outside influences and environmental changes, the most crucial traits for SME performance are their capacity to preserve flexibility and adapt to a changing environment *(*Urban & Mothusiwa, 2014; Stefanović et al., 2009). Therefore, SMES may find it difficult to regularly renew their resource base to respond to a changing environment, unlike their larger peers. Given the obstacle faced by SME in Ghana, the lack of competitiveness internationally, and the less value of addition to their resources as fewer processes are possibly involved in the production, the choice of sensing and learning capabilities were adopted for the model of this research because of the basic routine associated with SMEs in Ghana.

Furthermore, within Teece's dynamic capabilities framework, sensing and learning mediate entrepreneurship orientation (EO) into firm performance (Hernández-Perlines et al., 2026; Teece et al., 1997). Dynamic capabilities involve sensing, seizing, and reconfiguring resources (Li et al., 2025). Sensing and learning are microfoundations or they are at the individual- level that channel EO into strategies (Wang et al., 2015). Sensing capabilities operationalize EO's dimensions of innovativeness, proactiveness, and risk-taking by enabling SMEs to scan and anticipate shifts in customer needs and conditions. In Ghana, sensing helps firms respond to government interventions like funding and regulatory changes (Whajah & Adenutsi, 2025). Without it, EO remains latent. In the case of Learning capabilities, it internalizes and transforms sensed opportunities into routines, enhancing absorptive capacity to assimilate knowledge and adapt strategies (Sulemana et al., 2026). This is crucial in Ghana's SME sector, where government support is beneficial only when firms effectively interpret and apply knowledge, making them impactful in the business environment. (Alhaji Husseini & Gáti, 2025).

2.2.4.1 Sensing Capability

Sensing consists of "analytical systems to learn and to sense, filter, shape, and calibrate opportunities" (Teece, 2007). It enables organizations to acquire information that can help anticipate or better understand customer needs (Wagner et al., 2017). A lack of understanding of specification requirements has been cited by researchers (Akenroye and Aju, 2013a; Cabras, 2011) as a key barrier to SME participation in public procurement. Hence, small firms might need to develop "sensing" capabilities for collecting information to better understand the requirements of their public-sector clients. One way to achieve this is to communicate more often with public buyers, gain a clear understanding of what their needs are, and then put forward a strong bid/proposal. It is also necessary to specify the role that sensing capabilities play inside the organization. More precisely, the management and organizational procedures that support dynamic capabilities are regarded by Teece (2007) as sensing capabilities. There are three keys of sensing capabilities (Dias & Lages, 2021). To begin with, the firm has to be able to scan its surroundings. There are two main literary streams that deal with this aspect. firms need to be able to create a systematic scanning mechanism that is based on organizational articulation and analytical procedures to monitor and analyze market developments. (Teece 2007; Laamanen and Wallin 2009). The other is based on management cognitive

elements that support process analytical processes by means of relational capacities, managerial intuition, and individually acquired knowledge and experience (Shane and Venkataraman, 2000). Scanning operations are connected to searching for activities in the business ecosystem, and the creation of market information. (Pavlou and El Sawy 2011). According to Teece (2007), being in close proximity to the consumer also makes it easier to fully understand their requirements and concerns. As a result, maintaining good client relations is crucial for scanning operations (Danneels, 2011; Zahra et al., 2006). As a result, scanning involves coordinating relational skills with analytical reasoning (Wood and McKinley, 2010).

Secondly, it is important to assess the scanning results using interpretation processes (Eckhardt and Shane, 2003). This will help to prevent scenarios where focus is drawn away from the opportunities that a successful scanning activity may bring to light (Teece, 2007). Possessing the experience required to recognize an opportunity and having the cognitive capacity to appraise it are prerequisites for recognizing its potential for profit (Groysberg and Lee, 2009; Shane and Venkataraman, 2000; Zott and Huy, 2012). Thus, in order to filter and align the opportunities to be investigated within the framework of the organizational goal, interpretation is crucial (Wood and McKinley, 2010). Managers and entrepreneurs should assess new advancements and determine which technology and market sector to target in order to interpret the opportunities that have been glimpsed (Teece, 2007). Main decision-makers of the company or important members of the entrepreneurial team who are in charge of the business engage in evaluation as part of the multi-expert decision-making process known as opportunity evaluation (Rastkhiz et al., 2019). Market intelligence should be disseminated through this method (Kogut and Zander, 1996; Pavlou and El Sawy, 2011).

Third, putting strategies in place to take advantage of market knowledge and mobilizing resources are linked to reacting to market possibilities (Teece, 2007; Pavlou and El Sawy, 2011). According to Fang and Zou (2009), these designs encourage the creation of cross-functional business processes that increase customer value. Middle management can complete organizational articulation by incorporating this new market knowledge into corporate operations (Teece, 2007). Sensing involves investment in research activity and the probing and reproving of technological possibilities. Previous studies have emphasized that research activity will increase firm's own knowledge and the relevant

prior knowledge is critical for organizations to evaluate the new information (Zhou et al., 2019).

2.2.4.2 Dimensions of sensing capabilities

According to Dias & Lages (2021), there were four dimensions of sensing capabilities. Literature about sensing capabilities addresses the need for the integration of three key components, as discussed above. As such, our measure not only comprises the perspective of organizational systems to obtain and translate the market information into organizational learning but also includes the human experiential and relational factor. The four dimension of sensing capabilities are: (1) analytical processes, (2) customer relationships, (3) business experience and (4) organizational articulation. These four constructs are explained in detail below.

Analytical processes are systematic scanning of changes in environmental opportunities which is linked to sensing capacities. Businesses that don't develop these procedures are less equipped to analyze their market and identify opportunities (Teece, 2007). It is generally agreed upon that analytical processes can be regarded as organizational routines or processes after the theoretical development of dynamic capacities (Eisenhardt and Martin, 2000). The monitoring function of analytical processes plays a crucial role in the adoption of remedial actions by continuously scanning changes in the environment (Schrey€ogg and Kliesch-Eberl, 2007). Many mechanisms and systems are taken into consideration in the literature on analytical processes to identify opportunities. These include tracking customers and prospects (Harmsen and Jensen, 2004), formal and informal contacts with stakeholders (Vorhies et al., 2005; Teece, 2007), in-house market research, and the ability to detect changes in their preferences (Jaworski and Kohli, 1993).

Customer relationships maintain a ties with clients which is essential for the business to recognise opportunities (Teece, 2007). Keeping an eye on consumer needs and converting them into organizational answers requires proximity to the customer (Harmsen and Jensen, 2004). The relational viewpoint that the company and its members construct affect how organizational actions are adapted (Rothaermel and Hess, 2007; Zahra et al., 2006). A tool for gaining a stronger competitive edge is customer relationship management (Barrales-Molina et al., 2014). According to Wang et al. (2015), relational capabilities—such as information and innovation—are essential for enabling firm

capabilities. They improve cooperation regardless of the degree of market volatility. Furthermore, the way organizational culture views customers and the importance of listening to the market is connected to the concretization of this dimension (Zahra et al., 2006). And these interactions of the culture built by the staff through their behaviors in an organization to support and be responsive to customer requirements was influenced by the work of Parasuraman et al, (1988).

Business experience takes into account the relationships with customers as well as the capability of filtering the possibilities found through analytical procedures. This is the management team's domain of creativity and subjective perception (Kor et al., 2007). The complementary significance of managers' experience in interpreting the data generated by the analytical methods is highlighted by recent studies (Kuckertz & Wagner, 2010; Shi et al., 2024). Analytical procedures have been shown to impair understanding of market patterns, reduce genuine sensing, and eliminate a number of critical managing skills, including intuition and emotion. Divergences in managerial cognition are associated with variations in strategic transformation (Zott and Huy, 2012). One of the most important components of dynamic skills is experience, which is crucial when venturing into new markets (Groysberg and Lee, 2009). Entrepreneurship literature offers another viewpoint that highlights the value of managerial experience. It contends that identifying opportunities requires the development of particular skills, such as industry expertise (Rasmussen et al., 2011a). The reason this aspect of sensing capabilities matters is that competitive parity may result from the exclusive employment of analytical procedures. Since other businesses in the limit are vying for these systems, all rivals are aware of the same market prospects, hence decision making can produce similar strategies between rival firms (porter 1996).Given the ability to observe, evaluate, and continuously monitor changes in the market (i.e., consumers and competitors), a firm that possesses market sensing capability will be able to make relevant decisions. Companies possessing these competencies are better able to identify possible possibilities and dangers. (Bayighomog Likoum et al., 2020)

Organizational articulation is necessary for the efficiency of analytical procedures and learning through customer relationships. Sensing capabilities and asset orchestration are strongly associated with managerial tasks (Helfat and Martin, 2014). Interpretation and knowledge absorption are the two main pillars. This articulation, according to Teece

(2007), p. 1326, ensures a "filter so that attention is not diverted to every opportunity and threat that "successful" search reveals." It is also a prerequisite for accurately changing operational capabilities, as noted by Cepeda and Vera (2007). The ability to assimilate market intelligence and enable its integration into the organization is a fundamental tenet of marketing dynamic capabilities (Barrales-Molina et al., 2014). Moreover, the foundation of sensing capacities is a favorable organizational environment and culture. This environment fosters communication among members of an entrepreneurial team, particularly the adoption of actions that raise the likelihood of coming up with new concepts (Dyer et al., 2008).

2.2.4.3 Learning capabilities

Once a market opportunity is identified, it must be addressed with new products, which require a decision to revamp existing operational capabilities with learning, and new knowledge and skills (Teece, 2007). Learning capabilities have evolved along two themes. Both internal and external (Chen et al., 2012). The pursuit of knowledge outside the company, or externally focused learning, is founded on a wide-ranging search for information that enables businesses to adapt to unexpected changes. (Martin & Eisenhardt, 2000; Teece et al., 1997). On the other hand, internal learning, which entails creating and exchanging knowledge within a company, is predicated on a focused and in-depth search for knowledge within a certain field of expertise, permitting less varied and more definite outcomes in a setting that is generally stable. (Martin & Eisenhardt, 2000). In addition, there is a reciprocal two-way relationship between sensing and learning capabilities because learning enhances the ability of SME to detect new opportunities (Cohen & Levinthal, 1990; Zahra & George, 2002). Sensing and learning capabilities are distinct capabilities because sensing focuses on gathering new market intelligence, and learning focuses on using market intelligence to create new knowledge (Hurley & Hult, 1998).

Learning capability is defined as the ability to revamp existing operational capabilities with new knowledge. According to Zahra and George (2002) who developed absorptive capacity (learning) as a dynamic capability, the four underlying routines of the proposed learning capability are acquiring, assimilating, transforming, and exploiting knowledge. These routines relate to kindred terms in the dynamic capabilities' literature. First, acquiring knowledge relates to obtaining new knowledge (Cohen & Levinthal, 1990).

Second, assimilating knowledge relates to knowledge articulation (Zander & Kogut, 1995) and knowledge brokering (Eisenhardt & Martin, 2000). Third, transforming knowledge relates to innovative problem-solving (Iansiti & Clark, 1994), brainstorming (Pisano, 1994), and creative new thinking (Henderson & Cockburn, 1994). Finally, exploiting knowledge relates to pursuing new initiatives (Van den Bosch, Valverde, & De Boer, 1999), seizing opportunities with learning (Teece, 2007), and revamping operational capabilities (Grant, 1996). Cohen and Levinthal (1990, p. 131) suggest that learning helps groups become more proactive by enhancing their "creative capacity." Van den Bosch et al. (1999) further argue that learning facilitates reconfiguration and innovation. Therefore, learning is proposed as an enabler of reconfiguration by helping revamp existing operational capabilities (Zollo & Winter, 2002).

2.3 History of Government Support to SME in Sub-Saharan African

The historical developments of SMEs in African countries trace back to colonial eras when small businesses were dominated by black people (Abdullahi & Chembayi, 2025; Anyidoho & Kpessa-Whyte, 2023). After independence, most countries formulated policies supporting small business growth. Multinational companies owned by colonialists left these independent African countries that implemented unfavourable economic reforms. The Britton Woods Institutions comprising the World Bank and IMF sponsored the Structural Adjustment Programmes in African countries; including, Ghana, Nigeria, Uganda, Zambia and Zimbabwe (Konadu-Agyemang, 2000; Hartwell, 2011)

In the case of Ghana, the history of government support for SMEs began post-independence in 1957. Initially, the government focused on state ownership, limiting support for individual entrepreneurship (Muriithi, 2017). The military regime introduced privatization efforts, though poorly executed (Aryeetey & Ahene, 2005). The civilian administration then encouraged small business ownership through policies like the Aliens Compliance Order to promote Ghanaian-owned businesses but excluded foreign entrepreneurs (Bamfo, 2013; Adjepong, 2009). In 1983, the government launched the Economic Recovery Programme (ERP) under World Bank and IMF guidance. While the ERP aimed to restore economic productivity, critics argued it failed to transform the economy, leaving Ghana reliant on agricultural exports (Boafo-Arthur, 1999). To address

ERP imbalances, the government established the National Board for Small-Scale Industries (NBSSI) in 1985 under Act 434 (Mensah, 2004). Other initiatives included the Private Sector Advisory Group, equipment leasing programs, and a Mutual Credit Guarantee Scheme for entrepreneurs with limited bank credit access (Quartey, 2001).

In the 1990s, the government introduced the Business Assistance Fund (BAF) to provide credit to SMEs, later replaced by the Export Development and Investment Fund (EDIF) targeting textiles, wood processing, and food processing (Osei-Assibey, 2010). In 2004, the government established the Venture Capital Trust Fund (VCTF) to provide long-term financing to SMEs, with $25 million initial endowment to support SMEs and promote venture capital (Divakaran et al., 2018; Boadu et al., 2014). Recently, the government created the Microfinance and Small Loans Centre (MASLOC) to provide microcredit to small-scale entrepreneurs. However, MASLOC faces challenges, including high default rates and loan recovery issues (Fobih & Adom, 2017; Quartey & Abor, 2010). Despite these efforts, government support remains inconsistent and underfunded, limiting its impact on SME growth (Zaato et al., 2022).

2.4 Government Support Mechanisms and Their Impact on SME Performance.

Government Support and its impact on of SMEs has drawn considerable attention. Multiple policies at the local, regional, and national levels are used by the government to foster SME business. (Jayasekara & Thilakarathna, 2013; Kraja et al., 2014; Park et al., 2020). The government's encouragement of SME has some justification. This justification considers the following: (a) SMEs facing cost disadvantages due to their small size, (b) they are being biased against as a result of market failures and have limited development capabilities. Furthermore, local governments are particularly involved in the creation and implementation of programs promoting SME because of their proximity to their activities in their localities. Existing literature on the relationship between government support and SMEs suggests that there are two motivating factors which lead governments to support SMEs. First, the creation of positive externalities suggests government support for investment in research and development. Second, government information to financial institutions and potential investors about SMEs reduces information asymmetry (Pu et al., 2021).

Governments Support to SMEs in a number of ways, such as tax exemptions, loans, financial support, social services and the reinforcement of the legal framework (Wilson et al., 2012; Xiang & Worthington, 2017). According to Burt, (2000), businesses that have strong external networking can easily obtain a variety of resources, many of which are advantageous for gaining a competitive edge. Meanwhile, businesses in developing economies have a stable and competitive edge over rivals with uncommon and distinctive resources, according to Barney, (1991) resource-based viewpoint theory. In addition, Sheng et al., (2011) pointed out that in order for developing economies to become competitive over the long run, they need government incentives. Government development programs and incentives therefore have a significant effect on SME's performance.

In Ghana, there have been government initiatives and policies to SMEs like the free training service to improve the human resources capabilities of SME operators (Zaato et al., 2020; Appiah et al., 2019). It has encouraged lending with more lenient (soft) repayment terms and lower interest rates, with direct interventions to offer subsidies in credit facilities or guarantees that can be managed either by commercial banks or by a government agency specifically tasked with assisting SMEs and/or a given industry (Haselip et al., 2014). Recognizing the significant benefits that SMEs bring to the economy, the role of governments in nurturing and supporting their activities becomes indispensable for their sustained survival (Gligah & Zaidin, 2023; Kraja et al., 2014; Veronica et al., 2020; Alkahtani et al., 2020).

Governments offer a range of support services for SMEs in a country. These include provisions of technology information, financial support, managerial training programs, the reduction of administrative costs and burdens for SMEs, the creation of networks across sectors and borders, financial incentive and assistance provisions, and a strengthened legal framework (Doh & Kim, 2014; Wilson, 2007). To provide government support, SMEs must know how and where to find fundamental information. Thus, it is crucial to have a larger pool of SMEs that want to have information for their business decision. Public institutions also have a significant role in shaping attitudes and motives by disseminating information and offering rewards to foster a culture that can positively support the development and maintenance of an entrepreneurial environment. Most governments in the world are focused on supporting the development of the SME sector,

to have a stable economy (Kraja et al., 2014; Butler, 2008). The interventions through business support can improve the performance of SMEs and construct jobs in low- and middle-income countries (Feranita et al., 2020; Veronica et al., 2020; Cravo and Piza, 2018).

According to numerous studies, government initiatives like public loan guarantees and R & D subsidies will promote business expansion and activities that are in line with the goals of this SMEs strategy. According to the findings of the Tsuruta study from 2018, SME policy can be crucial in preventing market failure. However, the SME policies implementation in Japan impeded firm growth. As a result, the government must exercise caution while enacting several onerous policies to aid SMEs. For instance, partnerships between the government and SMEs are anticipated in India to raise the degree of expertise in the SME sector (Thiruchanuru, 2016). This can be accomplished by the government through the provision of finance for worker training programs for SMEs. Further examples can be cited in the case of a developed economy. In the UK, the coalition government wants to increase access to SMEs to public procurement (Loader, 2016). Besides SMEs in Europe and America, public acquisitions are progressively perceived as a strategic behavior of public administration because of the large number of resources consumed, as well as the important policy objectives that are to be promoted, including the objectives related to SMEs (Kidalov and Snider, 2011). Klonowski (2010) evaluates government assistance programs for SMEs in Poland and assesses the effectiveness of these programs in stimulating the development of the SME sector. The study shows that the Polish government support program is unstructured, fragmented, and not targeted. In addition, these programs do not meet the actual needs of the SME sector and are used poorly and there is a liquidity gap in financing the SME sector.

Government support initiatives assist small and medium-sized enterprises (SMEs) in overcoming financial and non-financial obstacles that impede business operations while enhancing their entrepreneurial practices. There is a major role for financial institutions. Grimmer et al. (2017) discovered, utilizing the R-A theory, that SMEs performed better when they had access to financial support. Financial support can play a role in SMEs' long-term survival and growth since it enables them to take entrepreneurial efforts in search of advantages. Meanwhile, SMEs are frequently financially limited. (Nakku et al., 2020).

The government also set up an Investors' Advisory Council in 2001 of 20 business local and international leaders. In 1995, the Free Zones Act (Act 504) was enacted with the establishment of the Ghana Free Zones Board. The Ghana Free Zones act gives incentives to firms exporting more than 70 percent of their annual production and the Ghana Free Zones Board (GFZB) promotes the processing and manufacturing of goods. Goods from the Free Zones are exempt from customs duties. Incentives for Free Zone companies include a 10-year tax holiday that is 0 percent income tax and a guaranteed 8 percent income tax after the tax holiday. Total exemptions from withholding tax from dividends and relief from double taxation for foreign investors/employees are incentives enjoyed within the free zone. Also, no import licensing is required, 100 percent foreign ownership is permitted, no restrictions on foreign exchange accounts and repatriation of profits. Most firms operating within the Free Zones benefit from many other incentives and preferential market access, mainly to the EU. The Free Zones Act indeed allows exporting firms Free Zone status, even outside the zone. A UNCTAD (2002) survey found that, while satisfied with Free Zone benefits, investors identified the need for improvement in technology, education, credit access, and tax incentives. UNCTAD (2002) concludes that "The focus on export incentives seems to have stifled attention to the importance of technology upgrading and human resource development".

In addition to the Free Zones, there is the Trade and Gateway Programme. The Ghana Trade and Gateway Programme is inter-sectoral and aims at making Ghana the preferred choice business destination in West Africa. The program involves advising such agencies as the Customs, Excise, and Preventive Service (CEPS), Ghana Immigration Service (GIS), Ghana Civil Aviation Authority (GCAA), Ghana Ports and Harbours Authority (GPHA), Ghana Investment Promotion Council (GIPC), Ghana Free Zone Board (GFZB) and the Environmental Protection Agency (EPA) to offer more courteous, friendly and business-like services devoid of bribery and corruption to reduce the cost of doing business in Ghana. The strategy is to attract a mass of export-oriented firms into Ghana to facilitate export-led growth.

Table 3: Episodes of Government Support Initiatives to SMEs in Ghana, Under Various Governments

Program Name	Year of Initiative	References	Intended Purpose(s)	Achieved / Not Achieved
Industrial Development Policies (Nkrumah Era)	1957–1966	(Ackah et al., 2016). (Mensah, 2023)	Promote industrialization and SME growth through state-led enterprises and credit schemes.	Partially achieved – industrial base created but collapsed after political instability.
NBSSI (National Board for Small Scale Industries)	1981 (formalized in 1985)	Fobih & Adom (2017); Zaato et al. (2020)	Provide training, advisory services, and financial support to SMEs.	Achieved in training & advisory, but financing gaps persisted.
MASLOC (Microfinance and Small Loans Centre)	2006	(Oduro-Ofori et al., 2014)	Offer microloans and soft credit facilities to SMEs and microenterprises.	Partially achieved – improved access to finance but criticized for politicization and repayment challenges.
Youth Enterprise Support (YES)	2014	(Owusu et al., 2016) (Ackah & Boadu, 2025)	Support youth-led SMEs with funding and mentorship.	Limited achievement – funding disbursed but sustainability issues noted.

NEIP (National Entrepreneurship and Innovation Programme)	2017	Ackah & Boadu, 2025)	Provide training, mentorship, startup incubation, and funding to entrepreneurs.	Achieved in training & incubation, ongoing challenges in scaling businesses.
GEA (Ghana Enterprises Agency, formerly NBSSI)	2020 (Act 1043)	(Fobih & Adom, 2017)	Expanded mandate to coordinate SME development nationwide, including BizBox and SME Growth & Opportunity Programme.	Achieved – stronger institutional framework, though financing gaps remain.
SME Growth & Opportunity Programme	2024	(Agarwal et al., 2025); (Dzreke & Dzreke, 2025)	Targeted financial and technical support to high-growth SMEs, implemented with EXIM Bank and Development Bank Ghana.	Ongoing – early evidence of improved financing and technical support.

Other government supports are the Legal Instruments, and Acts in Support of Business Development (Aryeetey, E., & Ahene, A. A. (2005). The operations of companies in Ghana are governed by the Companies Code 1963. Provisions under Act 179 allow foreign firms to register a place of business. The public must be allowed under this Act, to subscribe to the shares of registered foreign firms in Ghana. The Partnership Act 1962 (Act 152) and the Business Name Act, 1962 (Act 151) make provisions for partnership and Business Name (Sole Proprietorship) formation respectively in Ghana. The Ghana Investment Promotion Centre (GIPC) Act, 1994 (Act 478) provides for international arbitration in disputes, and for technology transfer agreements to be legally effective, they must be negotiated with GIPC. Investment in all the sectors of the economy, other than mining, petroleum, free zones, and portfolio investments cannot be established without prior approval by GIPC. Mining and petroleum sector projects have to be approved or licensed by the Minerals Commission and the Ministry of Mines and Energy respectively. The Ghana Free Zones Board administers free-zone operations whilst the Ghana Stock Exchange handles portfolio investments. It is required by law for all foreign investors intending to invest in Ghana to register under Act 478 on GIPC. Ghana's Capital Investment Act 1963, the 1973 Investment Decree, and Investment Code already incorporated fiscal incentives for investors. The incentives are tax holidays in the form of 5-10 years by sector, higher for rural banks and agriculture, accelerated depreciation allowances of 5-20 percent on plant/machinery, by sector, exemptions from import duties on machinery and equipment, investment allowances and arrangements for profit repatriation. There are location incentives, which favor small start-up businesses in Ghana. While full taxes apply to businesses located in urban areas, those set up in rural areas and district capitals may enjoy concessions under the Internal Revenue Act 592 (Industrial Concessions). Manufacturing industries located in regional capitals other than Accra and Tema enjoy a 2 percent rebate, customs duty and income tax exemptions, and other inducements. The Commissioner of the IRS has the power to give other incentives to businesses when it is requested and deemed fit. Capital expenditure on R&D was tax deductible.

Moreover, Policy papers issued by the government in support of the sector comprise The Investment Code 1985 (PNDC Law 116), the Export and Import Act, 1995 (Act 503), the draft Integrated Industrial Policy for Increased Competitiveness (MOTI, Nov 2000), the

Draft Policy Paper on Micro and Small Enterprise Development (May 2002), the Ghana Poverty Reduction Strategy Paper (2002-2004); and the Policies, Strategies and Action Plan (2002-2004) by the Ministry of Private Sector Development. In addition to these, several "President's Special Initiatives" (PSI) on garments, textiles, and cassava starch have been established since 2001. These measures are aimed at boosting the production of these products for export. The PSI on garments and textiles is targeted at the USA market, taking advantage of various protocols offered by the Africa Growth and Opportunities Act (AGOA), while the initiative on cassava starch for industrial use is aimed at EU countries. The PSI is expected to inject over US$ 3 billion into the economy in export revenue and provide thousands of jobs over the next 5 years.

2.4 Firm Performance

Most companies are seeking to improve their performance in any way possible. The winning card can be held by those who endeavor to innovate, obtain, and sustain performance. Thus, competing in a continuously changing environment is very necessary to comprehend and monitor performance. Therefore, assessing the performance of organizations has always been of interest to management teams and researchers. In addition, measuring business performance in today's economic environment is a critical issue for academic scholars and practising managers. Researchers have extended efforts to determine measures for the concept of performance. In this regard, there is an incomplete literature and an on-going debate on the issue of firms' performance.

Furthermore, firm performance has become a relevant concept in strategic management research and is frequently used as a dependent variable. Although it is a very common notion in the academic literature, there is hardly a consensus about its definition and measurement. However, due to the absence of any operational definition of firm performance upon which most of the scholars' consent, there would naturally be diverse interpretations suggested by various people according to their personal perceptions. The overview of the concept is discussed below.

2.4.1 Firm Performance: An Overview

In the works of Taouab & Issor, 2019, he described the effort that was made to provide the various definition of firm performance starting from the 1950, where various understandings were ascribed to what the term meant. Below is the table that captured the

chronology of how the term was defined to the end of the last decade of the twentieth century.

Table 4: Studies of firm performance from 1950 to the last decade

Studies of performance by various author since 50's	Definitions
Georgopoulos & Tannenbaum, 1957).	firm performance was defined in various era from the 1950s as a degree to which an organization, as a social system with some limited resources meant to achieve its goals without an excessive effort from its members. Therefore, the criteria to assess performance was productivity, flexibility and inter organisational tensions.
Yuchtman & Seashore, 1967).	Later in the 60s and 70s, organizations began to explore new ways to evaluate their performance. During this time, performance was defined as an organization's ability to exploit its environment for accessing and using the limited resources
Price (1968)	*Price (1968)* considers that performance is synonymous with organizational effectiveness, and identifies as appreciation criteria: productivity, conformity, and institutionalization
Moh (1972	*Moh (1972)* identifies the following as the criteria for evaluating performance: productivity, flexibility, and adaptability.

Harrison (1974)	*Harrison (1974)* defines performance as the outcome of evaluating effort
Lupton (1977)	*Lupton (1977)* treated the notion of organizational performance in the most careful and clear manner in comparison with other researchers in the same period
Katz and Kahn (1978),	According to *Katz and Kahn (1978),* the effectiveness and efficiency of an organization were similar, and both were crucial components of the global organizational performance, which can be assessed through maximizing the entire returns of all kinds.
(Porter, 1986). Robbins (1987	In the 1980s, the firm performance depended on its ability to create value for its clients *(Porter, 1986). Robbins (1987)* defined performance as the extent to which an organization, as a social system, could consider both its means and ends.
Cherrington (1989)	*Cherrington (1989)* considered performance as a concept of success or effectiveness of an organization, and as an indication of the organizational manner that it is performing effectively to achieve its goals successfully
, *Adam (1994)*	During the following decade, *Adam (1994)* considered organizational performance as deeply dependent on the employees'performance quality. He believed that in order to guarantee a high-quality organizational performance, it is essential to have regular exposure of the workers of the company to new and up-to-date knowledge and skills, which would, in turn, help them keep up with the new changes happening in the

	market, and, ultimately, increase the quality of organizational performance. *Cohen (1994)* puts the notice of identity between performance and efficiency, following the results obtained by the entity in relation to resources used
Bourguignon (1997)	*Bourguignon (1997)* assimilates performance with an "action", with a certain "behaviour" (in terms of a dynamic view, meaning, "to perform") and not just as a "result" (in terms of a static view).
Harrison and Freeman (1999)	*Harrison and Freeman (1999)* confirmed that an effective organization with high standard of performance level is the one that keeps the demands of its stakeholders satisfied. However, From the First Decade of the Twenty-First Century In the first decade of the twenty-first century, the definition of organizational performance principally focused on the capability and ability of an organization to efficiently exploit the available resources to achieve accomplishments consistent with the set objectives of the company, as well as considering their relevance to its users *(Peterson, Gijsbers, & Wilks, 2003)*
	Verboncu and Zalman (2005) appreciated that performance is a particular result obtained in management, economics, and marketing that gives characteristics of competitiveness, efficiency, and effectiveness to the organization and its structural and procedural components.
Lebans *and Euske (2006),*	Other recent definition of performance was further advanced. These authors are, according to Lebans *and*

	Euske (2006), provided a set of definitions to illustrate the concept of organizational performance. These concepts are: (1). Performance is a set of financial and nonfinancial indicators that offer information on the level of accomplishment of objectives and results. (2). Performance is dynamic, requiring judgment and interpretation. (3) Performance may be illustrated by using a causal model that describes how future results can be affected by current actions. (4). Performance may be understood differently depending on the person involved in the assessment of the firm performance.
Siminica (2008)	To define the concept of performance, it is necessary to know its fundamentals characteristics to each area of responsibility. To report a firm's performance level, it is necessary to be able to quantify the results. *Siminica (2008)* appreciates that a firm is performant when it is at the same time efficient and effective. Therefore, the performance is a function of two variables, efficiency, and efficacy. Also, *Colase (2009)* considers the word performance as a bag-word because it covers various and different notions such as growth, profitability, return, productivity, efficiency, and competitiveness and *Bartoli and Blatrix (2015)* believed that the definition of performance should be achieved through items such as piloting, evaluation, efficiency, effectiveness, and quality

Source: (Taouab & Issor, 2019)

2.4.2 Performance and Its Components

There are a wide range of factors that can affect how well a firm performs, and there is no single model that can be applied to all firms or a particular class of firms (Costa et al., 2021; Vieira et al., 2019). Additionally, a number of performance proxies may be used.

These substitutes are often divided into two categories: accounting-based metrics and market-based measurements. Financial statements are used to create accounting-based proxies, which provides a historical perspective of the firm's performance. These metrics, such as return on assets (ROA) and return on equity (ROE), illustrate how effectively a company generates profits when compared to its total assets or total equity, respectively (Miralles-Marcelo et al., 2014). However, due to accounting legal norms, these variables vary by country (Vieira et al., 2019). Market-based indicators, which are forecast measures, are related to investors' perspectives and depend on their expectations (Miralles-Marcelo et al., 2014). The MTBV (market to book value) and Tobin's Q (TQ) are two examples of these proxies. However, in order to meet the objectives of investors, managers' decisions and practises for managing earnings can have an impact on these metrics (Rhoades et al., 2001). There are additional more variables that can be employed while attempting to explain performance. It can be categorised into macroeconomic determinants, firm-specific features, and corporate governance characteristics (Vieira et al., 2019).

According to Fama and French (1992), Miller et al. (2007), Villalonga and Amit (2006), and Martinez-Alonso et al. (2020), the most common factors used to explain performance are those peculiar to the firm. Examples of this kind of factor include, among others, liquidity, leverage, business size, and age. Managers select these factors, which describe the business and its operations. Corporate governance factors typically have an impact on a firm's decision and, consequently, its success (Vieira, 2018). But less research has been done on how these factors affect a firm's performance. According to Aldamen et al. (2020), effective performance practises involve more transparency, better decision-making, less uncertainty, and superior performance since they are family-owned and long-term oriented.

Finally, earlier studies demonstrate the value of macroeconomic factors in predicting firm performance (Issah and Antwi, 2017). External shocks during recessionary periods have a significant impact on a firm's performance since revenues and liquidity typically decline, uncertainty rises, and risks for the company grow (Aldamen et al., 2020). As a result, operating a company during a recession differs from doing so during an upturn.

2.5 Small and Medium-sized Enterprises (SMEs)

A notable development in the mid to late part of 1970 increased attention of authors and scholars to the small business sector. The first publication by birch 1979 paper titled “the job generation process” highlighted the contribution of small and medium size Enterprises (SME’s), contrary to the public focus of government and academic publication of larger corporation for job creation. This shift in publication and concerns led into the proliferation of publication which resulted in a decade of research into the subject of SME. This surge in interest highlighted SMEs as a global phenomenon, proving to be a crucial driver of economic development in nations across the world (Mac An Bhaird, 2010).

2.5.1 Definitions of SME

Definitions abound on SME based on the heterogeneous way the phenomenon is observed by researchers concerning the nuances attributed to SME in different perspective. one of the earliest definitions and most detailed attempt to devise a definition to SME was by Bolton committee (1971). in an attempt by the committee). In attempting to account for the heterogeneity and diversity of firms in the sector, both economic and statistical aspects of SMEs were combined in an all-encompassing definition. The economic definition specified that a firm should have three characteristics for SME: (1) a relatively small share of the market, (2) be managed by its owners in a personalised way, and not through a formalised management structure, and (3) be independent and have owner-managers free from outside control in making their decisions. furthermore, the committee adopted a statistical definition which is varied according to the sector. the committee adopted an employees’ upper limit of 200 for manufacturing sector and a series of more or less arbitrary definition in terms of whatever measures appears appropriate for other trades. The official European Commission (EC) definition of SMEs takes account of three different factors (i.e. level of employment, level of turnover, and size of the balance sheet). However, the data in this report are based only on the employment definition, since this is the definition used by the Structural Business Statistics (SBS) database maintained by Eurostat, the main data source for the report. (Muller et al., 2015; Quagli & Paoloni, 2012; Toomsalu et al., 2019)

Even though researchers in the European context generally employ the definition formulated by the European Commission (2003), these parameters are not adopted by researchers worldwide. The Small Business Administration (SBA) in the US, for example, classifies small business size standards by North American Industry Classification System Codes (NAICS). Size standards are determined by two measures: annual receipts in millions of dollars, or number of employees. Whilst there are differences depending on NAICS code, a commonly used measure is an upper limit of 500 employees (Berger and Udell 1998). Further diversity in definitions is observed in other countries. For example, in Australia a small firm is variously defined as having up to 20 employees in the services sector, but up to 100 employees in the manufacturing sector. Consequently, it is difficult to make precise international comparisons employing country-specific studies.

In Ghana however, the 1992 study by the Ghana Statistical Service revealed that nearly 93 percent of all registered businesses in Ghana are of the SME category. The National Board of Small-Scale Industries (NBSSI) defines SMEs as enterprises that employ no more than 29 workers, with investment in plant and machinery (excluding land and building) not exceeding the equivalent of $100,000. Small enterprises in Ghana are said to be a characteristic feature of the production landscape and have been noted to provide about 85% of manufacturing employment of Ghana (Steel and Webster, 1991; Aryeetey, 2001). SMEs are also believed to contribute about 70% to Ghana's GDP and account for about 92% of businesses in Ghana. Again, from an economic perspective, however, enterprises are not just suppliers, but also consumers; this plays an important role if they are to position themselves in a market with purchasing power: their demand for industrial or consumer goods will stimulate the activity of their suppliers, just as their own activity is stimulated by the demand of their clients. Demand in the form of investment plays a dual role, both from a demand-side (with regard to the suppliers of industrial goods) and on the supply-side (through the potential for new production arising from upgraded equipment) (Berry et al., 2002).

2.5.2 Characteristics of SMEs Business in Ghana

In Ghana, Small and Medium-sized Enterprises (SMEs) can be classified into two main categories: urban and rural enterprises (Ackah & Vuvor, 2011). Urban enterprises can further be divided into two subgroups: 'organised' and 'unorganised' enterprises. The

'organised' ones typically have registered offices and employees, and they are mostly owned by individuals. On the other hand, the 'unorganised' ones consist mainly of artisans who work in open spaces, temporary wooden structures, or even from home. These unorganised enterprises often have few or no salaried workers, relying mostly on family members or apprentices for assistance.

In contrast, rural enterprises are primarily composed of family groups, individual artisans, and women engaged in food production from local crops. The activities within this sector span various areas, including soap and detergents, fabrics, clothing and tailoring, textile and leather, village blacksmiths, timber and mining, bricks and cement, beverages, food processing, wood furniture, electronic assembly, agro processing, chemical-based products, and mechanics (Liedholm & Mead, 1987; Osei et al., 1993) as cited by (Kayanula & Quartey, 2000). One characteristic of this sector is the relatively low levels of education and training among the self-employed. These businesses are often family-owned, and there is little separation between the business finances and the personal finances of the owners, to the extent that their personal accounts are often used interchangeably with the business accounts. SMEs in Ghana form a diverse group, ranging from small workshops producing furniture, metal parts, and clothing to medium-sized manufacturers of machinery, as well as service providers like restaurants, consulting firms, and computer software companies. Some SMEs are content to remain small and serve as traditional 'livelihood' enterprises, while others are more growth-oriented and innovative in their approach.

2.6 Research Hypothesis

The research hypotheses were formulated based on the literature reviews. The following hypotheses were presented individually to represent each of the variables under study. These constructs were: entrepreneurship orientation, dynamic capability, firm performance, government support, and SME businesses in Ghana.

1) H1: Innovation has a significant effect on Firm Performance

Innovativeness is one of the fundamental instruments of growth strategies to enter new markets, increase the existing market share, and provide the company with a competitive edge. Motivated by the increasing competition in global markets, companies have started to grasp the importance of innovation, since swiftly changing technologies and severe

global competition rapidly erode the value added of existing products and services. Thus, innovations constitute an indispensable component of corporate strategies for several reasons such as applying more productive manufacturing processes, performing better in the market, seeking a positive reputation in customers' perception, and as a result gaining sustainable competitive advantage. (Gunday et al., 2011). Many studies focusing on the innovation-performance relationship provide a positive appraisal of higher innovativeness resulting in increased corporate performance (Hull & Rothenberg, 2008; Garg et al.,2003; Olson and Schwab, 2000; Du and Farley,2001; Calantone et al.,2002) this research was testing the hypothesis to establish a new ones pertaining to how innovativeness influences firm performance. Therefore, the researcher hypothesized that, there are positive Impacts of innovations on firm performance.

2) H2: Risk Taking has a significant effect on Firm Performance

In taking a risk, the firm shows the willingness to change from a predictable situation to a situation where it can seize opportunities and make commitments; often when the outcome is highly unpredictable (Kreiser & Davis, 2010). Previous research has shown that changing the level of risk-taking may be detrimental to corporate performance (Covin & Slevin,1991; Miller & Friesen, 1982), while others argued that contingent rather than direct relationships can be a more accurate explanation of corporate performance (Naldi et al., 2007). In either way, most research findings have conclusively indicated that the relationship between risk-taking and corporate performance has been established. (Thi Pham & Thi Dao, 2022). Risk-taking on firm performance has a reflection of the pursuit of a bigger goal on the size of the company and its impact on an increased firm performance (Arrfelt et al., 2018). Therefore, there is a significant effect of risk-taking on Firm Performance

3) H3 proactiveness, has a significant effect on Firm Performance

Schulze et al., 2022 state that, firms with a proactive orientation tend to have a strong tendency toward mastering cutting-edge technology in their pursuit of innovations that fundamentally alter the market (Han et al., 2001). Technologies can serve as means to improve processes, or they can serve as core ingredients for product innovations. It is often technologically superior products that are innovative and offer new value to customers. Firms with a high proactive competitor orientation tend to acquire new technological knowledge and deploy cutting-edge technologies to offer innovative products with unique benefits (Atuahene-Gima et al., 2005). Further, these firms allocate

capital and resources to proactively develop, adopt and deploy the latest technology which they then use to excel in innovation, develop products and services that are novel and provide exceptional value to customers (De Luca, Verona, & Vicari, 2010; Gatignon & Xuereb, 1997; Zhou et al., 2005).

Proactive competitor-oriented firms believe that predicting future competitive behaviour and changing their competitive environment to their benefit provides them a competitive advantage. Most obviously, such firms' posture is to forge ahead by creating and capturing new markets before competitors or to elicit new customer preferences that effectively create new marketspaces (Kiss et al., 2022). Therefore, there is proactiveness affects firm performance.

4) H4 competitive aggressive has a significant effect on Firm Performance

One way to distinguish between firms with respect to strategic postures is to examine the aggressiveness with which they exploit their resources (Cheng & Kenner, 1997; Chen, Lin, & Michel, 2010). Aggressiveness examines a firm's strategic posture relative to the deployment of resources to functional areas over time (Fombrun & Ginsberg, 1990). The consistency of resource deployment creates distinctive competencies and defines synergies created by a firm, thereby influencing its competitive posture (Porter, 1980). In essence, the aggressive nature of firms strategically deploying these resources and how these actions impact firm performance constitutes an *a priori* approach to strategic aggressiveness. (Weinzimmer et al., 2023). Collectively, the empirical evidence supports the following hypothesis that competitive aggressive has a significant effect on Firm Performance

5) H5 autonomy has a significant effect on Firm Performance

In simple terms, autonomy is described as independent activity taken by a person or group with the goal of developing and realizing a business idea or vision. (Lumpkin, G. T., & Dess, G. G. 2001) Many academics, including Cogliser and Schneider (2009), Lumpkin and Prottas (2008), and Coulthard (2007), suggest that granting autonomy to every member of an organization can inspire and promote entrepreneurial behavior, hence enhancing firm performance. Furthermore, Storrud-Barnes, and Javalgi (2017) show a positive correlation among autonomy and firm performance. As a result, we hypothesis that autonomy has a significant effect on firm performance.

6) H6: Sensing Capabilities has a significant mediating role between innovativeness and Firm Performance

Many works of literature stated that sensing capability is part of leaning or knowledge-related resources (Ardyan, E. (2016). Firms can better meet a variety of market demands than competitors by launching innovative products and services quickly (Parida et al. 2017). Also, businesses that use tools to scan and gather market intelligence can improve their innovativeness and firm performance (Najafi-Tavani et al. 2016). Innovative firms have an open-minded culture that inspires, supports, and gives employees the freedom to develop original concepts, procedures, and methods. In this way, sensing capability practices show how organizations seek knowledge and this activity entails combining old and new knowledge for creative combinations when generating new products and services, as well as expanding market size and audience (Bayighomog Likoum et al., 2020). Based on this reasoning, we can hypothesize that Sensing Capability has a significant mediating role between innovativeness and Firm Performance

7) H7: Sensing Capabilities has a significant mediating role between risk-taking and Firm Performance

Firms must be able to effectively sense changes in the environment and adapt its resource base. The firm's ability to adapt to changes in the environment, including competitive analysis, will have a favourable effect on redefining its marketing and technological competencies, which will result in the redefining and renewal of its product line. (Rehman & Saeed, 2015) In addition, a firm's organizational structure has an impact on how flexible it is and how sensitive it is to environmental changes. More so, if the businesses are brave enough to take risk in the changing business environment, we can hypothesis that, sensing capacity has a significant mediating role between risk taking and firm performance.

8) H8: Sensing Capabilities has a significant mediating role between proactiveness and Firm Performance

Previous studies had explained that there is a direct relationship between sensing capability and firm performance (Tseng & Lee, 2014). However, the evidence is not fully consistent. there are studies that also explained the negative effects of sensing capability

and performance (Olavarrieta & Friedmann, 2008). The relationship between Sensing Capability and firm performance may be mediated by proactiveness if the logic is that firms are very quick to anticipate and solve problems associated with the existing products / services of the business. For instance, they might facilitate improved information cooperation and sharing, which is essential for enhancing the firms 'exiting services in the market (Elenkov, Judge, & Wright, 2005; Gaur, Vasudevan, & Gaur, 2011).

9) H9: Sensing Capabilities has a significant mediating role between competitive aggressiveness and Firm Performance

In contexts with rapid change, competitive aggression is more positively correlated with firm performance than in environments with slower change (Nadkarni et al., 2016) therefore sensing capability mediated role in the form of Continuous scanning for both internal and external business environments including internal R&D projects, market presence exploration and personal networks for improved competitive advantage. (Adim & Poi, 2021). Sensing capability increases the likelihood of finding new, valuable combinations of both current and new knowledge and enables it to quickly identify the new knowledge that is most important for the product development procedures (Zhang & Wu, 2013). Therefore, one is safe to hypothesise that, Sensing Capabilities has a significant mediating role between competitive aggressiveness and Firm Performance

10) H10: Sensing Capabilities has a significant mediating role between autonomy and Firm Performance

Autonomy embodies individuals' desire for freedom and control over their work (Lu et al., 2012) and is regarded as one of the hallmark traits influencing the entrepreneurship and firm performance. It conveys the felt ability to determine the nature of the task to independently arrive at a course of action. Individuals with a strong desire for autonomy are more likely to be motivated to exert the effort to enhance performance by engaging in continuous learning activities to develop their skills and abilities (Wilson, 2018). Sensing Capability mediates the role by the provision of an active search for new information, putting in place various process to gather, filter and make sense to competitive information from both inside and outside the enterprises. (Zhang & Wu, 2013; Tufa et al., 2021). Therefore, we can hypothesis that, Sensing Capabilities has a significant mediating role between autonomy and Firm Performance.

11) H11: Learning Capabilities have a significant mediating role between innovativeness and FP.

Learning Capability supports innovation by rising employees' creativity and enhancing their knowledge. Understanding innovativeness as a procedure that aims to pursue new methods of resolving problems enhances firm performance. (Hussain et al., 2018). Therefore, to influence FP, these capabilities must favor the development of Learning capability. In this way, a congruent development of process and learning Capability is achieved, resulting in improvement in FP. (Camisón & Villar-López, 2014). We can hypothesize that Learning Capabilities have a significant mediating role between innovativeness and FP.

12) H12: Learning Capabilities have a significant mediating role between risk-taking and Firm Performance

As learning capability revamps existing operational capability with new knowledge through the underlying routine of the proposed learning capability of acquiring, assimilating, and exploiting knowledge, SMEs might adopt a "me too" approach in which they imitate others already in the market to reduce business risk and the cost of innovation (Irjayanti & Azis, 2012) Additionally, Khandwalla (1977) discovered a stronger link between risk-taking and firm performance and he contends that in order to adapt to the perpetual state of change present in a dynamic environment, firms must take bold and risky decisions. we can hypothesize that there is a significant mediating role in between risk-taking and firm performance.

13) H13: Learning Capabilities have a significant mediating role between proactiveness and Firm Performance

We argue that Learning Capability fosters a company's business proactiveness by fostering employee creativity and knowledge improvement specifically through its: knowledge acquisition, knowledge distribution, and knowledge use (Chiva and Alegre 2009). For instance, it has been proposed by Hurley and Hult (1998) and Lemon and Sahota (2004) that when employees/members of a group are encouraged to learn and develop new ideas, they favor the implementation of new organizational methods and business models and incorporate new organizational strategies. We propose that the relationship between proactiveness and firm performance and learning capability has a

mediating role. In this situation, learning capability routine like acquiring, assimilating, transforming, and exploiting knowledge among members can have an effect on the firm performance. Therefore: we can hypothesis that: Learning Capabilities have a significant mediating role between proactiveness and Firm Performance

14) H14: Learning Capabilities have a significant mediating role between competitive aggressiveness and Firm Performance

Competitive aggressiveness conveys the intensity with which a firm chooses to compete and attempts to surpass competitors reflecting a bias toward outmanoeuvring and outdoing rivals. Aggressiveness can improve performance because the emphasis on out-doing and out-manoeuvring competitors strengthens the firm's competitiveness at the expense of rivals (Lumpkin and Dess, 1996). Examples of the manifestation of such an aggressive competitive strategy include aggressive price competition, market entry with a new or superior offering, fast following a rival into a market, continuously exploiting information, and using unconventional surprise tactics. (Hughes & Morgan, 2007) Such an emphasis on acquiring market share and customers by aggressively targeting rivals' weaknesses should improve performance because it undermines competitors' ability to compete and restricts the ability of competitors to anticipate and respond to what the aggressive firm will do next. we can therefore hypothesize that: Learning Capabilities have a significant mediating role between competitive aggressiveness and Firm Performance.

15) H15 Learning Capabilities has a significant mediating role between autonomy and Firm Performance

We contend that learning capability give businesses the ability to gather, analyze, translate, and apply the knowledge, skills, and attitudes of employees across the organization to create a capacity for collective learning. For example, autonomy (i.e., independent idea formulation and implementation) has supported the efforts of individuals and/or teams that work autonomously and decide for themselves what business opportunities to pursue on their own without constantly referring to their supervisor (Lumpkin and Dess (1996)

16) H16: Government Support has a moderating role in between Sensing Capabilities and Firm Performance

Firms can get a variety of support from their government including tax allowances, grants, loans, information technology, social support, productivity assistance and financial capital, and so forth. Pergelova & Angulo-Ruiz, 2014) examined the influence of government financial support (government equity, government loan, and guarantees) on firms' overall competitive advantage (innovation, marketing, licensing, human capital) and argued that government support has a significant direct influence on firms' competitive advantage while it has an indirect influence on performance. Therefore, Government Support has a moderating role in between Sensing Capabilities and Firm Performance

17) H17: Government Support has a moderating role in between Learning Capabilities and Firm Performance

Government support has been demonstrated to have a very positive impact on firm performance (Peter et al., 2018). Furthermore, financial, and non -financial support by the government has been discovered to have an impact on the competitive position of firm performance (Songling et al., 2018). Szeto and Kim (2018) contend that government-firm relationships can facilitate businesses' access to resources and boost their performance. According to Yi et al. (2013), there is a moderated relationship between government and performance especially in a market with high level of marketisation and leaning capabilities offers the processing for change and improvement. thus, having a learning capability makes it possible to recognize and act upon market cues more effectively, quicker, and even more affordably than rivals. (Prieto & Revilla, 2006). Therefore, we can hypothesis that, Government Support has a moderating role in between Learning Capabilities and Firm Performance

2.7 Theoretical Framework

The study leans on the Resource-Based View (RBV), and Resource Dependency Theory (RDT). RBV is an influential theoretical framework in understanding how a company's competitive advantage is achieved and how that advantage can be maintained over time

(Eisenhardt and Martin, 2000). RBV assumes that a company can be conceptualized as a collection of resources. These resources are distributed heterogeneously (not the same) throughout the company, and these differences can persist over time. RBV has led researchers to theorize that when a company has very valuable, rare, inimitable, and non-replaceable resources, the company can achieve sustainable competitive advantage. The achievement is through implementing new value creation strategies that cannot be easily achieved easily imitated by other companies (Eisenhardt and Martin, 2000; Piening, 2013).

In line with the constructs used in this research, RBV researchers have expanded the scope of the RBV to deal with a dynamic market share (Teece et al. 1997). Teece et al. (1997) mentioned that RBV has not adequately explained why and how a company could have a competitive advantage when facing a situation of rapid and unpredictable change. It is a situation where the competitive size has shifted, requiring companies to develop dynamic capabilities. Company managers integrate, build, and reconfigure their internal and external competencies to meet the changing organizational environment. In other literature, (Teece et al. 1997) also clarified again that for analysis, dynamic capabilities consist of (1) the capacity to sense and form opportunities and threats (sensing); (2) capacity to seize existing opportunities (seizing); and (3) the capacity to maintain competitiveness through enhancing, merging, protecting, and reconfiguring business assets, both tangible and intangible (managing threats/ transforming) (Teece, 2007, 2009).

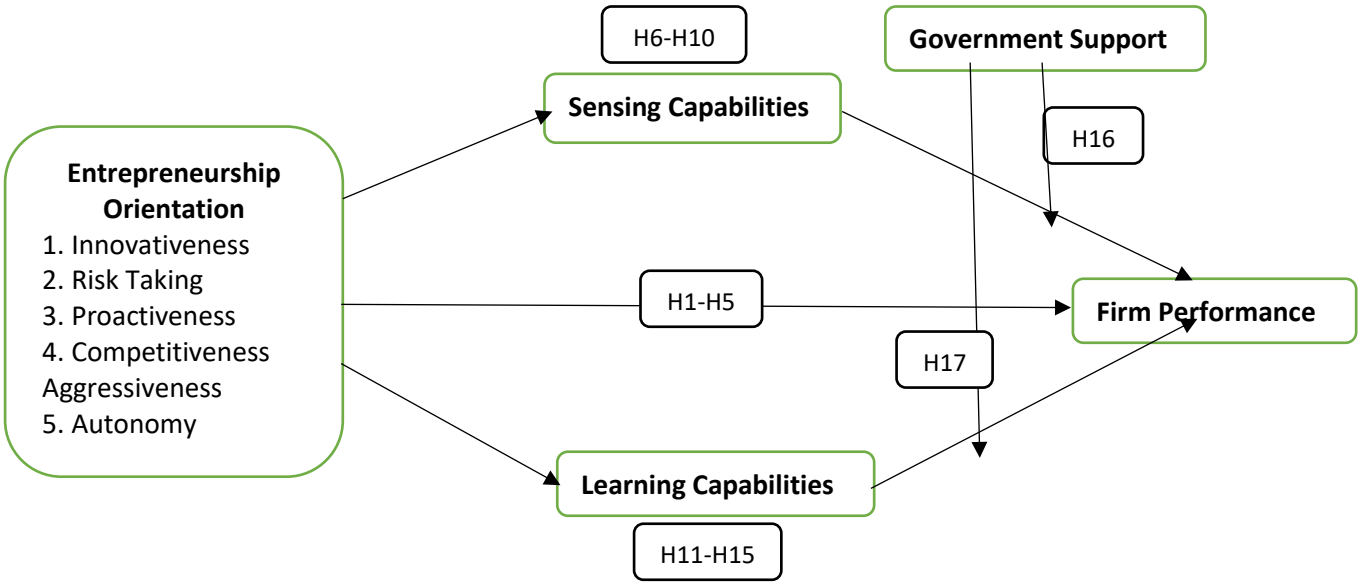
Furthermore, Barreto (2010) mentions that the approach to the concept of dynamic capabilities expressed by Teece et al. (1997) builds on several main elements that highlight the main theoretical foundations: nature, role, context, creation, and development, benefit outcomes, and heterogeneity. Barreto (2010) explained dynamic capabilities as the key abilities that help organizations adapt and thrive in a changing environment. These capabilities consist of six main elements. First, they highlight the importance of an organization's ability to manage its resources effectively. Second, they involve integrating and reconfiguring internal and external competencies to adapt to new challenges. Third, they focus on the rapidly changing organizational landscape. Fourth, they emphasize that dynamic capabilities are usually developed within the organization rather than purchased from outside. Fifth, they stress the importance of diverse resources and capabilities across the organization. Finally, the main goal of dynamic capabilities is

to gain a sustainable competitive advantage, whether by learning from mistakes or creating new value for customers. (Yudistira et al., 2022)

Another theory is that of resource dependency theory. According to the Resource Dependency Theory (Pfeffer and Salancik 1978), firms are intertwined with a variety of people and organizations in their surrounding environment. The firm's prospects of survival are influenced by its capacity to respond to structural factors, address external trends, and forge fruitful alliances with other organizations. Few businesses begin with total control over their resources; as a result, they must rely on resources from their surroundings (Pfeffer & Salancik, 1978). To access external resources, such as tangible and intangible assets, businesses engage with their surroundings. Through the social networks, there are exchanges with different organisations. Because of this, businesses must adapt to changing conditions and deal with unpredictability. According to Pfeffer and Salancik's (1978) idea, businesses rely on outside resources by establishing connections with networks or relationships in their surroundings. Furthermore, companies of all sizes need to depend on both internal and external resources to support their goods and services. Large companies have the financial resources to create or buy the necessary resources, whereas startups and small businesses do not sufficiently resources, so they rely heavily on external resources (Pfeffer & Salancik, 1978).

These theories lay a strong groundwork for comprehending how entrepreneurship orientation interacts with firm performance, using dynamic capabilities as a mediating variable. Applying these theories, the researcher endeavors to examine the impact of entrepreneurship orientation on firm performance and the mediating effect of dynamic capabilities (i.e.: sensing and leaning capabilities). Furthermore, these theories serve as a guide for investigating and analyzing the trends of dynamic capabilities, comprehend the overall picture of scientific research, and develop the research objective. Ultimately, this research aims to utilize these theories to fortify support for the research requestions and hypotheses in SMEs businesses in Ghana.

2.7.1 Model:



2.8 Summary of the Chapter

This study has reviewed Entrepreneurship Orientation (EO) as a concept and its historical development in research. It offered the historical antecedent of the dimension of the EO as proposed by the initiator of the constructs how other researchers had contributed to the growth of the concepts. it indicated that, over time, the field of entrepreneurship research went through different periods, including the economic era, the social science era, and the management studies era, with a focus on industrial dynamics and entrepreneurship. EO research has examined the behavior of entrepreneurial firms, highlighting traits like innovativeness, risk-taking, proactiveness, competitive aggressiveness, and autonomy that contribute to a competitive advantage. The popularity of EO can be attributed to the growing understanding of the significance of entrepreneurship in economic growth, the availability of resources, and localized interest in the phenomenon. However, there have been criticisms of EO research, with some arguing for a return to a stabilized conceptualization and consistency in definitions to facilitate knowledge accumulation. As EO research moves into new areas and applications, scholars are urged to think critically, develop new conceptualizations, understand the theoretical underpinnings, and create new measurement instruments. EO has potential applications in various contexts, and

researchers are exploring its relevance in non-profits and unit-level phenomena. Overall, EO remains a stimulating and interesting subject in academia, particularly in an increasingly uncertain and dynamic world where organizations need to adapt and thrive.

The next construct reviewed was Dynamic Capability, which refers to a company's ability to adapt and thrive in rapidly changing environments. The study of dynamic capabilities has gained significant interest due to the changing technology, society, and markets. However, there is a diversity of definitions for dynamic capabilities, which has led to some criticisms of the methodology used to study them. The theoretical frameworks of dynamic capability research encompass various sectors, including manufacturing, high-tech, consumer products, and more. The key dimensions of dynamic capabilities include sensing, learning, integrating, and coordinating capabilities. Sensing capabilities focus on acquiring market intelligence and identifying opportunities. Learning capabilities involve acquiring and assimilating knowledge to address market opportunities. Integrating capabilities combine individual knowledge into the unit's operational capabilities. Coordinating capabilities involve orchestrating tasks, resources, and activities to deploy the reconfigured operational capabilities. For small and medium-sized enterprises (SMEs), dynamic capabilities are crucial for survival and success, but they may face challenges due to limited resources. Thus, SMEs may need to focus on specific dimensions of dynamic capabilities, such as sensing and learning, to adapt and compete effectively in the changing environment. Overall, the concept of dynamic capabilities provides valuable insights into how businesses can stay competitive and resilient in a rapidly evolving world.

Moreover, government support was also reviewed as part of the constructs used in the research work. It discusses various support service provided to small and Medium Enterprises (SMEs) in a country to enhance their growth and development. These support services include technology information, financial assistance, managerial training, reduced administrative burdens, network creation, financial incentives, and a strong legal framework. The government's role is crucial in disseminating information and fostering a culture that supports entrepreneurship. Furthermore, Government initiatives like public loan guarantees and R&D subsidies have been shown to promote business expansion and align with SMEs' goals. However, caution is necessary in implementing policies to avoid hindering firm growth. Partnerships between the government and SMEs, as seen in other

jurisdictions and developed economy, can increase expertise in the sector through finance for worker training programs. In Ghana, the government has established the Ghana Free Zones Board and the Trade and Gateway Programme to attract export-oriented firms and facilitate export-led growth. Various legal instruments and acts, such as the Ghana Investment Promotion Centre Act, provide support for business development and foreign investment. The work also highlights the importance of financial support for SMEs' long-term survival and growth, given their frequent financial constraints. Overall, government support initiatives play a vital role in helping SMEs overcome obstacles and improve their entrepreneurial practices, contributing to a stable economy.

The concept of Firm performance and its measurement in strategic management research were reviewed. The definition and measurement of firm performance have been a topic of ongoing debate, leading to diverse interpretations among scholars. Various factors can influence firm performance, including accounting-based metrics and market-based measurements. Accounting-based metrics use financial statements to assess performance historically, while market-based indicators rely on investors' perspectives and expectations.

Lastly, Small and Medium-sized Enterprises (SMEs) and its significant economic development. Different countries and institutions use varied parameters, such as the number of employees, annual receipts, or level of turnover, to define SMEs. In Ghana, SMEs are a major part of the business landscape, contributing significantly to GDP and employment. They are classified into urban and rural enterprises, with the former further divided into organized and unorganized subgroups. Urban enterprises are typically registered with employees, while rural enterprises involve family groups and individual artisans engaged in various activities. Education and training levels among the self-employed in the rural sector are relatively low. Overall, SMEs play a crucial role in the global economy and are a diverse group of businesses with varying growth and innovation ambitions. Their impact on economic development is significant, making them a subject of interest for scholars and policymakers.

CHAPTER THREE
METHODOLOGY

3.0 Introduction

The primary goal of this study was to test the research questions and hypothesis that relate to Entrepreneurship Orientation (EO), Firm Performance (FP) Dynamic Capabilities (DC), and Government Support (GS) to SMEs in Ghana as stated in chapter one. Separate instruments to measure these variables were utilized to this end. The research aim is to investigate the relation between EO- FP, the mediation role of dynamic capability and the moderating role of government support to SME Businesses in Ghana. The methodology employed to test the research questions is presented in this chapter. The chapter is organized into four sections: (a) selection of participants, (b) instrumentation, (c) data collection, and (d) data analysis. (Phillips & Stawarski, 2008)

3.1 Selection of Participants

To test the hypothesis, data from the study was taken from the association of Ghana Industries (AGI) members and the Ghana Business Directory database. Some of the responders were also targeted using a Google form. To collect data for the study, we used a purposive sample as a mean to target and investigate the specialized population of about 350 SME business operators, who were into the SME businesses located in the central business district of major cities in Ghana (Frimpong et al., 2022; Akubia & Bruns, 2019; Kessey & Agyemang, 2013; Doe & Emmanuel, 2014; Gbeve, 2016). There was management involvement at the departmental or functional level for the success rate of the questionnaire. Managers were requested to distribute some of the questionnaire, some of the questionnaires were referred at staff meetings, follow ups were made to see whether the questionnaires were completed, or generally showed support for completing the questionnaire. Direct manager's support also caused some participants to respond to the data. Incentives were provided to participants for answering the questionnaires. Gift such as the mobile phone credit were loaded to participants were answered the online version of the questionnaire.

The sampling size was based on the following criteria (i) firms that have to be independent entities with no affiliation to any company group or chain (Boso et al., 2013; Wiklund & Shepherd, 2011); (ii) firms that were owned and controlled by individual or group of entrepreneurs (Goedhuys & Sleuwaegen, 2010); (iii) firms that employed a minimum of five and a maximum of 500 full-time workers (Boso et al., 2013; Goedhuys & Sleuwaegen, 2010; Wiklund & Shepherd, 2011); (iv) firms with a minimum of 5 years business operation experience (Morgan et al.,2012); and (v) firms that had the complete contact information of the founder for the chief executive officer (CEO) (Khavul et al., 2010). Structural Equation Modeling would be used for the analysis.

3.2 Instruments of the studies

For items to measure the key constructs to be examined, the current research relies on previous studies. All items will be tested using a Likert-like scale, with Cronbach's alpha values exceeding the recommended threshold and internal reliability (Huck, 2000; Hair et al., 2006). *Entrepreneurship Orientation* was adapted from previous works by the existing literature (Covin and Slevin (1989) *Firm performance*: indicators were adapted using past studies of the field of strategic management (morgan et al., 2009; Rezaei & Ortt,2018; Venkatraman and Ramanujam, 1987; Zacca et al., 2015). the Drongelen and Bilderbeek (1999) performance measure, which is one of the most often mentioned and validated scales was used. The scale enables measurement of R&D activity performance at several levels (team, individual, department, and firm). The scale was employed in this study to evaluate the effectiveness of each R&D activity at the firm level. Other instrument by Green et al. (2008) was also adopted to assess marketing and sales performance, and we use the instrument created by Gunasekaran et al. (2004) to measure production performance. Profitability and employment growth, which have been widely utilised in literature to measure company's overall performance, were employed to quantify overall performance (Keh et al., 2007). (See the Appendix 1 for a full list of items). Other instruments used in the measurement are dynamic capability (Pavlou & El Sawy, 2011; Teece et al., 1997). These include sensing capabilities, learning capabilities, integrated capabilities, and coordinating capabilities (Pavlou & El Sawy, 2011). Government support measurement was adopted from Shu et al.,2019; Li and Attuahene-Gima (2000)

Table 5: Adopted Research Instruments/ Key Constructs & Item

Constructs	Citations	Number Of Items/ Dimensions	Total Items
Entrepreneurship Orientation	Covin and Slevin (1989) Lumpkin and Dess (1996)	Innovativeness 6	
		Proactiveness 6 Risk-Taking 6 Competitive Aggressive 5 Autonomy 4	**27**
Dynamic Capabilities	(Pavlou & El Sawy, 2011) (Teece et al., 1997)	Sensing Capabilities *5*	
		Learning Capabilities *4*	**9**
Government Support	(Shu et al.,2019; Li and Attuahene-Gima (2000)	Government support for seeking financial resources 4	4
Firm Performance	(Rezaei & Ortt,2018) Arend, 2013) (Mahmood & Hanafi, 2013	Market and Sale P erformances 3	

	Dess et al., 1997)	
	Dess et al., 1997	
	Production Performance 3	**6**
Total:		**46**

3.3 Data collection

The research design implemented in conducting this study is outlined and explained with detail profile of the respondent firms. Three separate phases of data collection were included as part of this study: (a) The first phase of data collection included the administration of the online questionnaires to participants who represent important stakeholders of the Ghanaian economy. These are the Association of Ghana Industries, the Ghana Association of Banks (Blankson et al., 2022), the Private Enterprise Federation, the Association of Forex Bureau Operators, and the Association of Market Queens and Women (Scheiterle & Birner, 2023). These participants have been identified as being operators of entrepreneurship and SMEs organization in the country (Adjabeng & Osei, 2022). All participants filled out the same questionnaire. The response category took the form of rating scales (e.g., 7-point rating scales. Summated rating scales (i.e., Likert scale) were the most common (Tashakkori & Teddlie, 2003). the study participants were expected to indicate the degree to which they: (1) Strongly Disagree (2) Disagree (3) Somewhat Disagree (4) Neutral (5) Somewhat Agree (6) Agree (7) Strongly Agree with the viewpoint expressed in the statement of each of the adopted constructs in the study (sadan, 2017). (b) The second phase of the data collection employed field research officers who are university students with the printout of the questionnaires used for the visit to the locations where these participants can be found at their workplaces. The officers have been receiving online instruction for four (4) months in both core strategies on how to reach out to the targeted participants and guide them to answer the research questionnaires. This method speeds up the data collection processes by allowing us to handle the participants' concerns and address some of the issues they raised in the process. (c) The third phase of data collection included a mixture of both phases (a & b) of data collection. The researcher relied on the constant sharing and follow-up to the copies of the questionnaires shared with the participants. Also, during this phase, participants were

encouraged and assured of confidentiality as their company names or organizations would not be included in any summary information for the findings (Slater, 2001).

3.3.1 Sample Size

One of the key presumptions of covariance-based SEM is that a greater sample size is needed than with other statistical methods. SEM uses tests that are sensitive to sample size as well as the size of covariance matrix differences (Collier,2020). Nunnally and Bernstein's (1994) "rule of ten" is one of the most widely used recommendations for sample size. According to the "rule of 10," your model should have 10 observations for each indicator. Another rule of thumb, based on Stevens (1996), is that there should be at least 15 cases per indication. Bentler and Chou (1987), argued that a more accurate computation should be based on your model's free parameters, with at least 5 cases for each parameter estimate (including error terms as well as path coefficients). Accordingly, Schreiber et al. (2006) made the argument that it should be 10 participants for every parameter estimated. More recently, a "critical sample size" of 200 has been determined to be sufficient to test a model and to yield stable parameter estimates (Garver and Mentzer 1999; Hoelter 1983). While the 200-person required sample size makes things simpler, it ignores the concept of power. The effect size you want to capture, or, to put it another way, your capacity to capture the smallest correlation between latent variables that you intend to detect, should determine the size of your sample.

Because of the difficulties of researchers in highlighting the lack of up-to-date complete list of SMEs in the country, the frequent changes due to new entrants, and a substantial number of SME ceasing to trade within 3 years of start up, we endeavour to overcome the challenge by surveying firms on the basis of accessibility (Mac An Bhaird, 2010, P117). it is important to indicate that, there is no single publicly accessible register of businesses in Ghana as at the time of collecting data for this research. consequently, other efforts were made to source for complete list of businesses registered in Ghana through the government agencies which were futile.

3.4 Data Analysis

The study employed a quantitative methodology of data collection and data analysis using Structural Equation Modeling (STEM). The study will follow Hair et al. (2017) recommendations to validate the structural model. First, the researchers will look for potential collinearity among the following sets of (predictor) constructs:(1) Entrepreneurial Orientation (EO) as a predictor of Firm performance (2) The mediating effects of dynamic capability (DC) and the moderating effect of government support (GS) on firm performance. Furthermore, the reflective measurement model will evaluate the standard evaluation criteria, using Hair et al. (2017) which include: individual item reliability, internal consistency, and discriminant validity (individual factor and cross-loadings, Cronbach alphas, composite reliability, convergent validity (average variance extract or AVE), inter-construct correlations to show that the results of the measurement model meet the minimum requirement of a construct.

Furthermore, the *first* step in determining the reliability of first- and second-order constructs was to look at standard factor loadings or basic correlations between them with indicators of factor loadings of 0.50 or higher as a rule of thumb. (Hair et al., 2010; Hair et al., 2017). *Second*, the reliability of reflective constructs is evaluated using two widely used coefficients: composite reliability and Cronbach's alpha (Hair et al. 2017). Both first- and second-order reflective constructs' composite reliability and Cronbach's alpha should be greater than 0.70 (Nunnally, 1978), implying reasonable internal consistency and reliability. *Third*, convergent validity should be assessed by looking at the AVE, which should show how much variance a construct received from its indicators, compare to how much variance was due to measurement error (Fornell and Larcker 1981). *Fourth,* discriminant validity is a traditional approach alternative to convergent validity (Hulland 1999). the study will use the three common approaches to measure discriminant validity. other stages to be explored in the data analysis in AMOS are the mediation and moderation analyses.

3.4.1 Mediation

This research employed a multiple mediator model (i.e., sensing and learning capabilities), as specified in the study. AMOS provides a feature called "estimands" that will give you more freedom in the analysis of complex models and allow you to look at the individual interactions in a multiple mediator model. Syntax is the basis for the

estimands function. When numerous mediators are present, we are unable to examine a particular indirect effect using icons or drop-down menus. As a result, we are going to explore a particular indirect impact within a bigger model using the syntax-based estimands function. Besides. In testing the mediating variable in the model, the researcher would explore the use of a bootstrap technique to determine significance. the following mechanism would be undertaken during the bootstrapping processes. A 5,000 bootstrapping will be employed to increase the accuracy of predictions (the higher, the better) because of the larger sample of data considered for the analysis.

The following outcomes would be anticipated during the mediation analysis. A full mediation (also called indirect only mediation) where the direct effect between two constructs is non-significant, but an indirect effect through a mediator does have a significant relationship. Partial mediation is another form that mediation can take. This is where the direct effect between two constructs is significant, and so is the indirect effect through a mediator. Lastly, you can have complementary and competitive mediation. Complementary mediation is where the direct effect and the indirect effect have a similar influence in regard to directionality. For instance, the direct effect may a have positive influence, and the indirect effect has a positive influence as well. A competitive mediation is where you have different directionality between the direct effect and indirect effect. The direct effect might have a negative influence, but the indirect effect might have a positive influence. With this type of mediation, the presence of the mediator can change the directionality of the influence.

3.4.2 Moderators

Moderation is where the direct influence of an independent variable on a dependent variable is altered or changed because of a third variable. This third variable, called the "moderator", can influence the strength (and sometimes sign) of the relationship from the independent variable to the dependent variable. A moderator is said to "interact" with the independent variable to determine the influence on the dependent variable. Thus, you will hear the term "interaction" when testing for moderation where the combined effect of the independent variable and the moderator is examined (Collier, 2020). There are numerous ways to test for moderation using SEM. The first method I will discuss is the "interaction term" method. An interaction term is where you form a product term of the independent variable and the moderator. This interaction term will then let you know if the presence

of the moderator is significantly influencing the relationship from the independent variable to the dependent variable. for the purpose of the adopted moderator for this research (i.e., government support) which is a continuous variable, the interaction term method is the preferred option in moderation testing. It was recommended by Dawson 2014 that, to "mean center" is encouraged before data analysis. In testing for moderation, we need to mean center the independent variable and the moderator before we form the product term. To mean center the data, we first need to get the mean for the independent variable and moderator using SPSS.

3.5 Summary of Chapter Three

This chapter restated the purposes of the research questions and hypotheses which related to Entrepreneurship Orientation (EO), Firm Performance (FP) Dynamic Capabilities (DC), and Government Support (GS) to SMEs in Ghana. The methodology includes selecting participants primarily from the SME business operators including member of the Association of Ghana Industries (AGI). Data collection involved using a purposive sample of 350 SME business operators located in major cities in Ghana. Instruments to measure key constructs were adapted from previous studies and included Likert-like scales for Entrepreneurship Orientation and Firm Performance, and specific scales for Dynamic Capabilities and Government Support. The data collection process occurred in three phases: online questionnaires distributed to stakeholders, field research officers visiting workplaces with printed questionnaires, and a combination of both methods.

The study employed Structural Equation Modeling (SEM) for data analysis, following recommendations for model validation, collinearity checks, and reliability assessments. Mediation analysis was conducted using a multiple mediator model, exploring indirect effects through sensing and learning capabilities. Moderation analysis focused on the influence of government support as a continuous variable, utilizing mean centering and interaction term methods. The anticipated outcomes of mediation analysis included full, partial, complementary, or competitive mediation effects, while moderation analysis aimed to examine how government support altered the relationship between independent and dependent variables. Finally, the methods of the data analysis for each of the research question and hypotheses were presented, followed by the step-by-step approach of using AMOS software. Results of the data analysis were presented in the subsequent chapters.

CHAPTER FOUR
DATA PRESENTATION AND ANALYSIS

4.0 Introduction

This chapter is organized as follows. The study intended to investigate the relationship between entrepreneurship orientation and firm performance, the mediating role of dynamic capabilities and the moderating role of government support to SME businesses in Ghana. This was achieved by examining the proposed model for the research in Ghana. This chapter presents the results of the data analysis for the five stated research questions and the seventeen (17) hypotheses proposed from the model of the research. Furthermore, the chapter draws conclusion from data gathered from SMEs firms in Ghana. Data collected was analysed with the Statistical package for solutions and services (SPSS). The tables are grouped into demographic SME profile, Respondents' Demographic Profile comprising (gender, qualification, age, and position at workplace). The chapter uses descriptive statistics, such as frequency, percentages as well as multivariate analytical methods such as Structural Equation Modeling (SEM) to study entrepreneurship orientation and firm performance.

4.1 Demographic of SME Profile

Table 1 shows the demographic information of the SME profile which participated in this study. The characteristics and description of SME in Ghana with more elaboration under the table below.

As depicted in the table, the industries were: Agriculture and agri-business 24 (8.6%); Extraction, drilling & mining 2 (7%); Financial services 74 (26.6%); Health facility/services 27(9.7%); Hospitality (including hotels, hostels, and restaurants)14 (5.0%); Manufacturing 32 (11.5%); Service provider 50 (18.0%); Wholesaling/retailing 38 (13.7%); Other (kindly indicate)17(6.1%). On the year of existence of the company, it was responded as follows: 0 – 5=84 (30.2%);11-15=38 (13.7%);16-20= 8(2.9%); 21-25=9(3.2%);26-30=8(2.9%);31+=79 (28.4%); 6-10=52 (18.7%) on the full time employees which were working on the various SME in the country. 1-9=118 (42.4%); 10-99= 59(21.2%); 100-499= 86(30.9%); 500+=15(5.4%)

Table 6: SME Profile: (N =298)

Variables	Factors	Frequency	Valid percentage (%)
Industries	Agriculture and agri-business	24	8.6
	Extraction, drilling & mining	2	.7
	Financial services	74	26.6
	Health facility/services	27	9.7
	Hospitality (including hotels, hostels, and restaurants)	14	5.0
	Manufacturing	32	11.5
	Other (kindly indicate)	17	6.1
	Service provider	50	18.0
	Wholesaling/retailing	38	13.7
Years Of Existence	0 - 5	84	30.2
	11-15	38	13.7
	16-20	8	2.9
	21-25	9	3.2
	26-30	8	2.9
	31+	79	28.4
	6-10	52	18.7
Number of Employees	1-9	118	42.4
	10-99	59	21.2
	100-499	86	30.9
	500+	15	5.4

Source: Own Elaboration, 2024

4.2 Respondents' Demographic Profile

The demographic profile contains the respondents' characteristics in terms of Age group, gender, managerial position, level of education, and years in a position in the business. All respondents, including managers of varied workplaces operating SMEs in various settings (e.g., CEO, General Manager, Managing Director, and Other top management position), returned surveys from which findings regarding demographic characteristics were derived. As depicted in the table below, 64.7% of the respondents surveyed were Male (n=180) and 35.3% of Female (n=98). This result indicated that, business managers are likely men. The respondents came from the age group between 20 to 29 years old, constituting 31.7% (n=88); while the age group between 30 to 39 constituting 40.6% (n=113); and 40 to 49 age group having 21.6% (n=60);50 or more, of the surveyed respondents were 6.1% (n=17). In terms of level of education, those in the "Up to 1st Degree" constituting the largest share of the respondents 120 (43.2%). Up to 2nd Degree of the respondents constitute 94 (33.8%); Up to Diploma/HND have 26 (9.4); up to PhD respondents 11(4.0%) respondents and up to SHS/ A' level /O'level qualifications of the respondents constituting 27(9.7%) of the respondents. This implies that the managers who were managing these businesses were up to the 1st degree level in their education. On the managerial position of the respondents, CEO constitutes 66 (23.7%); General Manager 39 (14.0%) Managing Director 51 (18.3%) Other top management position 122 (43.9%). On assessing the number of years for managers in a position: 0-5= 157 constitutes (56.5%);11-15=20 shows (7.2%);16-20=4 for (1.4%)**;** 21-25=3 for (1.1%); 26-30=4 for (1.4%); 31+ for (1.4%); and 6-10=89 for (32.0%).

Table 7:Respondents' Demographic Profile: *N=298*

Variables	Factors	Frequencies	Valid percentages
Age Group	20 to 29	88	31.7
	30 to 39	113	40.6
	40 to 49	60	21.6
	50 or more	17	6.1
Gender	Female	98	35.3

	Male	180	64.7
Managerial Position	CEO	66	23.7
	General Manager	39	14.0
	Managing Director	51	18.3
	Other top management position (kindly indicate.....	122	43.9
Level Of Education	Up to 1st Degree	120	43.2
	Up to 2nd Degree	94	33.8
	Up to Diploma/HND	26	9.4
	Up to PhD	11	4.0
	Up to SHS / A 'level/ O'level	27	9.7
Years In a Position	0-5	157	56.5
	11-15	20	7.2
	16-20	4	1.4
	21-25	3	1.1
	26-30	4	1.4
	31+	1	.4
	6-10	89	32.0

Source: Own Elaboration, 2024

4.3 Testing the Research Questions and the Hypotheses

Descriptive and Structural Equation Modeling (SEM) were used to investigate the five research questions and the hypotheses of the study. SEM, as an approach to statistics looks at multiple variables' correlations at once. SEM is seen as a set of related statistical procedures rather than a singular procedure (Christ et al., 2014; MacCallum & Austin, 2000). This group of analytical methods looks at a variable's measurement characteristics as well as its relationships (De Carvalho & Chima, 2014; (Sarstedt & Ringle, 2020). The use of SEM takes three approaches in analysing the data. It starts with the Confirmatory Factor Analysis (CFA), an approach in which the researcher has proposed a "model" of relationships between variables of interest and examines whether the observed data will provide evidence of directionality and significance of the relationships. The second approach is the measurement model, which looks at the model fit, normality, outliers, discriminant validity and multicollinearity and the third approach is the structural modeling, which test the path coefficient, mediation, and moderation roles from the proposal model. All three steps of the structural equation modeling answer the research questions and the hypotheses. (Malang-Indonesia, 2014; Al Muala et al., 2013). Joreskog (1993) outlines how SEM testing usually follows the stated approaches below:

4.4 Confirmatory Factor Analysis (CFA)

CFA is used to confirm a theoretical model using empirical data and it is one of the multivariate techniques in structural equation modeling (Nye, 2023; Alavi et al., 2020; De Carvalho & Chima, 2014). According to Brown (2015), a key feature of CFA is its hypothesis-driven methodology. First, a hypothesis is made by the researcher about the structure of the model, expressed as a particular factor(s) underlying a set of items. An analysis is then carried out to determine how the covariance between items is explained by the hypothesis (Hooper, Coughlan, & Mullen, 2008). A crucial stage in CFA is evaluating the goodness of fit of the suggested model, which indicates how well the model matches the observed data, in addition to evaluating the covariance represented by the model (Hooper et al., 2008). The idea/theory serves as the foundation for the hypothesis that the researcher has to develop or create for confirmatory factor analysis. (Malang-Indonesia, 2014). Kline (2005) stated that CFA intends to test the validity of the instrument, to assess the model fit, to test the multivariate normality and check for outliers. It provided a method for analyzing the goodness fit of the data and offers practical indices. It is also capable of representing the covariation among the items and

eliminating subscales that do not correspond to the respective latent construct. It is the first step and essential in analyzing the model validity before proceeding with SEM.

Furthermore, it is best practice in CFA research (Thompson, 2000; Vandenberg & Gelle, 2009) not only to test the hypothesized model, but also to estimate several plausible alternative models. As discussed below, the fit indices used to assess CFA fit only indicate the overall fit of the model, but do not indicate that the hypothesized model is the best possible model. A particular model may be a good fit based on traditional model fit assessment guidelines, but there may still be a better fitting model that would provide a more accurate description of the data. This can be addressed by estimating several plausible and theoretically relevant alternative models. (Nye, 2023)

4.4.1 The Measure of Model Fit in CFA

Model fit evaluation is the next step for researchers once they have estimated their model. There are several indices available to assess the fitness of the CFA model. These indices are well known and have been discussed in the literature (e.g. Barrett, 2007; Fan & Sivo, 2007; Hu & Bentler, 1999; Schermelleh-Engel, Moosbrugger, & Muller, 2003). According to Collier (2020), measurement of CFA is delineated on the various threshold for accepting the model fit index, which may differ based on a number of factor groups, number of observed variables, sample size, and other factors.

One of the most widely used fit indices is the chi-square ($\chi 2$) index of fit. Bollen (1989), explained that, the $\chi 2$ likelihood ratio test, the Standardized Root Mean Residual (SRMR), the Goodness-of-Fit Index (GFI, CFI, and IFI) are the most frequently achieved measures. (Al Muala et al., 2013). A number of other indices were developed including RMSEA, CFI, TLI, and SRMR. These indices were specifically developed to address the limitations of the chi-square and provide an alternative perspective on the fit of a model. To help interpret these indices, past studies have conducted simulations to identify cutoffs that reflect poor model fit. Bentler and Bonett (1980), the most widely cited research encouraging researchers to pursue model fit statistics (CFI, TLI, NFI, IFI) that are greater than .90. Again, researchers like Hu and Bentler (1999) contended that the.90 threshold was too lenient and that fit indices required to be more than.95 to be deemed a good-fitting model, this rule of thumb was nonetheless widely accepted. Subsequently, Marsh et al. (2004) have argued against the rigorous Hu and Bentler criteria in favor of using

multiple indices based on the sample size, estimators, or distributions. Hence, there are no golden rules that universally hold as it pertains to model fit. The most stringent guidelines have suggested that an RMSEA ≤.06, CFI ≥.95, TLI ≥.95, and SRMR ≤.06 generally indicate good approximate fit. However, in practice, these guidelines are often relaxed such that an RMSEA ≤.08, CFI ≥.90, TLI ≥.90, and SRMR ≤.08 indicate moderate fit. Below were the CFA and model fit indices used for the 9 constructs of this research with detail discussions as follows:

4.5 Entrepreneurship Orientation

This construct was developed by Danny Miller (1983) and peter Friesen in their seminal work for decades. (Covin & Lumpkin, 2011; Inoubli & Gharbi, 2022). Although the Miller's EO interpretation is broadly accepted in the management literature, alternative approaches suggest incorporating other distinctive dimensions that better reflect the rapid changes in the economic environment (Edmond and Wiklund, 2010; Wiklund and Shepherd, 2005). Lumpkin and Dess (1996) model of the EO proposed two more dimensions: competitive aggressiveness (CA) and autonomy (AT). These two dimensions characterize and distinguish an essential entrepreneurial process, which includes the capacity of acting autonomously and the tendency to behave with aggressiveness towards competitors to get first any market opportunity. In summary, such a model considers that if an organization aims to act with an entrepreneurial posture, it should develop five dimensions: innovativeness (IN), Risk-taking (RT), proactivity (PR), autonomy (AT) and competitive aggressiveness (CA). (Alvarez-Torres et al., 2019). Below are the various CFAs for the entrepreneurship orientation.

4.5.1 Autonomy

An essential element of entrepreneurial orientation (EO) is autonomy. Autonomy facilitates advantage- and opportunity-seeking behaviors in the context of strategic entrepreneurship (Ireland, Hitt, & Sirmon, 2003). Few EO research have examined autonomy as a component of EO, despite Lumpkin and Dess' 1996 proposal to include it as a dimension. (Lumpkin et al., 2009). From the above figure 1, and after running for the CFA, the coefficient value for the remaining items was in the range between .54 to .89. these items fit the CFA model of the autonomy (AUTO) with Model Fit Statistics ($\chi 2$ = 0.000, df =1; CFI =1.000, TLI = 0.000, RMSEA <0.8, =0.000, AGFI= 0.000, P =0.000). having significantly passed the cutoff point of .90. Furthermore, after running the original

construct, one of the items was eliminated with a minimum factor loading criteria of 0.5 as illustrated above.

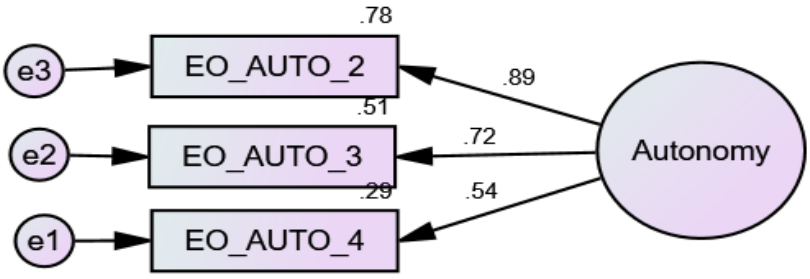


Figure 1: ***CFA Model for Autonomy;*** *Chi-Square=0.000, DF=1 Relative Chi-Sq (<5.0)=0.000 , p=0.000, GFI (>=.9) =1.000, AGFI (>=.9) =1.000, CFI (>=.9) =1.000, IFI (>=.9) =1.000, NFI (>=.9) =1.000, TLI (>=.9) =1.000, RMSEA (<= .08) =0.000, AIC (lower better)=1.000*

4.5.2 Competitive Aggressiveness

Another validated element in EO Research is Competitive aggressiveness. The dimension, as defined by Lumpkin and Dess (1996) has been assessed for academic research (Gürol & Atsan, 2006); Levenburg and Schwarz, 2008; Raposo et al., 2008). Furthermore, it was found that, out of the five elements, one item has low factor loading (less than 0.5) and was deleted to enhance the model fit of the data: with Model Fit Statistics ($\chi 2$ =0.083, df =1; CFI = 1.000, TLI = 1.014, RMSEA <0.8, =0.000, AGFI= 0.999, P =0.774). having significantly passed the cutoff point of .90. the result indicated that, the goodness of fit indices such as GFI, NFI AND TLI have significantly passes the cut off point value of more than 0.90 with RMSEA less than .08. the above CFA displayed the detail extracted from the AMOS results.

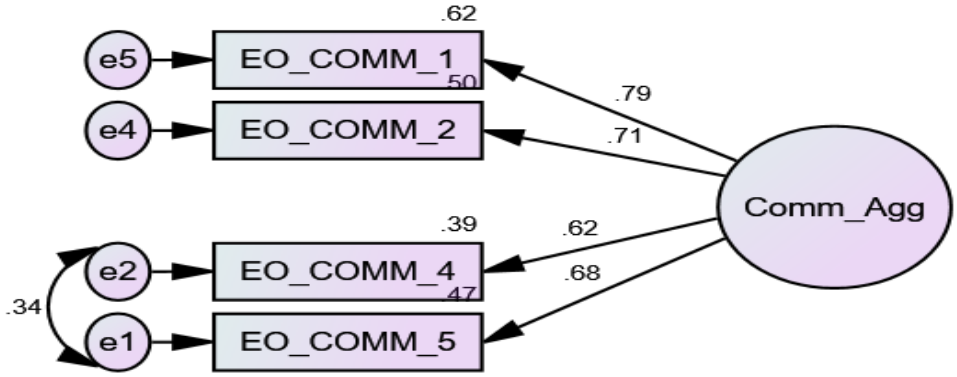


*Figure 2: **CFA Model for** **Competitive Aggressiveness**; Chi-Square=0.83, DF=1 Relative Chi-Sq. (<5.0)=0.083, p=0.774, GFI (>=.9) =1.000, AGFI (>=.9) =0.999 CFI (>=.9) =1.000, IFI (>=.9) =1.002, NFI (>=.9) =1.000, TLI (>=.9) =1.014, RMSEA (<= .08) =0.000, AIC (lower better)=18.083*

4.5.3 Innovativeness.

Being creative and experimentally inclined is what makes one innovative. While more radical innovations require brand-new abilities and may render old talents useless, some innovations build on existing skills to produce gradual improvements. In either case, innovation aims to create new goods, services, and procedures. Successful innovation initiatives typically result in better performance for the organization than unsuccessful ones. (Hernández-Perlines et al., 2020). All the six items initially proposed by proposed by Miller's conceptualization met the factor loading criteria except for two elements. Figure 3 below shows that after running the CFA, two of the items were deleted because it did not fulfil the minimum factor loading criteria of 0.5. The factor loadings for all items were in the range of between 0.60 to 0.81 and the model fit was as follows: Model Fit Statistics ($\chi 2 = 3.562$, df =2; CFI = 0.998, TLI = 0.993, RMSEA <0.8, =0.052, AGFI= 0.969, P =0.168). having significantly passed the cutoff point of .90.

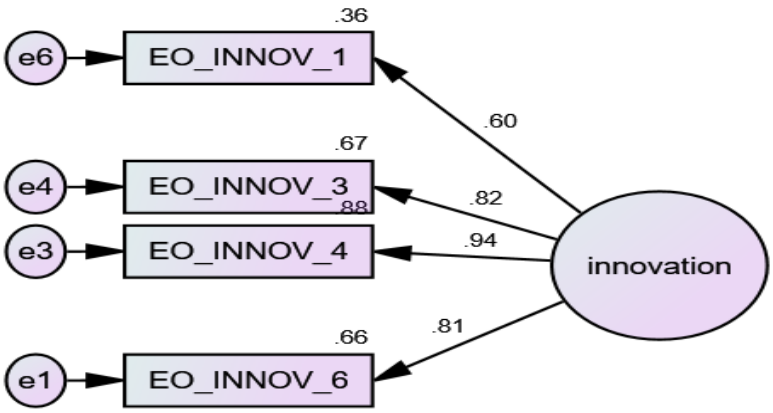


*Figure 3: **CFA Model for** **Innovativeness**; Chi-Square=3.562, DF=2 Relative Chi-Sq. (<5.0)=1.781, p=0.168, GFI (>=.9) =0.994, AGFI (>=.9) =0.969, CFI (>=.9) =0.998, IFI (>=.9) =0.998, NFI (>=.9) =0.995, TLI (>=.9) =0.993, RMSEA (<= .08) =0.052, AIC (lower better)=19.562*

4.5.4 Proactiveness

When a business is proactive, it means that it makes an effort to compete in the market and respond to business opportunities. In the context of businesses functioning in complex settings or growing business sectors, where social conditions are constantly changing and prospects for progress are many, proactivity simply refers to responding to employment options as they arise. Being proactive is a fantastic opportunity attitude that includes responding to the expectation of potential demand to bring about change and have an impact on the environment, as well as releasing cutting-edge products and competitive services in the market (Al-Mamary & Alshallaqi 2022; Lumpkin & Dess, 2001). The original elements for proactiveness construct were four. There was no elimination of the item after running the CFA. All the items have fulfilled the minimum factor loading criterion of 0.5 as illustrated from figure 4 above. The factor loadings for all items were in the range of between 0.79 to 0.81 and the model fit was as follows: Model Fit Statistics ($\chi 2$ = 0.848, df =1; CFI = 1.000, TLI = 1.000, RMSEA <0.8, =0.000, AGFI= 0.999, P =0.357). having significantly passed the cutoff point of .90

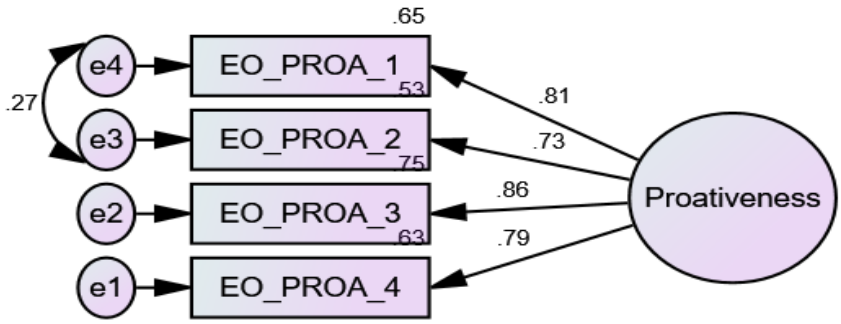


*Figure 4: **CFA Model for** **Proactiveness**; Chi-Square=0.848, DF=1, Relative Chi-Sq. (<5.0)=0.848, p=0.357, GFI (>=.9) =0.999, AGFI (>=.9) =0.986, CFI (>=.9) =1.000, IFI (>=.9) =1.000, NFI (>=.9) =0.999, TLI (>=.9) =1.001, RMSEA (<= .08) =0.000, AIC (lower better)=18.848*

4.5.5 Risk -Taking

To measure the risk-taking element among the respondents, developed as part of Miller's initial conceptualization of the three dimensions of the entrepreneurship orientation, the construct has four elements. After running for the construct, one element with lower factor loading of 0.5 was deleted to enhance the model fit of the construct. Figure 5 shows the coefficient values for the remaining four items ranged from 0.75 to 0.82.

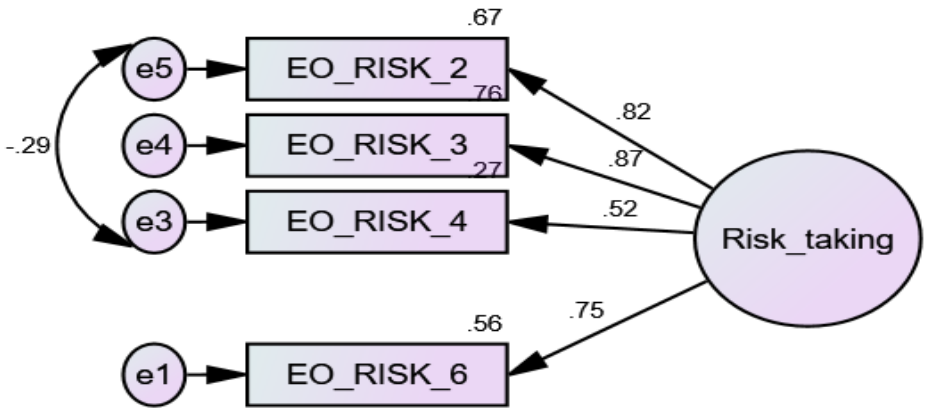


*Figure 5: **CFA Model for** **Risk Taking**; Chi-Square=2.627, DF=1, Relative Chi-Sq. (<5.0)=2.627, p=0.105, GFI (>=.9) =0.996, AGFI (>=.9) =0.956, CFI (>=.9) =0.997, IFI (>=.9) =0.997, NFI (>=.9) =0.994, TLI (>=.9) =0.979, RMSEA (<=*

4.6 Dynamic capabilities

Dynamic capabilities were described by Teece, Pisano, and Shuen (Teece, Pisano and Shuen, 1997) as the firm's capacity to integrate, develop, and reconfigure internal and external competencies in response to quickly changing circumstances. From a practical standpoint, business environments have been more dynamic during the previous three decades due to the quick pace of technological advancement, shorter product life cycles, and globalization (Helfat & Peteraf 2009). Below are the CFA of the two dimensions used for the proposed model of the research.

4.6.1 Sensing Capabilities

The term "sensing capabilities" describes a company's capacity to identify market possibilities before rivals do. Using data, analytics, and technology to spot new trends, gauge client demands, and spot competitor risks will help you hone this talent. According to Teece (2007), and Laamanen and Wallin, 2009), company needs to be able to create a systematic scanning mechanism that is based on organizational analytical procedures to monitor and analyze market developments. An organization must invest in staff, software tools, and data collection strategies to expand its sensing capabilities. Businesses should concentrate on gathering data—both qualitative and quantitative— and behaviors of their clients as well as industry trends. In addition, they want to examine outside resources like research studies or rival analysis to obtain understanding of the state of their industry. The development of theories regarding prospective future opportunities or hazards can then be done using this information. (Dias & Lages, 2021). Sensing was used to test the

mediation role of entrepreneurship orientation and firm performance to SME businesses in Ghana. This means that the researcher focused on examining the role of sensing as a mediator in the relationship between EO and FP. After running the CFA, it was found that all the four items from the original construct exhibited acceptable factor loading, ranging from 0.86 to 0.87. As illustrated in figure 6, the items have fitted the model fit indices: (χ2 = 4.618, df =2; CFI = 0.997, TLI = 0.991, RMSEA <0.8, =0.067, AGFI= 0.962, P =0.99). having significantly passed the cutoff point of .90.

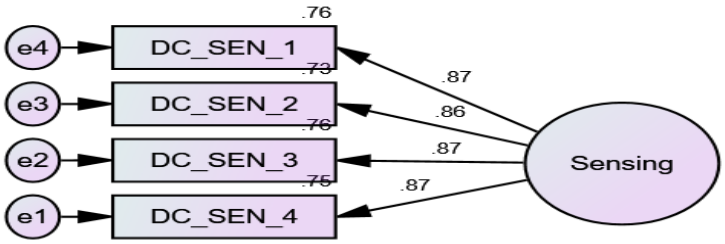


*Figure 6: **CFA Model for** **Sensing Capabilities**; Chi-Square=4.618, DF=2 Relative Chi-Sq. (<5.0)=2.309, p=0.099, GFI (>=.9) =0.992, AGFI (>=.9) =0.962, CFI (>=.9) =0.997, IFI (>=.9) =0.997, NFI (>=.9) =0.995, TLI (>=.9) =0.991, RMSEA (<= .08) =0.067, AIC (lower better)=20.618*

4.6.2 Learning Capabilities

Another construct adopted from the work of David Teece was the learning capability. Initially, the construct consists of five items. After removing the items with factor loading less than 0.50, only the four items remained in the model. As illustrated in figure 7, the coefficient values for the remaining four items ranged from 83 to 89. The result shows that all the fit indices met the recommended criteria for good fit. The relative chi-square (χ2/df) was less than 0.50, which indicative of the of acceptance fit between the hypothetical model and the sample data. AGFI, GFI, CFL, IFI and TLI were well above 0.90. However, the absolute fit index value of RMSEA was a little above 0.08.

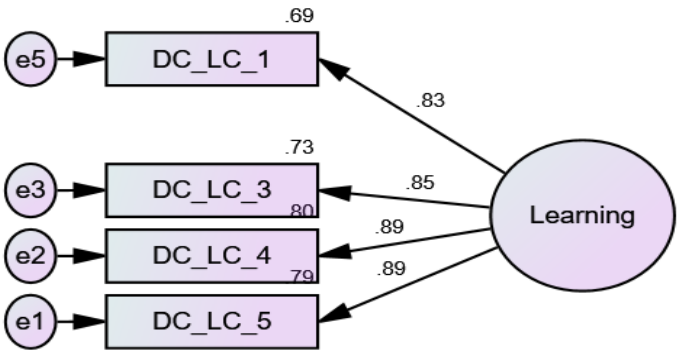


*Figure 7: **CFA Model for** **Learning Capabilities**; Chi-Square=7.352, DF=2 Relative Chi-Sq. (<5.0)=3.676, p=0.025, GFI (>=.9) =0.988, AGFI (>=.9) =0.939, CFI (>=.9) =0.994, IFI (>=.9) =0.994, NFI (>=.9) =0.992, TLI (>=.9) =0.982, RMSEA (<= .08) =0.096, AIC (lower better)=23.352*

4.7 Government Support

Government support for SME is provided through a multitude of policies at the local, regional, and national levels. There is some rationale for the government support for SME. (Doh & Kim, 2014). Based on the figure 8 above, the factor loadings for all items were in the range of 0.82 to 0.88 and the model fit was as follows: Model Fit Statistics ($\chi 2$ = 0.478, df =2; CFI = 1.000, TLI = 1.000, RMSEA <0.8, =0.000, AGFI= 0.999, P =0.787). having significantly passed the cutoff point of .90

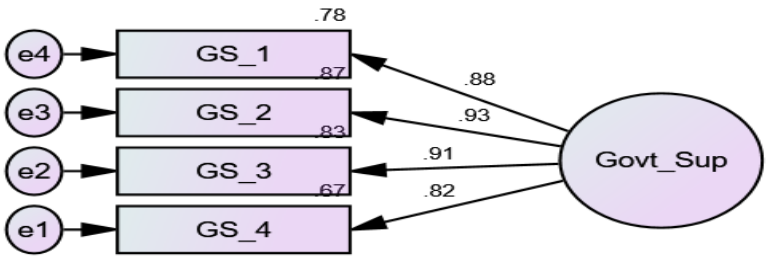


Figure 8: CFA Model for Government Support*; Chi-Square=0.478, DF=2, Relative Chi-Sq. (<5.0)=0.239, p=0.787, GFI (>=.9) =0.999, AGFI (>=.9) =0.996, CFI (>=.9) =1.000, IFI (>=.9) =1.001, NFI (>=.9) =1.000, TLI (>=.9) =1.004, RMSEA (<= .08) =0.000, AIC (lower better)=16.478*

4.8 Firm Performance

There are a wide range of factors that can affect how well a firm performs, and there is no single model that can be applied to all firms or a particular class of firms (Costa et al., 2021. Vieira et al., 2019). According to Fama and French (1992), Miller et al. (2007), Villalonga and Amit (2006), and Martinez-Alonso et al. (2020), the most common factors used to explain performance are those peculiar to the firm. In the case of running the CFA of the constructs, the elements used were six as shown in figure 9 below. And due to the low result of one of the items with low factor loading, one of the elements was deleted while the five items remained in the model. The coefficient value for the remaining items were in the range between 0.64 to 0.92. these items fit the CFA Model of firm performance with (χ2 = 7.352, df =4; CFI = 0.997, TLI = 0.924, RMSEA <0.8, =0.053, AGFI= 0.832, P =0.000). GFI=0.871, AGFI=0.963, CFI 0.935; IFI=0.997, NFI=0.993, TLI 0.924).

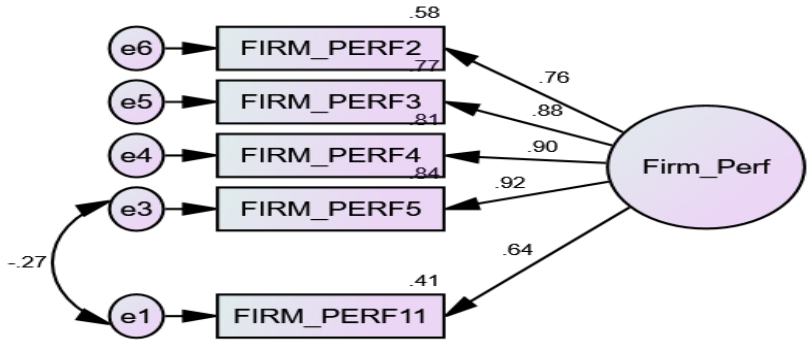


*Figure 9: **CFA Model for** **Firm Performance**; Chi-Square=7.352, DF=4 Relative Chi-Sq. (<5.0)=1.838, p=0.118, GFI (>=.9) =0.990, AGFI (>=.9) =0.963, CFI (>=.9) =0.997, IFI (>=.9) =0.997, NFI (>=.9) =0.993, TLI (>=.9) =0.992, RMSEA (<= .08) =0.053, AIC (lower better)=29.352*

4.9 Confirmatory Factor Analysis (CFA)

This study conducted a confirmatory factor analysis (CFA) in AMOS 23 to assess the validity of the measurement model and conducted a series of reliability tests, which included all multiple item scales and covariates. The model fits the data reasonably well ($\chi 2$ = 1550.230, df =558; CFI = 0.890, TLI = 0.875, RMSEA <0.8, =0.080, AGFI= 0.689, P =0.000). The factor loading of all the items were more than 0.50 (Bagozzi and Yi, 1988) and the average variance extracted (AVE) of all constructs exceeded the recommended benchmark of 0.50 (Fornell and Larcker, 1981) providing support for convergent validity (Bagozzi and Yi, 1988). The composite reliability of all constructs also exceeded the recommended benchmark of 0.70 (Nunnally, 1978).

Table 8: Confirmatory Factor Analysis and Reliability Analysis

Constructs	Items	Squared Factor Loadings (λ2)	AVE	CR
	Autonomy		**0.714**	**0.854**
	EO_AUTO_4	0.538		
	EO_AUTO_3	0.717		
	EO_AUTO_2	0.886		
	Proactiveness		**0.797**	**0.921**
	EO_PROA_4	0.794		
	EO_PROA_3	0.863		
	EO_PROA_2	0.726		
	EO_PROA_1	0.806		
	Risk-taking		**0.741**	**0.901**
	EO_RISK_6	0.747		
	EO_RISK_4	0.523		
Entrepreneurship	EO_RISK_3	0.872		
Orientation	EO_RISK_2	0.821		
	Competitive		**0.702**	**0.888**
	Aggressiveness			
	EO_COMM_5	0.684		
	EO_COMM_4	0.625		
	EO_COMM_2	0.708		
	EO_COMM_1	0.790		
	Innovations		**0.794**	**0.920**
	EO_INNOV_6	0.813		
	EO_INNOV_4	0.939		
	EO_INNOV_3	0.820		

	EO_INNOV_1	0.602		
	Govt Support		**0.886**	**0.954**
Government Support	GS_4	0.821		
	GS_3	0.909		
	GS_2	0.930		
	GS_1	0.884		
	Learning Capabilities		**0.867**	**0.947**
Learning Capabilities	DC_LC_5	0.889		
	DC_LC_4	0.894		
	DC_LC_3	0.854		
	DC_LC_1	0.830		
	Sensing Capability		**0.866**	**0.946**
Sensing Capabilities	DC_SEN_4	0.866		
	DC_SEN_3	0.869		
	DC_SEN_2	0.855		
	DC_SEN_1	0.872		
	Performance		**0.820**	**0.939**
Firm Performance	FIRM_PERF11	0.643		
	FIRM_PERF5	0.915		
	FIRM_PERF4	0.902		
	FIRM_PERF3	0.876		
	FIRM_PERF2	0.763		

Model Fit Statistics ($\chi 2$ = 1550.230, df =558; CFI = 0.890, TLI = 0.875, RMSEA <0.8, =0.080, AGFI= 0.689, P =0.000). AVE: Average Variance Extracted. CR: Construct Reliability.

4.10 Outliers.

An outlier is a value in the data that deviates so much from the rest of the sample that ignoring it can lead to significant incorrect estimate (Chambers et al., 2004). Outlier detection refers to the problem of finding patterns in data that do not conform to expected normal behavior. Besides, outlier detection has been a widely researched problem and finds immense use in a wide variety of application domains such as credit card, insurance, tax fraud detection, intrusion detection for cyber security, fault detection in safety critical systems, military surveillance for enemy activities and many other areas. In a regression analysis, a single case can be responsible for 100% of the predicted response (i.e., leverage of 1.00) regardless of the sample size. A small number of outliers can reverse the statistical significance of an analysis in either direction. According to Hair et al. (2006), outliers are observations that have a special combination of traits that make them stand out from other observations. A well-known criterion for identifying outliers in multivariate data is the Mahalanobis distance (Ben-Gal, 2005; Sullivan et al., 2021). For this analysis, sixteen (16) items were removed as outliers from the data. Table 5 below shows the observation numbers deleted from the data.

Table 9: Observations farthest from the centroid (Mahalanobis distance) (Group number 1)

Observation number	Mahalanobis d-squared	p1	p2
104	148.689	0	0
67	118.531	0	0
226	116.342	0	0
177	83.753	0	0
72	82.93	0	0
100	82.864	0	0
7	82.549	0	0
186	81.532	0	0
8	81.519	0	0
116	76.676	0	0
48	75.964	0	0
192	74.058	0	0
91	73.805	0	0

277	71.41	0	0
133	71.202	0	0
191	70.667	0	0

Discriminant validity was established by first comparing the square roots of the AVE values against the off-diagonal correlations (Fornell and Larcker, 1981). As shown in Table 6 below, the average square roots of the AVE were consistently greater than the off-diagonal correlations, providing support for discriminant validity. It was also assessed by comparing the scores of individual correlations with their respective reliability (Gaski and Nevin, 1985). Furthermore, it ensures the uniqueness of one construct from all other constructs. Similarly, Hair et al 2019 stated that discriminant validity is established when shared variance of one construct is greater than the share variance of all other construct. The rule of thumb for this criterion is that the square root of AVE for each of the construct should be greater than the highest correlation values of other constructs.

Table 10: Discriminant Validity

CR= Composite Reliabilities; AVE= Average Variance Extracted; Sensing= Sensing Capabilities; Auto=Autonomy; Comm_Agg= Competitive

Constructs	CR	AVE	Sensing	Auto	Comm_Agg	Proactive	Govt	Risk_taking	Firm_Perf	Innovative	Learning
Sensing	0.936	0.784	**0.886**								
Autonomy	0.780	0.547	0.513	**0.740**							
Comm_Agg	0.830	0.551	0.656	0.678	**0.742**						
Proactive	0.892	0.674	0.803	0.512	0.598	**0.821**					
Govt	0.944	0.808	0.336	0.546	0.473	0.417	**0.899**				
Risk_taking	0.843	0.585	0.766	0.562	0.718	0.837	0.336	**0.765**			
Firm_Perf	0.922	0.707	0.378	0.277	0.353	0.309	0.162	0.208	**0.841**		
Innovative	0.889	0.670	0.775	0.480	0.627	0.877	0.337	0.841	0.275	**0.819**	
Learning	0.938	0.792	0.814	0.599	0.582	0.762	0.381	0.710	0.300	0.722	**0.890**

Aggressiveness; Govt= Government Support; Firm_Perf= Firm Performance; Leaning= Leaning Capabilities

4.11 Measurement Model

Structural equation modeling process includes two main steps: validating the measurement model and structural model (Hair et al., 2012). The purpose of the measurement model estimation is to specify the pattern by which each measure (indicator or item) loads on a particular factor (construct or variable) in original model in this study, and to assure the reliability and validity of measures and constructs.

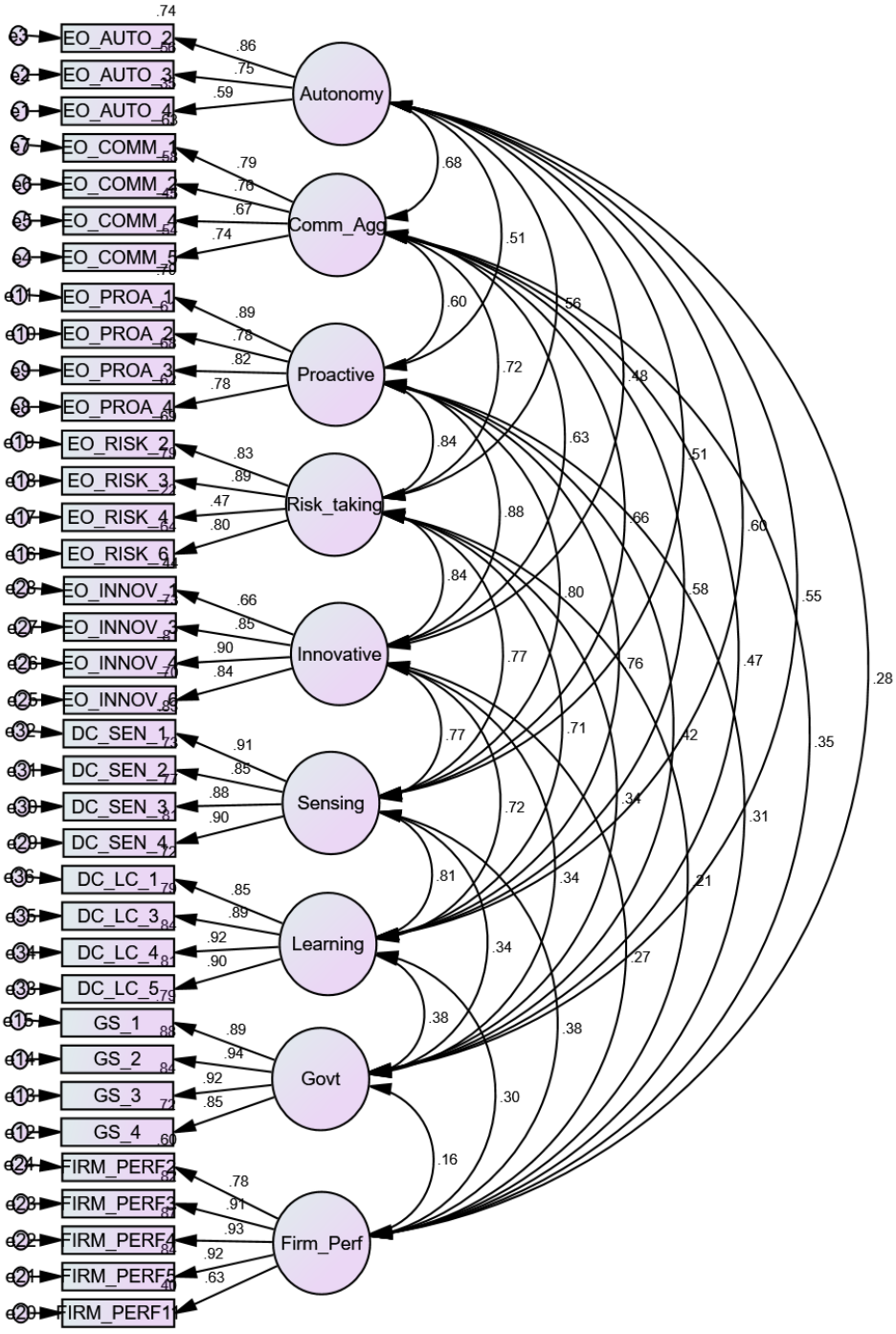


Figure 10: Figure 10:Measurement Model Chi-Square=1550.230, DF=558, Relative Chi-Sq. (<5.0)=2.778, p=0.000, GFI (>=.9) =0.739,AGFI (>=.9) =0.689, CFI (>=.9) =0.890, IFI (>=.9) =0.839, NFI (>=.9) =0.839, TLI (>=.9) =0.875, RMSEA (<= .08) =0.080, AIC (lower better)= 1766.230

4.12 Hypotheses Testing

In this study 17 hypotheses were tested. Five of the 17 hypotheses (H1, H2, H3, H4, and H5) were tested in the structural model to determine the direct effect of entrepreneurship orientation on firm performance, which addressed the first objective of the study. Another 10 hypotheses (H6, H7, H8, H9, H10, H11, H12, H13, H14, and 15), on the other hand, were tested for the mediation role of sensing capabilities and learning capabilities, which addressed objective two and three. The last set of hypotheses (H16 and H17) were tested for the moderation role of government support, which addressed the fourth and fifth objective of the research. The hypotheses testing was conducted by performing Structural Equation Model. The results for each of the steps are presented below.

4.13 Structural Model Assessment

Following the assessment of the measurement model, the next step is evaluation of the path coefficient (relationships among study construct) and their statistical significance. H1 evaluates whether Innovativeness has a significant effect on Firm Performance. The results revealed that innovativeness has insignificant effect on firm performance (**β**=0.571, p=0.432, hence H1 was not supported. H2 evaluates whether Risk Taking has a significant effect on Firm Performance. The results revealed that, Risk taking has significant effects on firm performance (**β**=0.673, p<0.003) consequently, H2 was supported. H3 evaluates whether proactiveness has a significant effect on Firm Performance. The results revealed that, proactiveness has an insignificant impact on firm performance (**β**=0.255, P=0.193), Hence H3 was not supported. H4 evaluates whether competitive aggressiveness has a significant effect on Firm Performance. The results revealed that, competitive aggressiveness has positive significant on firm performance. (**β**=0.251, P<0.015), Hence H4 was supported. H5 evaluates whether autonomy has a significant effect on Firm Performance. The results revealed that autonomy has insignificant impact of firm performance. (**β**=0.071, p=0.504).

4.14 Path Analysis

So far, the researcher has discussed the measurement model. The next to discuss is the structural model. The structural model's focus is on examining the relationships *between* constructs. The first type of structural model was to examine the path analysis. In a path analysis, the researcher assessed the only relationships between constructs (no measurement model items included). Path analysis is a collection of statistical techniques

intended to evaluate a causal model that has been proposed to explain the interactions between three or more variables. The researcher develops a causal model based on theory and current knowledge, and then uses path analysis to assess the causal model's consistency with the empirical data. Models that don't fit the data are discarded, while those that do fit the data are considered to be likely causal patterns that should be investigated in more detail. Table 6 below shows the path coefficients result of the model.

Table 11: Path Co-efficient (Direct effect) Result Between Entrepreneurship Orientation and Firm Performance

Hypotheses			B	Beta	S.E.	C.R.	P	Decision
Firm_Perf	<---	Autonomy	0.071	0.071	0.107	0.669	0.504	**Not Significant**
Firm_Perf	<---	Comm_Agg	0.251	0.327	0.104	2.427	0.015	**Significant**
Firm_Perf	<---	Proactive	0.252	0.314	0.193	1.302	0.193	**Not Significant**
Firm_Perf	<---	Risk_taking	-0.425	-0.539	0.145	-2.93	0.003	**Significant**
Firm_Perf	<---	Innovative	0.008	0.01	0.137	0.055	0.956	**Not Significant**

Note: S.E (Standard Error);C.R (Critical Ratio); B (Unstandardised Regression Weight); Beta (Standardised Regression Weight)

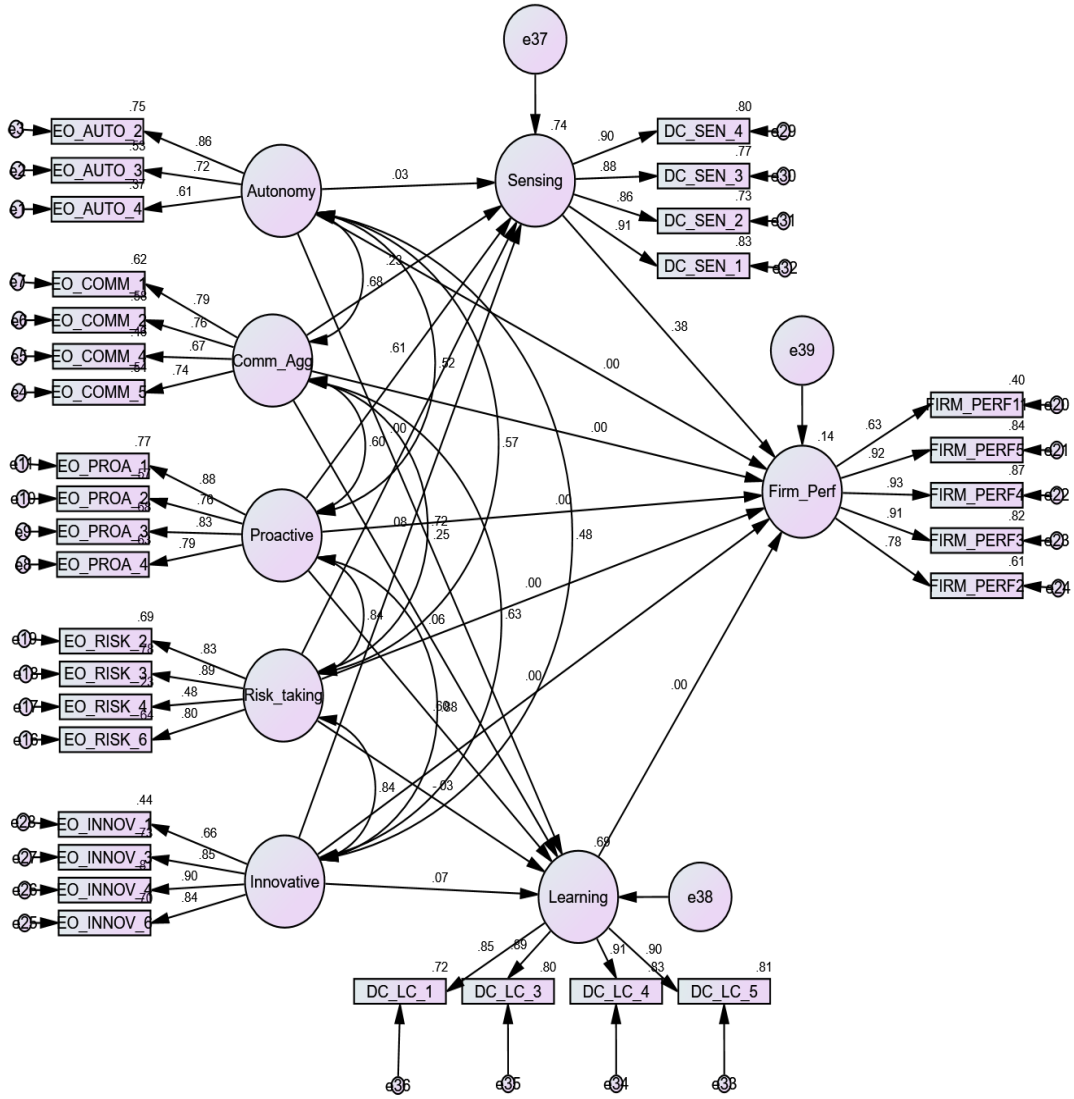


Figure 11: Structural Model; Chi-Square=1351.814, DF=437, Relative Chi-Sq. (<5.0)=3.093, p=0.000, GFI (>=.9) =0.739, AGFI (>=.9) =0.684,CFI (>=.9) =0.882, IFI (>=.9) =0.883, NFI (>=.9) =0.836, TLI (>=.9) =0.866, RMSEA (<= .08) =0.087, AIC (lower better=1533.814

4.15 Mediation Analysis

The more accepted approach in mediation testing is to use a bootstrap technique to determine significance. A bootstrap technique treats your data sample like a pseudo-population and then takes a random sample with replacement to determine if your indirect effect falls within a confidence interval. This study assessed the mediation role of Sensing Capabilities (SC) and Learning Capabilities (LC) on the realitonhsip between

Entrepreneurship Orientation and Firm Performance. The results showed a significant indirect effect of EO on FP through SC (**β**=0.250), p=0.019), supporting H6, H8 and H9. On the other hand, there was insignificant inderct effect of the EO on FP through SC (**β** =0.036, P=0.670) and (**β** = -0.004, p=0.974), not supporting H5 and H7. Furthermore, the mediation effect of Learning Capabilities (LC), on the other hand, showed that, there was a significant indirect effect of EO on FP through LC (**β** =0.339), p=0.000) and (**β** =0.656,p=0.000) supporting H11, H14, H8 and H9. Again, there was insignificant inderct effect of the EO on FP through SC (**β** =0.036, P=0.670) and (**β** = -0.004, p=0.974) supporting H10 and H13

4.15.1 Bootstrap Testing

Researchers are becoming concerned about the mediating variables because it may be utilized to comprehend how an independent variable affects a dependent variable and dissect causal relationships between constructs to identify the potential mechanism underlying such relationships. (Chen, 2016). In the case of running the analysis for the mediation role of Sensing Capabilities and Learning Capabilities in this research, a bootstrap approach was applied. It is a method that provides an estimate of magnitude of the indirect effects and examines the statistical significance of the indirect effects. AMOS software was used to perform the bootstrapping analysis. It can directly produce bootstrapped, bias corrected confidence interval for the indirect effect. The researcher calculates the estimated statistics figures such as regression weights setting by the recommended 5000-time bootstrapping. Table below (Table 11 to Table 12) show the upper and lower limit for the 95% confidence interval. These values correspond to the 2.5^{th} and 9.7^{th} percentile from the lower to higher rank -ordered estimate of the indirect effect.

Table 12: Mediation Effect of Sensing Capabilities on Firm Performance through Entrepreneurship Orientation (EO)

Hypothesized Path	Beta	P-Value	95% Bootstrap BC CI		Decision
			Lower Bound	Upper Bound	
Direct Model					
Autonomy ↗ Sensing	0.036	0.670			
Comm_Agg ↗ Sensing	0.224	0.005			
Proactive ↗ Sensing	0.622	***			
Risk_taking ↗ Sensing	- 0.004	0.974			
Innovative ↗ Sensing	0.079	0.489			
Mediation Model					
Sensing Capabilities ↗ Firm Performance					
Std. Indirect Effect	0.250	0.019	0.000	0.000	

Lower Bound (LB), Upper Bound (UB), Confidence Interval (CI), Biased corrected (BC)

In explaining the medaiton effects, the results of the direct model and the full medation model were compared. Since the direct effects were statistically significant, it could be concluded that Sensing Capabalities partially mediated the realtionahip between entrepreneuship orientation and firm performance. therefore, H8 & H9 were suppoted by significant statistical evidence. The others: H6,H7,H10 were not supported.

Table *13*: Mediation Effect of Learning Capabilities on Firm Performance through Entrepreneurship Orientation (EO)

Hypothesized Path	Beta	P-Value	95% Bootstrap BC CI		Decision
			Lower Bound	Upper Bound	
Direct Model					
Autonomy ↗ Learning	0.339	***			
Comm_Agg ↗ Learning	0.060	0.500			
Proactive ↗ Learning	0.656	***			
Risk_taking ↗ Learning	-0.037	0.773			
Innovative ↗ Learning	0.070	0.592			
Mediation Model					
Sensing Capabilities ↗ Firm Performance					
Std. Indirect Effect	-0.046	0.597	0.000	0.000	

Lower Bound (LB), Upper Bound (UB), Confidence Interval (CI), Biased corrected (BC)

In explaining the medaiton effects, the results of the direct model and the full medation model were compared. Since the direct effects were statistically significant, it could be concluded that leaning capabalities partially mediated the realtionahip between entrepreneuship orientation and firm performance. therefore, H13 & H15 were suppoted by significant statistical evidence. The others: H11,H12,H14 were not supported.

4.16 Moderation Analysis

A moderator variable is that variable that influenced the strength or direction of the relationship between two other variables. It helps to determine under what conditions the relationship between the two variables is stronger or weaker. If the moderator is categorical (non-metric) then the objective of the study was to test the significant difference in the estimates of the two groups (multi group analysis. However, in the case of this analysis, the moderator is continuous (metric), so the objective was to test the significant effects of the interaction term on the dependent variable (interaction effects). Moderation is where the direct influence of an independent variable on a dependent variable is altered or changed because of a third variable. This third variable, called the "moderator", can influence the strength (and sometimes sign) of the relationship from the independent variable to the dependent variable. A moderator is said to "interact" with the independent variable to determine the influence on the dependent variable. Thus, you will hear the term "interaction" when testing for moderation where the combined effect of the independent variable and the moderator is examined. There are numerous ways to test for moderation using SEM. The study assessed the moderating role of Government Support (GS) on the relationship between sensing capabilities and firm performance. The results revealed a positive and significant moderating impact of Government Support (GS) on the relationship between Sensing Capbilities (SC) and Firm Perfromance (FP) (b=0.421, p=0.000), supporting H16. Moderating analysis summary is presented in table 13

Table 14:Regression Weights: (Group number 1 - Default model)

		Estimate	S.E.	C.R.	P	Label
ZFIRM_PERFORMANCE	<--- ZGS1	.085	.060	1.416	.157	
ZFIRM_PERFORMANCE	<--- Interaction_term	.075	.065	1.157	.247	
ZFIRM_PERFORMANCE	<--- ZDC_SEN1	.421	.062	6.827	***	

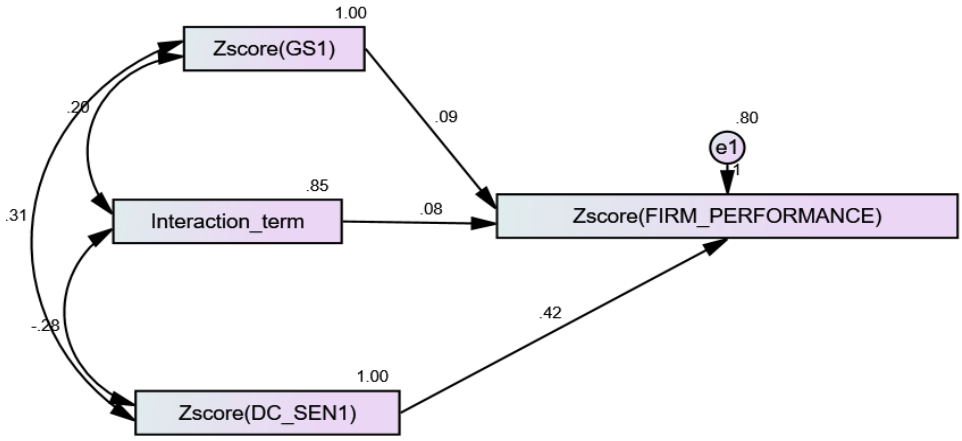
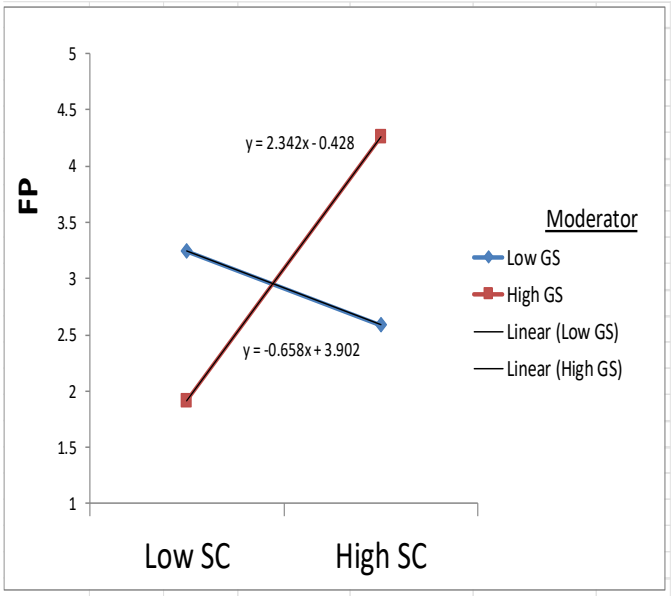


Figure 12:Moderation Effect of Sensing Capabilities.

Results of the simple slope analysis conducted to better understand the nature of the moderating effects. As can be seen in the figure 13, the line is much steeeper for low GS, this shows that at low elevle of (sc), the impact of GS on FP is much stronger in conjunction to high GS as shown in figure 8,. As the level of GS increased, the strength of the relationship between GS and SC decreases.



GS strengthens the positive relationship between SC and FP.

Figure 14: Two- way interaction effect.

Figure 15: Moderation Effect of Learning Capabilities.

On the second maoderating effect, The study also assessed the moderating role of Government Support (GS) on the relationship between Learning Capabilities and Firm Performance. The result revealed a positive and significant moderating impact of Government Support (GS) on the relationship between Learning capabilites and Firm Performance (b=0.401), p=0.000, supporting H17. The moderating analysis summary is presnted bewlo in table 14.

Table *15*: Regression Weights: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P	Label
ZFIRM_PERFORMANCE <--- ZGS1	.071	.062	1.148	.251	
ZFIRM_PERFORMANCE <--- Interaction_term_2	.064	.061	1.052	.293	
ZFIRM_PERFORMANCE <--- ZDC_LC2	.401	.065	6.131	***	

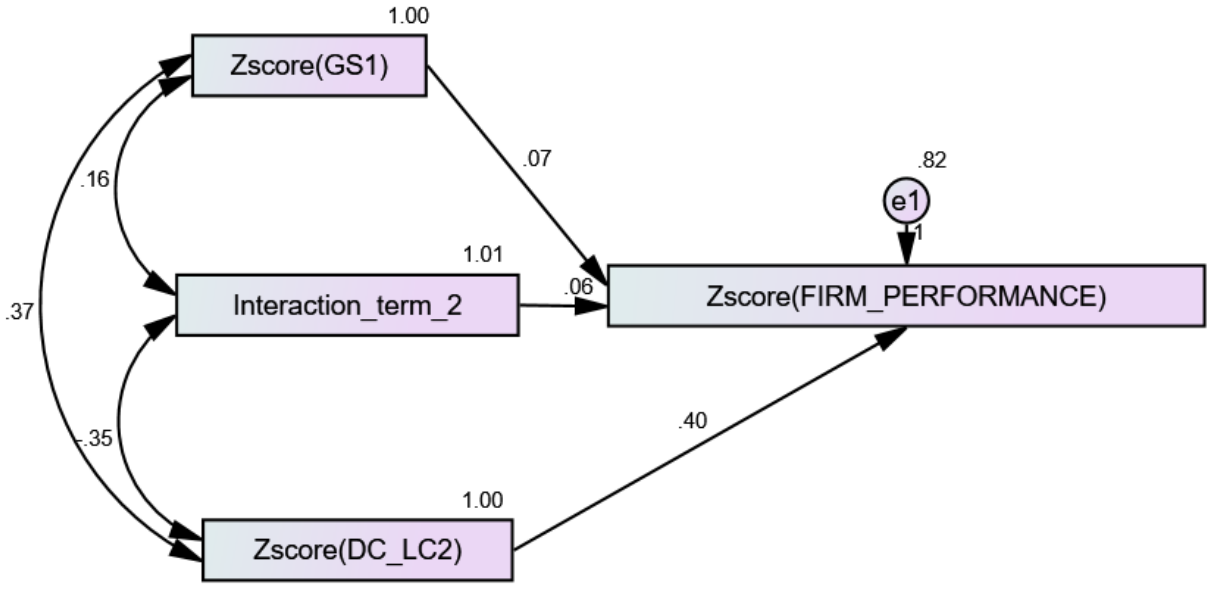
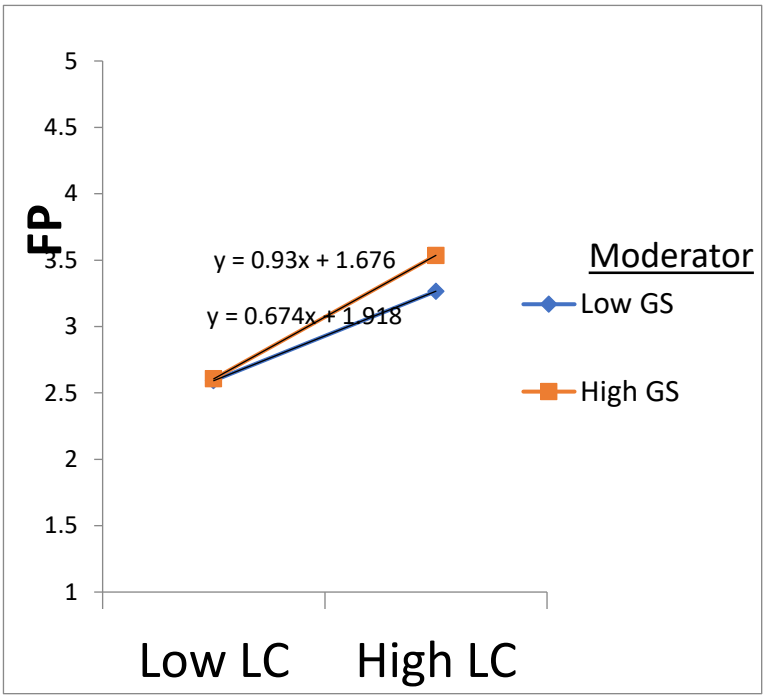


Figure 16: Moderation Effect of Learning Capabilities.

Results of the simple slope analysus conducted to better understand the nature of the moderating effects are show in figure 8. as can be seen in the fgiure 8, the line is much steeeper for low GS, this shows that at low level of (SC), the impact of GS on FP is

much stroger in conjunction to high gs. as shown in figure 18, as the level of GS increases, the strengthe of the relationship between GS and SC decreases

Figure 18 : Figure 16: Two- way interaction effect.



GS Strengthens the positive relationship between LC and FP

Overall reuslt of the hypotheses

Based on the findings of the study, the overall result from the hypotheses testing are summarised as in table 15 below

Table *16*: The Overall Results of Hypotheses Testing

Hypotheses	Results
H1: Innovation has a significant effect on Firm Performance	Not Supported
H2: Risk Taking, has a significant effect on Firm Performance	**Supported**
H3 proactiveness, has a significant effect on Firm Performance	Not Supported
H4 competitive aggressive has a significant effect on Firm Performance	**Supported**
H5 autonomy has a significant effect on Firm Performance	Not Supported
H6: Sensing Capabilities has a significant mediating role in between innovativeness and Firm Performance	Supported
H7: Sensing Capabilities has a significant mediating role in between risk-taking and Firm Performance	Not Supported
H8: Sensing Capabilities has a significant mediating role in between proactiveness and Firm Performance	**Supported**
H9: Sensing Capabilities has a significant mediating role in between competitive aggressiveness and Firm Performance	**Supported**
H10: Sensing Capabilities has a significant mediating role in between autonomy and Firm Performance	Not Supported
H11: Learning Capabilities has a significant mediating role in between innovativeness and FP	Not Supported
H12: Learning Capabilities has a significant mediating role in between risk taking and Firm Performance	Not Supported
H13: Learning Capabilities has a significant mediating role in between proactiveness and Firm Performance	**Supported**

H14: Learning Capabilities has a significant mediating role in between competitive aggressiveness and Firm Performance	Not Supported
H15: Learning Capabilities has a significant mediating role in between autonomy and Firm Performance	**Supported**
H16: Government Support has a moderating role in between Sensing Capabilities and Firm Performance	**Supported**
H17: Government Support has a moderating role in between Learning Capabilities and Firm Performance	Not Supported

4.17. Chapter Summary

In this chapter, an introduction was given regarding the analysis and statistical tests that were used for the data presentation and analysis. This was followed by a demographic analysis of the respondents (including sector of the SME, firm age, and number of employees). The frequency of the variables and the valid percentages of each of the item(s) on the table collected from the field work. The measure of variables examines the measurement properties of the variables along with the interrelationships between variables used in the research. The validity of the various CFA and the factor loadings were established, and the results of measurement model and structural modeling were also analyzed. The use of Amos tool to visualize the processed data was presented. This analysis evaluates the difference in the relationship in the proposed model. The following Amos steps were followed for the structural equation model: CFA>SEM>Bootstrap with all the stage of Amos analysis. Furthermore, data screening assessing the reliability and validity of the constructs were presented and the measurement model, path coefficient, mediation and moderation analysis of the research were captured and presented. (Do-Thi & Do, 2022)

Finally, the results, findings of the study as well as the hypotheses were presented. The findings of the study revealed that the element of the entrepreneurship orientation (Risk Taking, and competitive aggressive have significant direct effect on Firm Performance. In contrast, Innovation proactiveness, and autonomy was found to have insignificant direct effect on firm performance. In the case of mediation, the results also suggested that, sensing capability partially mediated the relationship between innovativeness, risk-taking, proactiveness, competitive aggressiveness and autonomy on firm performance; and the learning capabilities fully mediated the relationship between innovativeness, risk-

taking, proactiveness, competitive aggressiveness and autonomy on firm performance. Furthermore, the results also suggested that the moderation role of Government Support has a moderating role in between Sensing Capabilities and Firm Performance was positive and the Government Support has a moderating role in between Learning Capabilities and Firm Performance, supporting the hypotheses for the moderation.

CHAPTER FIVE
SUMMARY, DISCUSSION, CONCLUSION/IMPLICATIONS AND RECOMMENDATIONS

5.0 Summary of Major Findings

This chapter seeks to summarise the purpose of the study and is followed by the major findings relating to how entrepreneurship orientation impact on firm performance; the mediating role of dynamic capability using sensing and learning capabilities in between EO and FP; and moderating role of government support in between sensing and learning capabilities and firm performance. The purpose of the study was to largely investigate the current situation of entrepreneurship orientation in Ghana and to understand government support for the development of the SME sector and business promotion in the country. Inter alia, It was also meant to encourage managers and business owners to assess and respond to the challenges of making decisions in a turbulent business environment and discover alternative operations to match their business environment.

To test the hypothesis of the research, data were administered and taken from business organizations which were visible and ready to participate for the research. With the use of purposive sample of about 350 SME business operators located in the central district of major cities in Ghana were targeted, 298 were retrieved and used for the analysis. Besides, there were management involvement of some businesses and their department or functional level for the success rate of the questionnaire. Managers were requested to distribute some of the questionnaire among staff members. The study included five research questions. These were:

1) To examine the effect of Entrepreneurship Orientation (Innovativeness, Risk Taking, proactiveness, competitive aggressive, and autonomy) on Firm Performance in SME Businesses in Ghana.
2) To measure or observe the mediating role of Sensing Capabilities in between EO (Innovativeness, Risk Taking, proactiveness, competitive aggressive and autonomy) and firm performance.
3) To measure or observe the mediating role of Learning Capabilities in EO (Innovativeness, Risk Taking, proactiveness, competitive aggressive, and autonomy) and Firm Performance

4) To determine the moderating role of Government Support in between Sensing Capabilities and FP.
5) To determine the moderating role of Government Support in between Learning Capabilities and Firm Performance.

The findings of the study further demonstrated that the mediating role of dynamic capability are significant with the element of EO and FP; the learning capabilities are also significant with the elements of EO to FP. the moderating role of government support to sensing and learning capabilities showed that the hypotheses are statistically significant as the *p value* is less than 0.05.

5.1 Discussion of the Findings

Previous research has focused on the overall impact of EO on FP, with only a few studies examining the effects of specific EO constructs, such as competitive aggressiveness and autonomy (Lumpkin and Dess, 1996). More recent research has explored mediating and moderating factors, including learning orientation, (Hakala, 2013; Wang, 2008) innovativeness, (Hult, Hurley, & Knight, 2004) in other jurisdictions; However, in the context of Ghana, the goal of this research was to examine all the five elements of entrepreneurship orientation; Sensing and Learning Capabilities as mediating variables and government support as moderator. This section discusses the implications of the findings from each of the five questions and the 17 hypotheses formulated from the proposed model of the study.

Research question one.

1. ***What is the effect of Entrepreneurship Orientation (Innovativeness, Risk Taking, proactiveness, competitive aggressive, and autonomy) on Firm Performance?***

The findings from the research question one indicates that not all the five elements of entrepreneurship orientation are significant as far as the SME firms are concerned contrary to the assertion of these studies (Dwumah et al., 2024; Deku et al., 2021). Similarly, Amarteifio and Agbeblewu's 2020 study observed that not all of these elements significantly affect Small and Medium-sized Enterprises (SMEs). Previous studies suggested a positive relation between EO and firm performance, but recent findings in

Ghana show that only Competitive Aggressiveness and Risk-Taking matter. Autonomy, Innovativeness, and Proactiveness didn't show significant effects. Despite these challenges, EO remains an important concept in entrepreneurship research (Rauch et al., 2009).

Many reviews and assessments of the entrepreneurship research field have concluded that the development of a cumulative body of knowledge has been limited and slow because there is lack of agreement on many key issues regarding what constitutes entrepreneurship (e.g., Shane & Venkataraman, 2000), Additionally, and in case of Ghana, SMEs with fewer than ten employees face higher failure rates within the first six months of operation (Ackah & Vuvor, 2011). This vulnerability is consistent with patterns seen in other developing nations like South Africa, Nigeria, and Namibia (Halberstadt et al., 2021; Davidsson & Wiklund, 2001; Adeyele & Omorokunwa, 2016; (Nnadi, 2014). In summary, while EO remains an important concept in entrepreneurship research, its impact on firm performance varies across different dimensions and contexts. Understanding these nuances can guide SMEs toward better strategies and outcome.

Research question two.

2. ***What is the mediating role of SC in between EO (Innovativeness, Risk Taking, proactiveness, competitive aggressive, and autonomy) and Firm Performance?***

The findings for research question two revealed that, Sensing capabilities help businesses better scan, analyze, and integrate market knowledge, which improves their capacity for innovation. This leads to improved company performance. This talent helps businesses introduce new goods and services that successfully satisfy consumer needs, which boosts business performance. The mediation takes place when sensing abilities makes it easier to translate creative efforts into products that are profitable on the market. It was observed from the analysis in table 11 above that innovativeness, proactive and competitive have a significant mediation role in between EO and FP. Many works of literature stated that sensing capability is part of leaning or knowledge-related resources (Ardyan, E. (2016). Firms can better meet a variety of market demands than competitors by launching innovative products and services quickly (Parida et al. 2017). Also, businesses that use tools to scan and gather market intelligence can improve their innovativeness and firm performance (Najafi-Tavani et al. 2016). Further studies have shown that, there is a direct

relationship between sensing capability and firm performance (Tseng & Lee, 2014). However, the evidence is not fully consistent. there are studies that also explained the negative effects of sensing capability and performance (Olavarrieta & Friedmann, 2008). The relationship between Sensing Capability and firm performance may be mediated by proactiveness if the logic is that firms are very quick to anticipate and solve problems associated with the existing products / services of the business. For instance, they might facilitate improved information cooperation and sharing, which is essential for enhancing the firms 'exiting services in the market (Elenkov, Judge, & Wright, 2005; Gaur, Vasudevan, & Gaur, 2011)

Research question three.

3. ***What is the mediating role of LC in between EO (Innovativeness, Risk Taking, proactiveness, competitive aggressive, and Autonomy) and Firm Performance?***

As evidenced by the review of literature, Learning Capability enhances the ability of a firm to innovate by fostering employee creativity and knowledge. This capability supports the development and implementation of innovative solutions, thereby improving firm performance. The mediation occurs because LC enables the firm to effectively leverage its innovative efforts into competitive advantages and market success. From table 11 above, proactiveness and autonomy have a significant mediation role in between EO and FP. **Proactiveness** fosters a culture within the firm by encouraging knowledge acquisition, distribution, and utilization. This capability supports the firm's ability to anticipate future trends and act upon them before competitors, leading to improved performance. LC mediates this relationship by ensuring that proactive strategies are informed by relevant and up-to-date knowledge, thus enhancing their effectiveness (Chiva & Alegre 2009). Furthermore, While the literature has already demonstrated the importance of DCs to firm performance (Pezeshkan et al., 2016), our findings add to the understanding by showing that DCs can be appropriately institutionalized in a learning-oriented workplace over an extended period of time. This implies that SMEs that have a well-designed learning structure are more likely to innovate because they can increase their capacity to absorb information, integrate it, and reorganize in comparison to their competitors. Learning capabilities helps businesses to integrate capability to change internal processes in addition to providing new products or services that effectively meet external needs.

Research question four.

4. ***What is the moderating role of Government Support in between Sensing Capabilities and Firm Performance?***

The fourth objective of the research was to examine the moderating role of government support between sensing capabilities and firm performance among SME owners in Ghana. Hypothesis 16 shows that, the study finds a positive and significant moderating effect of government support on the relationship between sensing capabilities and firm performance ($b=0.421$, $p<0.000$). This means that as government support increases or decreases, it changes how strongly sensing capabilities can predict firm performance. The simple slope analysis further illustrates that the impact of government support on firm performance is stronger at lower levels of sensing capabilities. This indicates that SMEs with lower sensing capabilities benefit more from government support in enhancing their performance compared to those with higher sensing capabilities. This finding is consistent with previous research on support schemes received by SMEs such as programs usually aim to help SMEs through sustainable job creation in the developing economy at least to some extent (Cowling & Dvouletý, 2023; Matikonis & Graham, 2024); And other support that concentrate on individual support schemes (Calabrese et al., 2022; Rasmussen & Gulbrandsen, 2012; (Kumar & Subedi, 2023).

Research question five.

5. ***What is the moderating role of Government Support in between Learning Capabilities and Firm Performance?***

Similarly, a positive and significant effect is found for the moderating role of government support on the relationship between learning capabilities and firm performance ($b=0.401$, $t=6.131$, $p<0.001$). This suggests that government support also plays a crucial role in how learning capabilities influence firm performance. With the relationship being moderated by the level of government support, this result suggests that government support acts as an essential factor that can amplify the effects of sensing and learning capabilities on firm performance. Particularly, it can be inferred that at the lower levels of these capabilities, government support becomes even more critical, potentially providing the resources or environment needed for these firms to leverage their capabilities more effectively towards better performance.

5.2 Implications for Practice

After several decades of publications, the concept of entrepreneurial orientation (EO) has seen significant changes in discourse, emerging as a major construct in management and entrepreneurship literature. (Sultan et al., 2024). The following are the implication for practice:

1. The practical implications of this study underscore the nuanced relationship between entrepreneurial orientation (EO), dynamic capabilities (sensing and learning capabilities), and firm performance, particularly within the context of SMEs in Ghana. The study highlights the mediator between EO and FP to help SME better understand the business environment, examine the moderating effects of government support in the developing economy. the following are the key practical implications drawn from each of the study findings: for Entrepreneurial Orientation and Firm Performance: Not all aspects of EO (innovativeness, risk-taking, proactiveness, competitive aggressiveness, and autonomy) uniformly impact firm performance. This indicates that SMEs should prioritize certain dimensions of EO based on their specific context, industry, and capabilities to drive performance. Firms, especially in developing economies like Ghana, should consider tailoring their entrepreneurial efforts to focus on areas with the most significant potential impact on performance, recognizing that factors such as firm size and resource availability might influence the effectiveness of different EO dimensions.

2. In the case of the Mediating Role of Sensing Capabilities, the study offers insight into Sensing capabilities as an enhancing ability of SMEs to translate the entrepreneurial efforts into market-relevant actions that positively affect firm performance. This underlines the importance for SMEs to invest in capabilities that enable them to better understand and respond to market signals and changes. Developing strong sensing capabilities can serve as a bridge for turning entrepreneurial orientation into tangible performance outcomes, suggesting that firms should focus on improving their market intelligence, responsiveness, and adaptability. Again, the mediating Role of Learning Capabilities also plays a crucial role in mediating the relationship between EO and firm performance, emphasizing the need for SMEs to foster an environment that encourages learning, knowledge sharing, and innovation. By investing in learning and development,

firms can ensure that their entrepreneurial efforts are underpinned by a solid foundation of knowledge and insight, enabling them to navigate risks and capitalize on opportunities more effectively.

3. The study will also be useful to understand the Moderating Role of Government Support (Sensing Capabilities and Firm Performance). Government support significantly enhances the impact of sensing capabilities on firm performance, especially for SMEs with lower levels of these capabilities. This suggests that policymakers should design and implement support programs that specifically target the development of sensing capabilities among SMEs. Government initiatives could include providing access to market research, training programs on market analysis and responsiveness, and platforms for information exchange.

4. On the Moderating Role of Government Support through (Learning Capabilities and Firm Performance). Similarly, government support plays a crucial role in amplifying the effects of learning capabilities on firm performance. This implies that beyond financial assistance, government policies should also focus on fostering a knowledge-based support structure for SMEs. Support measures could include subsidies for training and development programs, incentives for innovation and knowledge sharing, and creating networks for collaboration among firms. In summary, the study highlights the complexity of factors that influence SME performance, including internal dynamics such as entrepreneurial orientation and dynamic capabilities, and external factors like government support. For SMEs in Ghana and similar contexts, focusing on developing strong sensing and learning capabilities, while leveraging government support where available, can provide a strategic path to enhanced firm performance. For policymakers, the findings suggest that creating an enabling environment that supports the development of these capabilities can significantly contribute to the growth and success of the SME sector.

5.3 Limitations & Recommendations for Further Research

The aim of this study was to investigate the situation of entrepreneurship orientation and firm performance in Ghana, the mediating role of dynamic capabilities and the moderating effect of government support. Data was collected to test the five research

questions relating to the goals. The information was studied, and many significant findings resulted from the examination of the data. The findings, although significant, have some limitations. One of the limitations was that, at the time of conducting this research, there was no public data available to researchers to access for use on SME database, so all effort to collate SME data from participants were difficulty. Another limitation was the absence of funds to sponsor the dissertation projects which could have allowed the researcher to pay particular attention to the variety of data classifications during the conduct of the survey. The following are the recommendations for future research:

1) The first question examines the effect of entrepreneurship orientation on firm performance in SME business in Ghana. The study in this format could have considered a comparative study across different economies: Future research could explore how the relationships among EO, dynamic capabilities, and firm performance differ across various economic contexts, especially comparing emerging economies with developed ones. This can help in understanding the universality or specificity of these constructs and their interrelations.

2) Another avenue of research could be Sector-Specific Studies: Different sectors may experience unique challenges and opportunities, affecting how EO and dynamic capabilities translate into firm performance as in the case of Ghana (Agyapong et al., 2024). In addition, as far as Ghana is considered, there are insufficient understating of how SMEs can leverage dynamic capabilities in response to specific market (Nyarku, 2018); lack of empirical evidence on the direct impact of dynamic capabilities on SME performance; limited studies on the relationship between entrepreneurship orientation and the development of dynamic capabilities in the Ghanaian context.

3) The study also discussed the mediation of dynamic capacity, having considered the adoption of Teece's construct on Sensing and Learning Capabilities; and the fact that these constructs were adopted to explain small and medium size enterprises (SMEs). With the increasing importance of digital technologies, future research should examine how dynamic capabilities performance in a new business model faced the challenge of innovation in a digital era. In a more recent academic

discussions, Teece (2020), there are still lack of knowledge about the impact of innovation technology resource on dynamic capabilities which also reflect the challenges of digital transformation of SMEs in most developing economy. Additionally, the researcher proposes the use of dynamic capacities to describe how businesses might adjust to a post-pandemic society that prioritizes resource concentration, distant employment, and service delivery. According to Herrmann et al. (2017), in extremely uncertain times, dynamic capabilities establish the frameworks required for organizations to respond to unforeseen events wherever they arise. Therefore, given the current state of the world, future research might focus on how dynamic capacities help to develop SME resilience in these uncertain circumstances. (Bitencourt et al., 2024)

4) Future research in EO should also include more detailed discussions on the role of environmental sustainability practices and integration of other mediating and moderating variables. The sustainability practice by means of **i**nvestigating how to incorporate environmental sustainability practices into EO and leveraging dynamic capabilities for sustainable innovations influence firm performance, especially in the context of increasing global emphasis on sustainability. the government of Ghana as in the case of many governments should explore and encourage firms with good business model. There should also be an increased academic interest in unveiling firm-based practices, processes, and capabilities leading to sustainable innovations (e.g., Ardito et al., 2019; Dangelico et al., 2013; Inigo et al., 2020; Reficco et al., 2018). And the other mediating and moderating variables such as organizational culture or structure and moderating variables, such as market turbulence that could influence the relationship between EO and firm performance in the sub-Saharan region.

5) Future research could collaborate with government agencies or business associations to gain access to a comprehensive database of SME owners in Ghana. This would allow for a more representative sample and robust findings. It is hoped by the researcher that, the national identification exercise which was started in the Ghana can pave ways for future access to databases to the academic environment which can go long way to assist future research activities of SMEs in the country contrary to the current experience of research activities on SME in

Ghana- which are based on the extent to which a researcher could source for data through individual means and without any database to crosscheck the sources of the data before any further analysis.

5.4 Conclusion

From the above recommendations for further research and based on the practical implications of studying the relationship among entrepreneurial orientation (EO), dynamic capabilities, and government support on SME performance in Ghana, several key conclusions can be derived. These are:

1) The importance of understanding EO, dynamic capabilities, and government support within varied economic, sectoral, and cultural contexts is paramount. This suggests that the effectiveness of these factors in enhancing firm performance may not be universally applicable without adjustments or considerations of the specific context. (Gligah & Zaidin, 2023). The relationship between EO, dynamic capabilities, and firm performance is not static. It evolves over time, underlining the need to capture the temporal dynamics and the long-term impacts of these relationships. The interactions among EO, dynamic capabilities, government support, and firm performance are complex. This complexity is augmented by the potential addition of other mediating and moderating variables, indicating that simplistic models may not fully capture the nuances of how SMEs can leverage EO and dynamic capabilities for improved performance. Additionally, the increasing importance of digital transformation and sustainability indicates that future research should incorporate these dimensions.
2) Understanding how digital and sustainable innovations can be integrated into EO and dynamic capabilities strategy could offer SMEs a competitive edge. The need to explore not just the positive but also the potential negative outcomes of adopting high levels of EO and dynamic capabilities suggests a more nuanced approach to strategic planning. SMEs and policymakers should be aware of and prepare for the risks associated with aggressive innovation and capability development strategies. these conclusions reflect the multifaceted nature of leveraging entrepreneurship orientation and dynamic capabilities for enhancing SME performance. They underscore the need for nuanced, context-specific, and forward-looking approaches that consider the evolving global business landscape,

digital transformation, sustainability, and the complex interplay of individual, organizational, and environmental factors.

3) Sensing capability acts as a critical mediator that transforms entrepreneurship orientation dimensions into performance outcomes. It does so by enhancing the firm's ability to interpret and respond to market and environmental information, making EO efforts more effective and aligned with external opportunities and threats. This mediation underscores the importance of developing and maintaining strong sensing capabilities as a means to leverage the full potential of EO for firm performance.
4) Learning Capability plays a crucial mediating role in the relationship between the dimensions of Entrepreneurship Orientation and Firm Performance. It does so by enhancing the firm's ability to learn from, adapt to, and capitalize on internal and external changes, innovations, and competitive dynamics. This mediation underscores the importance of developing strong learning capabilities as a means to leverage the full potential of entrepreneurial orientation for improving firm performance. LC acts as a critical bridge that transforms EO dimensions into performance outcomes through the mechanisms of knowledge acquisition, assimilation, transformation, and exploitation.

5) Government support is a significant moderator that can enhance the positive effects of sensing and learning capabilities on firm performance. This highlights the importance of government policies and assistance in fostering an environment where firms can better translate their capabilities into successful performance outcomes.

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[Appendix 1]

Questionnaire

Dear Sir/Madam,

Thank you very much for your participation in this study which seeks to investigate the mediating effects of dynamic capability on the relationship between entrepreneurship orientation and firm performance; and the moderating effect of government support to small and medium enterprises (SMEs) in Ghana.

The questionnaire is divided into three sections (A, B, and C), each with explicit instructions on how to answer the questions. Section "A" is on demographic information about the firm and the survey respondents. The purpose of these questions is to examine the SMEs' and respondents' backgrounds, as some have suggested that ownership and management in SMEs are often linked and can have an equal impact on performance. Section "B" focuses on the specific research constructs (e.g., Entrepreneurship Orientation, Dynamic Capability, and Government support). The seven-point Likert scale would be used for evaluating the construct. Section "C" would collect financial data as a Firm Performance (FP) measure.

The study is undertaken by a Ph.D. student of Corvinus University of Budapest, Hungary. We can assure you that your responses will be treated in the strictest confidence, with the results collected being anonymised and used for statistical and academic purposes only. Kindly note that you are responding to this survey as someone who holds a senior/managerial position in his/her company (preferably, CEO, managing director, marketing manager, operational manager, area manager or similar position).

The questionnaire has specific instructions to follow and scales to use to indicate your responses. Please reflect on your personal experience in your company and its operating environment to respond to the statements in the questionnaire. Although some statements appear quite similar, they are also unique in many ways, so kindly do well to respond to each statement. The questionnaire will take about 15 minutes to complete, and we think it will be more appropriate if you respond to it at your convenient time. All questions and concerns about the study can be directed to Sadick Alhaji Husseini and through his email address: *husseini.alhaji@stud.uni-corvinus.hu*.Once again, we are most grateful that you have taken your time to participate in this study.

Kindly indicate your consent for participation here: ☐ ***I agree*** ☐ ***I disagree***

▱

SECTION A

1. Which of the following sectors does your company operate? ☐ Manufacturing ☐ Wholesaling/retailing ☐ Agriculture and agri-business ☐ Hospitality (including hotels, hostels, and restaurants) ☐ Financial services ☐ Health facility/services ☐ Extraction, drilling & mining ☐ Service provider ☐ Other (kindly indicate_____
2. How many years (approximately) has your company been in existence? position ☐ 0 to 5 ☐ 6 to 10 ☐ 11 to 15 ☐ 16 to 20 ☐ 21 to 25 ☐ 26 to 30 ☐ 31 +
3. How many full-time employees does your company have currently? ☐ 1 to 9 ☐ 10 to 99 ☐ 100 to 499
4. Please, what is your education level? ☐ Up to SHS / A'level/ O'level ☐ Up to Diploma/HND ☐ Up to 1st Degree ☐ Up to 2nd Degree ☐ Up to PhD
5. Gender? ☐ Male ☐ Female
6. Age group? ☐ 20 to 29 ☐ 30 to 39 ☐ 40 to 49 ☐ 50 or more
7. What is your position in your company? ☐ CEO ☐ General manager ☐ Managing Director ☐ Other top management position (kindly indicate_____
8. How long (in years) have you held this current position ☐ 0 to 5 ☐ 6 to 10 ☐ 11 to 15 ☐ 16 to 20 ☐ 21 to 25 ☐ 26 to 30 ☐ 31 +
9. ***9.***

SECTION B

K*indly use the respective scales provided in this section to circle a number that best represents your opinion on each statement.*

SCALE: (1) Strongly Disagree (2) Disagree (3) Somewhat Disagree (4) Neutral (5) Somewhat Agree (6) Agree (7) Strongly Agree *What is your firms' approach to innovation?*	*Strongly disagree*						*Strongly agree*
In my firm, very many new product lines or services has marketed.	1	2	3	4	5	6	7
In my firm, changes in product or service lines have been mostly quite dramatic.	1	2	3	4	5	6	7
In my firm, there is a long-term commitment to invest in new technology, R&D, and continuous improvement.	1	2	3	4	5	6	7
My firm actively introduces improvements and innovations.	1	2	3	4	5	6	7
My firm is creative in its methods of operation.	1	2	3	4	5	6	7
My firm seeks out new ways to do things.	1	2	3	4	5	6	7

How does your firm respond to new market opportunities?	*Strongly disagree*						*Strongly agree*
My firm typically initiates action which the competition then responds to.	1	2	3	4	5	6	7
My firm is very often the first business to introduce new products/services, administrative techniques, operating technologies, etc.	1	2	3	4	5	6	7
My firm is close monitoring technological trends and identifying future needs of customers.	1	2	3	4	5	6	7
My firm excel at identifying opportunities.	1	2	3	4	5	6	7

How does your firm handle risk?	*Strongly disagree*						*Strongly agree*
My firm invests in high-risk projects (with chances of very high return).	1	2	3	4	5	6	7
My firm adopts bold, wide-ranging acts necessary to achieve the firm's objectives.	1	2	3	4	5	6	7
My firm commits a large portion of its resources in order to grow.	1	2	3	4	5	6	7

My firm invests in major projects through heavy borrowing.	
In my firm, people in our business are encouraged to take calculated risks with new ideas.	
My firm emphasizes both exploration and experimentation for opportunities.	

What is your firm's approach to competition?	*Strongly disagree*						*Strongly agree*
My firm typically seeks to a competitive "undo-the-competitors" posture.	1	2	3	4	5	6	7
My firm is very aggressive and intensely competitive.	1	2	3	4	5	6	7
My firm adopts a price-cutting strategy to enhance a competitive position.	1	2	3	4	5	6	7
My firm copies the business practices or techniques of successful competitors to enhance a competitive position.							
My firm use of unconventional strategies to challenge competitors.							

How does your firm coordinate individual and team efforts?							
My firm supports the efforts of individuals and/or teams that work autonomously.	1	2	3	4	5	6	7
In my firm, the best results occur when individuals and/or teams decide for themselves what business opportunities to pursue.	1	2	3	4	5	6	7
In my firm, individuals and/or teams pursuing business opportunities make decisions on their own without constantly referring to their supervisors.	1	2	3	4	5	6	7
In my firm, employee initiatives and input play a major role in identifying and selecting the entrepreneurial opportunities.	1	2	3	4	5	6	7

In this section we ask you about your practices to respond to market trends, identifying information, and organization of activities within your firm.

How does your firm respond to market trends and new technologies?	Strongly disagree						Strongly agree
We frequently scan the environment to identify new business opportunities.	1	2	3	4	5	6	7
We periodically review the likely effect of changes in our business environment on customers.	1	2	3	4	5	6	7

We often review our product development efforts to ensure they are in line with what the customers want.	1 2 3 4 5 6 7
We devote a lot of time implementing ideas for new products and improving our existing products	1 2 3 4 5 6 7
How does your firm revamp existing operational capabilities with new knowledge in the following stated routine?	Strong disagree Strongly agree
We have effective routines to identify, value, and import new information and knowledge.	1 2 3 4 5 6 7
We have adequate routines to assimilate new information and knowledge.	1 2 3 4 5 6 7
We are effective in transforming existing information into new knowledge.	1 2 3 4 5 6 7
We are effective in utilizing knowledge into new products.	1 2 3 4 5 6 7
We are effective in developing new knowledge that has the potential to influence product development.	1 2 3 4 5 6 7

How does your firm receive inputs from individual knowledge into its operations?	
We are forthcoming in contributing our individual input to the group.	1 2 3 4 5 6 7
We have a global understanding of each other's tasks and responsibilities.	1 2 3 4 5 6 7
We are fully aware who in the group has specialized skills and knowledge relevant to our work	1 2 3 4 5 6 7
We carefully interrelate our actions to each other to meet changing conditions.	1 2 3 4 5 6 7
Group members manage to successfully interconnect their activities	1 2 3 4 5 6 7

How does your firm deploy tasks, resources? and activities in the new operational capabilities?	
We ensure that the output of our work is synchronized with the work of others.	1 2 3 4 5 6 7
We ensure an appropriate allocation of resources (e.g., information, time, reports) within our group.	1 2 3 4 5 6 7
Group members are assigned to tasks commensurate with their task-relevant knowledge and skills.	1 2 3 4 5 6 7

We ensure that there is compatibility between group members expertise and work processes.	1 2 3 4 5 6 7
Overall, our group is well coordinated.	1 2 3 4 5 6 7

What is your respond to government policy to firms in Ghana?

According to the situations in your firm in the past three years, to what extent do you agree with the following statements?	Strongly disagree Strongly agree
The central and local governments have provided us with necessary technology information and support	1 2 3 4 5 6 7
The central and local governments have provided us with support to seek for financial resources	1 2 3 4 5 6 7
The central and local governments have provided us with beneficial policies and projects	1 2 3 4 5 6 7
The central and local governments have provided us with direct financial support such as tax reduction and subsidy	1 2 3 4 5 6 7

SECTION C

Performance items (Overall Performance) **Scale: (1) Much More (2) More (3) Much Better (4) Better (5) Same or Less (6) Bad (7) Much Worse** **How does your firm compare its performance to competitors with regards to the following aspects?**	Much More Much Worse
Profitability	1 2 3 4 5 6 7
Employment growth	1 2 3 4 5 6 7
How does your firms compare its performance to competitors with regards to following aspect to marketing and sales?	
Average market share growth	1 2 3 4 5 6 7
Average sales volumes (units) growth	1 2 3 4 5 6 7
Average turnover growth	1 2 3 4 5 6 7

How does your firm compare its performance to competitors with the regards to the following?							
Percentage of defects	1	2	3	4	5	6	7
Cost per operation hour	1	2	3	4	5	6	7
Capacity utilization	1	2	3	4	5	6	7
Range of products and services	1	2	3	4	5	6	7
Utilization of economic order quantity	1	2	3	4	5	6	7
How does your firm compare its performance to competitors with the regards to the following aspect of R&D?							
Customer satisfaction / market response	1	2	3	4	5	6	7
Percentage (%) of products succeeding in the market	1	2	3	4	5	6	7
Professional esteem to customers	1	2	3	4	5	6	7
Agreed milestone / objective Met	1	2	3	4	5	6	7
Number of products/ projects completed	1	2	3	4	5	6	7
Speed	1	2	3	4	5	6	7
Efficiency / keeping within budget	1	2	3	4	5	6	7
Quality of outputs/ work	1	2	3	4	5	6	7
Behaviour of people involved in R& D activities	1	2	3	4	5	6	7
No patents	1	2	3	4	5	6	7
No ideas / findings	1	2	3	4	5	6	7
Creativity / Innovation level	1	2	3	4	5	6	7
Network building activities of the firm	1	2	3	4	5	6	7
Expected or realised IRR/ROI	1	2	3	4	5	6	7
Percentage (%) of sales by new products	1	2	3	4	5	6	7
Profit due to R&D	1	2	3	4	5	6	7
Market share gained due to R&D	1	2	3	4	5	6	7

To what extent do you disagree or agree with the following statements?	***Strongly disagree***	***Strongly agree***

The questionnaire deals with issues I am very knowledgeable about	1 2 3 4 5 6 7
I am completely confident about my answers to the questions	1 2 3 4 5 6 7
I am confident that my answers reflect the company's situation	1 2 3 4 5 6 7

Please provide your email address here in case you are interested in a summary report of the study's findings……

Thank you for your time.

Correspondence with the State Institution in Charge of Business Development (i.e.: Ministry of Business Development) And Organisation Contacted For Collaboration On the Topic For Data Collection Purposes.

Business Related Discussion & Research on Entrepreneurship Orientation in Ghana

Husseini Sadick Alhaji <husseini.alhaji@stud.uni-corvinus.hu>

Mon 10/3/2022 6:23 PM

To:mobd@mobd.gov.gh <mobd@mobd.gov.gh>

Dear Sir/Madam !

I am a PhD candidate and a Ghanaian researching on this topic: *"Entrepreneurship Orientation And Firm Performance: The Mediating Effect of Dynamic Capability and Government Support to SME Businesses In Ghana".*

I use this opportunities to reach to your outfit for the purposes of building an interface with you for collaborations on how the ministry can assist me (not money) to launch and collect data for my topic. I would be happy to receive your response, and further discuss the content of my work in terms of how it can benefit the country.

Best Regards,
Sadick Alhaji Husseini

PhD Candidate
Doctoral School of Business & Management http://www.uni-corvinus.hu/index.php?id=57938
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BUSINESS DISCUSSION & COLLABORATION WITH YOUR OUTFIT

Husseini Sadick Alhaji <husseini.alhaji@stud.uni-corvinus.hu>

Wed 10/5/2022 3:49 PM

To:info@ghanaceosummit.com <info@ghanaceosummit.com>

Dear Organisers!

I hope this message finds you well

I am a PhD candidate and a Ghanaian studying abroad. I am research on the topic: *Entrepreneurship Orientation And Firm Performance: The Mediating Effect of Dynamic Capability and Government Support to SME Businesses In Ghana.*

I would be happy for collaboration with your outfit and discussion on business related matters with key emphasis on **entrepreneurship** and other interesting review works including :

(1) Getting access to some of the annual programs held by your outfit and the content of the speeeches which were presented at those summits and reviewed for academic related discussion
(2) Government documents in relation to business discusssion (if any); and in most of the summit you organised in the past and in some instances, the possible ones to be organised in future
(3) Discuss and look for a 'win-win' situation on how to work on some of your data for research analysis and possible publication in the academic journals; and any other relevant consideration for your business interest.

Best Regards,
Sadick Alhaji Husseini

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2. Adam, D. R., & Husseini, S. A. (2023). Customer Employee Exchange and Firm Innovative Behavior Among SMEs in Ghana: The Mediating Role of Customer Knowledge Management. *REGIONAL AND BUSINESS STUDIES*, *15*(2), 37–58.

3. Husseini, S. A. (2022). Entrepreneurship orientation in an emerging market: A grounded theory approach. *Journal of Emerging Trends in Marketing and Management*, *1*(1), 9–17.

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