

KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY, KUMASI

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**Effect of Supplier Selection on Procurement Performance: the moderating role of
stakeholder Orientation**

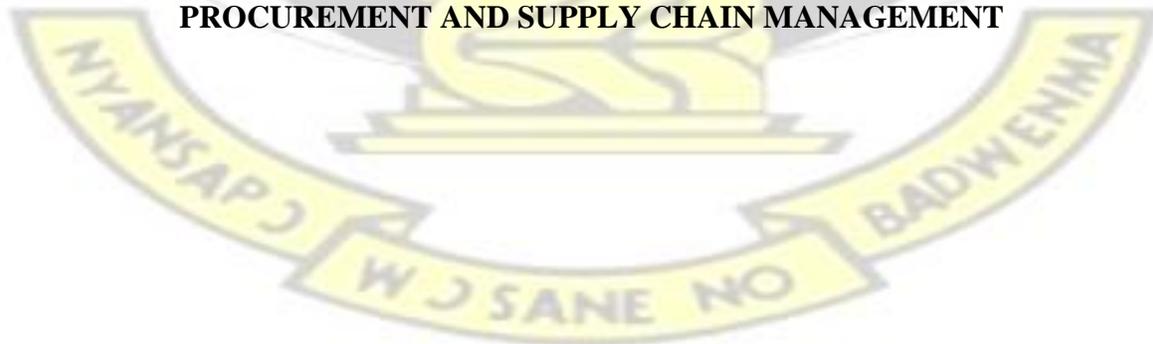
By

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A Thesis submitted to the Department of Supply Chain and Information Systems, School of
Business in partial fulfillment of the requirements for the degree of

**MASTER OF SCIENCE IN
PROCUREMENT AND SUPPLY CHAIN MANAGEMENT**



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DECLARATION

I hereby declare that this submission is my work towards the Masters of Science in Logistics and Supply Chain Management and that, to the best of my knowledge, it contains no material previously published by another person nor material which has been accepted for the award of any other degree of the University, except where due acknowledgment has been made in the text.

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DEDICATION

I dedicate this thesis to the Almighty God for the Grace bestowed upon me throughout the program duration and to my sweet mother Margaret Adoma Marfo and my lovely sister Ama Nehia Boakye for their encouragement and contribution in diverse ways towards the completion of this thesis.



ACKNOWLEDGMENT

Praise and thanksgiving to God for His protection, guidance and favor throughout my thesis work to complete this research successfully.

The completion of this thesis could not be possible without the participation and assistance of so many people whose names may not all be listed. Their contribution in diverse ways is sincerely appreciated. I would like to sincerely thank the Principal of Methodist College of Education, Very Rev. Solomon Kwame Gyamerah and my Supervisor Prof. Kwame Owusu Kwateng, whose guidance and permission helped me to complete this thesis.

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ABSTRACT

The primary objective of this research is to analyze the moderating impact of stakeholder orientation on the connection between supplier selection and procurement performance in Ghana's public sector. Three separate goals were presented as solutions to the issues mentioned in the problem statement. Researchers employed a cross-sectional survey design and a quantitative approach that merged descriptive research design to achieve their aims. Participants in the research included high-level executives such as purchasing agents, department heads, warehouse supervisors, and members of entity tender committees. A total of 138 public sector workers in Ghana were surveyed using a standard questionnaire. Participants were chosen using a combination of convenience and purposeful sampling methods. Structural Equation Modeling in the form of SmartPLS 4 was used to verify or disprove the study's hypotheses. Summary statistics (descriptive statistics) were utilized to summarize the data. According to the results of the research, supplier selection significantly affects the procurement performance of the public sector. Findings also showed that stakeholder orientation contributes considerably to procurement performance in the public sector, although stakeholder orientation did not moderate the connection between supplier selection and procurement performance. Findings suggest that managers in the public sector may improve their procurement performance by committing to and focusing on supplier selection and stakeholder orientation. The study recommended that public sector company managers refine their supplier selection processes by zeroing in on the suppliers most likely to help them achieve their objectives by analyzing supply performance.

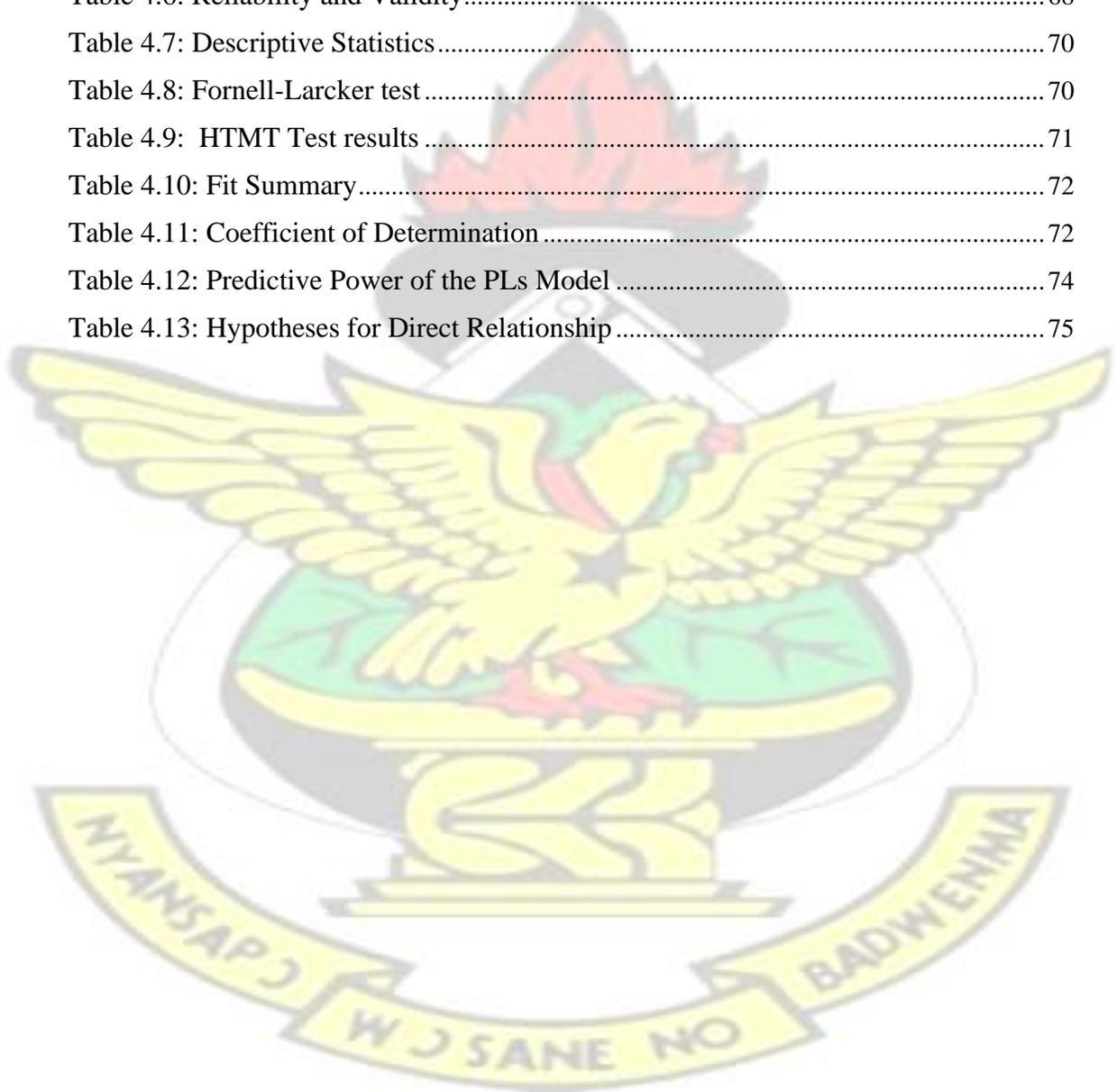
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CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

The role government procurement constitutes as stimuli for development has been an issue of particular interest over the past decade (Odero and Ayub, 2017; Liu et al., 2019; Patrucco et al., 2019; Raj et al., 2020). Public procurement provides varied contributions among countries, regions as well as sectors to underlying operations in health, environment, ICT, defense or infrastructure, etc (Lember et al., 2014; Edquist, 2015; 2016; Maria et al., 2019). Procurement, therefore, plays an integral role in any establishment whether public or private. According to OECD (2017), procurement constitutes approximately 15% - 20% GDP of developed economies. Governments in both developed and developing economies attach significant attention to the issue of procurement. Owing to this, various governments across the globe have attempted to reform and implement sound procurement policies and practices to enhance value for many when procuring goods and services required to meet public needs (Osei-Tutu et al., 2010; Hazarika and Jena, 2017; Kinuthia et al., 2019). Unfortunately, public procurement outcomes or performance remain challenged despite various procurement reforms in developing economies, especially Sub Sahara Africa which Ghana is no exception (Schapper et al., 2006; Basheka and Bisangabasaija, 2010; Uyarra et al., 2014; Hazarika and Jena, 2017).

Efficiency and effectiveness remain two important measures of procurement performance. According to Anane and Kwarteng (2019), effective procurement occurs when previously defined goals and objectives regarding the acquisition of goods and services in any organization are met. This term connects actual and planned performance, which is used to

make a decision. Following that, effective procurement connects planned and real obtained resources to achieve established goals and objectives. Achieving efficiency in public procurement is not just an issue of the buying entity but a joint effort of the supplier and buyer. This demonstrates that both the buyer and supplier are two important entities in ensuring efficiency in public procurement. However, achieving efficiency and effectiveness in procurement cannot be within using the appropriate supplier selection method.

In achieving efficiency and effectiveness in procurement, a supplier's capabilities must first be evaluated. This is done through a variety of actions known as supplier selection (Koufteros et al., 2012; Kariuki et al., 2018). As businesses become more dependent on their suppliers, supplier selection remains essential (Amoako-Gyampah et al., 2019). These suppliers' capabilities serve as important resources in the growth of the buyer's capabilities and performance. According to earlier research (Durmi, 2019; Amoako-Gyampah et al., 2019), the most important supply management procedure for achieving product quality is supplier selection. The ability of a buyer/ firm to develop or improve its capability in a strategically significant domain, such as quality, by leveraging supplier capabilities in quality, may, however, depend not only on its capacity to choose a qualified supplier in the quality domain but also on its capacity to successfully integrate the supplier into the firm's operations and network (Manyega and Okibo, 2015). In doing this, the buying organization must consider both strategic and operational issues surrounding the supplier. Strategic supplier selection and operational supplier selection are two essential ways of achieving enhanced procurement management. Prior studies (Zunk et al., 2020; Woschank et al., 2022) have advanced that to provide a consistent and affordable supply of the goods and

services needed for the manufacturing process, one of the most crucial functions in an organization is strategic supplier selection. Particularly, key suppliers are crucial to the company's core capabilities, long-term sales strategy, and operations planning strategy when they work closely with the organization (Durst, 2011; Zunk and Koch, 2014; Zunk et al., 2020). Again, Cho et al. (2021) and Shen and Yu (200) also indicated that operational supplier selection also remains key, especially when dealing with the supplier of essential products that drives the core activities of the organization. The discussion above clearly shows that achieving superior procurement performance cannot be at the expense of Strategic supplier selection and operational supplier selection. Although quite enough is documented on the role of supplier selection in procurement literature (Manyega, 2015; Manyega and Okibo, 2015; Kumar et al., 2018; Van der Westhuizen et al., 2020; Schramm et al., 2020; Yan et al., 2020). It is unclear how strategic supplier selection and operational supplier selection may influence procurement performance in the Ghanaian public sector. This study is therefore conducted to examine how strategic supplier selection and operational supplier selection influence procurement performance in Ghana.

1.2 Statement of the Problem

As stated earlier, procurement consumes a significant part of the government budget, hence improving procurement performance will lead to great savings as well as enhance service delivery in the public sector. The procurement functions in the public sector especially in Africa have been ineffective and inefficient characterized by massive corruption (Cherop, 2016). Extant literature (Damoah et al., 2018; Rasul et al., 2018; Jacob and Lawan, 2020; Muhwezi et al., 2020; Gray, 2021) argues that the poor procurement performance in the public sector could be traced to poor supplier selection, poor contract management, poor

planning, resolve to allocate staff completely, corruption and conflict of interest. Additionally, the World Bank (2001) identified corruption and poor supplier selection as the major obstacle to public procurement performance. Despite varied interventions to curb poor procurement performance, especially in public sector organizations in emerging economies, the situation in Ghana continues to worsen. Hence, therefore, has been several calls on both industry and academia to look for a lasting remedy to remedy the poor procurement issues in the public sector. In response, strategic supplier selection and operational supplier selection have emerged as essential strategies in procurement management that could be useful in enhancing procurement performance.

Strategic and operational supplier selection is not new in procurement management (Shen and Yu, 2009; Koufteros et al., 2012; Kariuki et al., 2018; Durmić, 2019; Cho et al., 2021; Van der Westhuizen and Ntshingila, L., 2020).

Despite the growth of discourse on strategic and operational supplier selection, to the best of the researchers' knowledge, no studies so far have been conducted to examine how strategic and operational supplier selection may influence procurement performance. Additionally, Woschank et al. (2022) also indicated the lack of empirical evidence to support the claim of strategic supplier selection in enhancing supplier performance. Apart from the lack of clear understanding regarding how strategic and operational supplier selection may influence procurement performance, earlier studies lack empirical and theoretical support (Xenophon et al., 2012). Though managers in public sector organizations take strategic and operational supplier decisions, it remains unclear which could be more useful in achieving procurement performance in the public sector. This study seeks to fill the theoretical gap by examining how strategic and operational supplier

selection may influence procurement performance through the resource-based view perspective. The author views the ability of procurement managers to make strategic and operational supplier choices remain essential internal resources that organizations may ride on to achieve supplier performance.

Finally, the applicability of earlier findings in terms of process improvement and performance improvement appears to be scanty due to the focus of earlier studies on limited factors that impact supplier selection. Thus drawing from the contingency perspective, procurement performance may not just be enhanced through supplier selection but also the role of stakeholders in the procurement process. This study, therefore, envisages that since procurement in the public sector involves multiple stakeholders, the orientation of stakeholders may play an essential role in delivering superior procurement performance through supplier selection (strategic and operational supplier selection). This study closes the aforementioned gaps by examining how supplier selection (strategic and operational supplier selection) and stakeholder orientation may individually affect procurement performance and the moderating role of stakeholder orientation in the direct link between supplier selection (strategic and operational supplier selection) and procurement performance. Being among few attempts to examine the phenomena, this study makes a twofold contribution to procurement literature. The direct relationship between supplier selection (strategic and operational supplier selection), stakeholder orientation, and procurement performance which has not yet been empirically validated is explored in this study and further expands the theoretical lens of procurement literature on how procurement officers may take decisions to enhance procurement in the public sector. Secondly, this study introduces stakeholder orientation as a moderating variable, which

expands the context of research on procurement performance and facilitates the understanding of the boundary conditions that promote procurement performance.

1.3 Objective of the Study

The main objective of this study is to investigate how supplier selection (strategic and operational supplier selection) influences procurement performance in the Ghanaian Public sector as well as the moderating role of stakeholder orientation. Based on gaps identified and discussed in the problem statement three specific objectives were put forward. These objectives include

1. To examine the effect of supplier selection (strategic and operational supplier selection) influence procurement performance.
2. To evaluate the relationship between stakeholder orientation and procurement performance.
3. To investigate the moderating role of stakeholder orientation on the relationship between supplier selection and procurement performance.

1.4 Research Questions

1. What is the effect of supplier selection (strategic and operational supplier selection) influence procurement performance?
2. What is the relationship between stakeholder orientation and procurement performance?
3. Does stakeholder orientation moderate the relationship between supplier selection and procurement performance?

1.5 Significance of the Study

The study is conducted basically on the effect of supplier selection (strategic and operational supplier selection) on public procurement performance, and the moderating role of stakeholder orientation with evidence from the Ghanaian Public Sector. The outcome of this study will make significant practical and theoretical contributions. The nature of the study is such that it is categorized into two folds concerning its benefit to public procurement and its conceptuality. First and foremost, the nature of the study will benefit these organizations by contributing immensely towards how these organizations will come out with policies that will ensure that unethical issues that confront them are addressed with respect to the recommendations that will be made available in the studies. Again, this study will also contribute to firms with institutional frameworks that by far will ensure that relational issues relating to procurement performance can be resolved in these frameworks.

Theoretically, the study will also add to the literature in academia especially in Sub Sahara Africa by providing direction on procurement performances among procurement professionals of diverse cultural orientations. This study is an attempt to fill the chasm.

Resource Based View and Principal Agency theory will be employed to understand the phenomena in the Ghanaian context.

The literature again revealed that most research in procurement or buyer-supplier relationships has predominantly been done in private-sector organizations. However, there is very little empirical research of this nature in developing countries in Africa. This study sees this gap as one worth investigating especially in Ghana which is known to account for more than 50% of the national budget.

1.6 Research Methodology

The study employed a positivist research approach that made use of a quantitative methodology. Again, the study also adopted both descriptive and explanatory research designs. Combining these two designs enabled the researcher to describe the study variables in the Ghanaian context and also explore the relationship among the variables at the aggregate level. The study population comprised all public procurement departments in the various Ministries, departments, and Agencies. A sample of One hundred public institutions will be included in the study. After selecting the organization, the researcher will further have used purposive sampling method to select individuals that are directly involved in the subject under investigation (procurement managers and officers). The study conducted an extensive literature review to help to discover the academic writings supporting the relevance of the topic and the research hypotheses. Again, the study used primary sources of data to validate the results produced in the literature through field surveys using questionnaires adopted from previously validated instruments. After the data collection, the primary data that has been gathered from the field will be vetted for accuracy and reliability. The questionnaires that have been adequately filled will be coded into excel for analysis. This study will employ two data analysis approaches i.e. descriptive and inferential analysis using multivariate data analyses such as Structural Equation Modelling (SEM) and factor analyses in order to fulfill the set objectives in chapter one. Descriptive analysis will be based on information provided by respondents concerning their organization (demographical data), which include the profile of the organization and the respondents. The essence of the descriptive analysis is to test for normality and this includes frequencies, percentages, means, skewness, and kurtosis statistics. The motive of

this analysis is to ensure that the data gathered are suitable for covariance-based-SEM analysis. It is done to check for missing data, outliers, and data distribution (Hair et al., 2017). The inferential analysis will be used to test the hypothesis in the study.

1.7 Scope of the Study

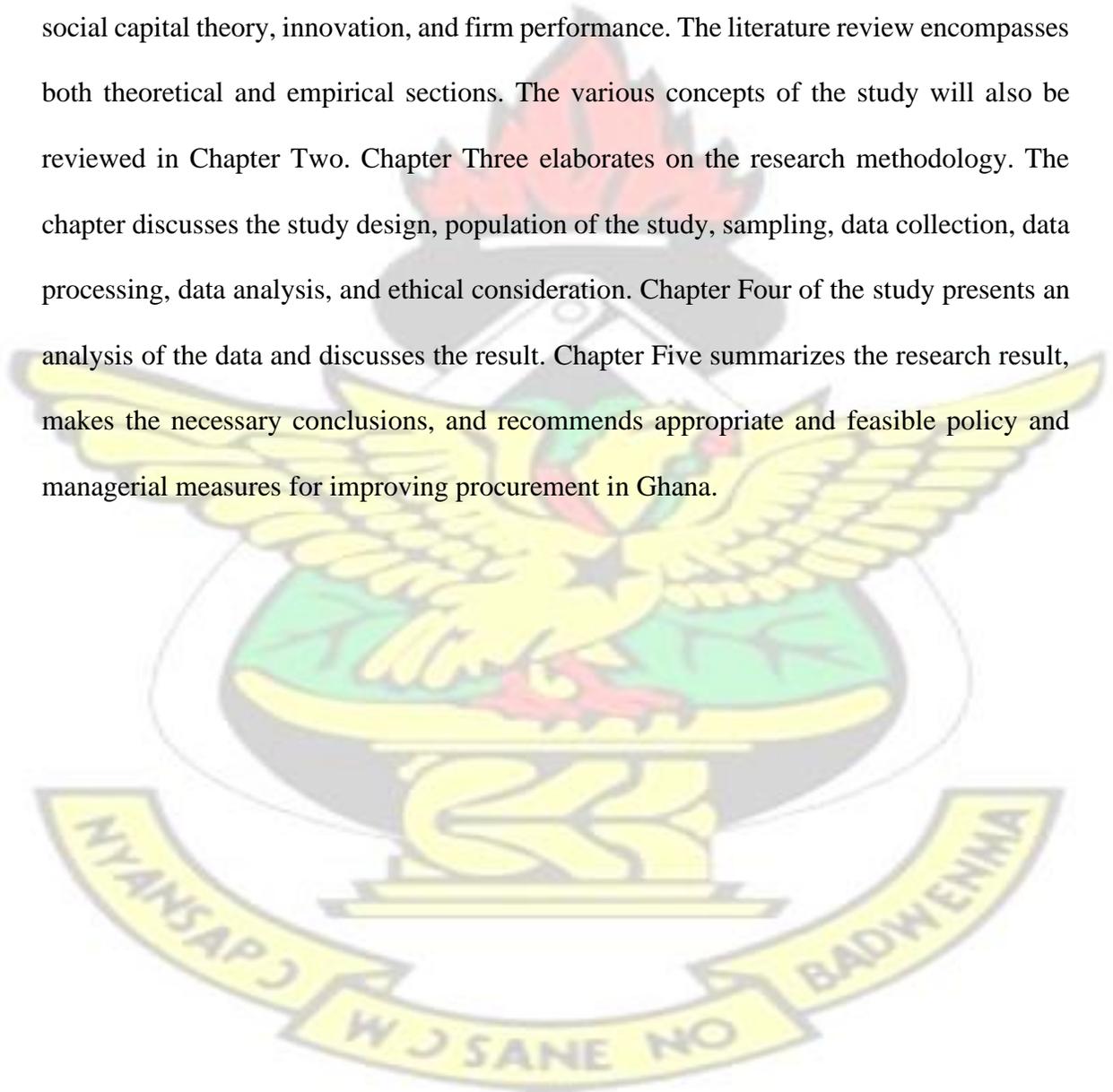
The scope sets the context and boundaries of the research. Contextually the study focused on procurement units of public sector organizations across the country. Though procurement performance is affected by several factors, this study focuses on the effect of the supplier-buyer relationship on public procurement performance, and the mediating role of supplier development with evidence from the Ghanaian Public Sector.

1.8 Limitations of the Study

The study has some limitations. Though prior studies recommend the use of a single respondent in a study of this nature, however, in practice no single person controls or manages the entire SC, this study, therefore, is limited by using a single respondent. Additionally, including a mediator in the relationship would be more robust and valid in contexts specific to service delivery or the public sector. It would have been useful to employ a longitudinal research design in understanding the relationship. Though the study had no issues of common method bias despite using a single respondent, future studies must consider multiple respondents from each firm. Again, future researchers can also investigate the conceptual model using other sectors of the economy of Ghana such as the service sector and nonprofit organizations.

1.9 Organization of the Study

The study is structured into five chapters. Chapter One introduces the background of the study, the research problem, research objectives, research questions, justification or significance of the study, the scope of the study, limitations of the research, and an overview of the research methodology. Chapter Two reviews relevant literature related to social capital theory, innovation, and firm performance. The literature review encompasses both theoretical and empirical sections. The various concepts of the study will also be reviewed in Chapter Two. Chapter Three elaborates on the research methodology. The chapter discusses the study design, population of the study, sampling, data collection, data processing, data analysis, and ethical consideration. Chapter Four of the study presents an analysis of the data and discusses the result. Chapter Five summarizes the research result, makes the necessary conclusions, and recommends appropriate and feasible policy and managerial measures for improving procurement in Ghana.



CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

Chapter two (2) of this study is divided into four (4) main sections. The chapter provides information organized under conceptual review, theoretical review, empirical review, and the research framework.

2.2 Conceptual Review

This section provides definitions of variables and how they have been used in the study. The research work consists of three (3) variables (Supplier Selection, Procurement performance, and Stakeholder orientation). However, these variables have been operationalized in the subsequent sections below.

2.2.1 Supplier Selection

The supply chain (management of networks, decision-making, scheduling, etc.) is an area that has developed since the 80s of the last century (Bocewicz et al., 2021, Banaeian, et al. 2015). As the structure of a supply chain becomes more complicated, extended, and globalized, firms in the supply chain become increasingly dependent on their suppliers. Supplier selection has a great impact on the integration of the supply chain relationship. An effective and accurate supplier selection decision is a criterion for production and logistics management in many firms to enhance their organizational performance and also plays a role in creating a competitive edge for the firms. According to El Mokadem, M. (2017) supplier selection refers to the actions taken by a manufacturer to select suppliers based on their ability to fulfill an organization's requirements. Zimmer et al. (2016),

defines supplier selection as a process for companies to identify and evaluate appropriate suppliers and their upstream supply chains to select those options, which perform the best along the upstream supply chain with regard to the three dimensions of sustainability. Supplier selection according to (Van der Westhuizen and Ntshingila, L. (2020) is identifying and distinguishing suppliers that are in the position to work whilst displaying the best potential for continuously meeting a company's needs. In this study, supplier selection is defined as a tool that provides useful information for potential efficiency gains and enhanced competitiveness, at existing levels of resources and technology (Krop and Iravo, 2016).

The supplier selection process consists of several tasks (Zimmer et al. 2016). Selection of the right suppliers not only reduces procurement costs (Mohammaditabar, D., and Ghodsypour, S. H. 2016) but also contributes to product innovation and helps achieve effective production processes (Yoon et al., 2018).

The process of selecting a supplier forms a set of qualifying strategic and operational standards that buyers use to align external resources with internal stakeholder goals (Nair et al, 2015). Clear and aligned supplier selection criteria help ensure distinct supplier roles and predictability in outcomes and responses. A lot of studies have reported on the criteria for supplier selection however this study focuses on strategic supplier selection and operational selection which would be discussed in the subsequent sections.

2.2.1.1 Strategic and Operational Supplier Selection

Organizations from time to time are under pressure to find ways to cut material and production costs by engaging in strategic and Operational supplier selection processes (Kariuki, J. G., Makokha, E. N., and Namusonge, G. S. (2018) hence supplier selection has

become more complex when following the trends of integrating research and development aspects and the firm's corporate strategy into the supplier selection process (Hosseini and Khaled, 2019; Ristono, et al., 2018, Wetzstein et al., 2016) According to (Cardoso and Biazzin., 2020) strategic Supplier Selection (SSS) is defined as activities that contribute to developing organizational plans and market position strategies whereas, operational Supplier Selection (OSS) is defined as the procedures or processes that facilitate achieving efficient execution of a task.

A strategic supplier selection (SSS) is adopted by an organization to evaluate and select the supplier who fulfills the requirements of the manufacturer. To develop a more effective relationship with suppliers, organizations are using specific criteria to strengthen the selection process. These criteria change in the wake of new challenges faced in selecting suppliers who can add long-term value to the manufacturer (Yoon, J., Talluri, S., Yildiz, H., and Ho, W. (2018). Most studies have argued that a buyer's operational and strategic performance can be improved by teamwork with its suppliers in terms of cost, quality, processes, new product development, and entrance into new markets (Hussain, and Nawaz.,(2018). Also, strategic supplier selection (SSS) plays a vital role in an organization /business to guarantee a reliable and cost-efficient supply of required materials and services for the production process (Klunder, et al. 2019; Zunk et al., 2020). Primarily, strategic suppliers affect the core competencies of a company, the long-term sales, and the operations planning strategy, where the supplier is part of a long-time collaboration with the customer company (Zunk et al., 2020). Strategic supplier selection(SSS) has a direct influence on the profit of a company and, is considered one of the main sources to gain a competitive advantage. Traditionally, SSS is focused on cost, quality, and time-orientated

targets. However, due to the globalization of firms, there have been a few additional ones, like social, economic, environmental, and a reduction in a single source of supply. Strategic suppliers deliver crucial products or services that cannot be imitated by other suppliers and will be, a part of core-competence-based cooperation. In addition, in SSS usually, a single decision-making process takes place, meaning that one single person/entity is responsible for the selection process (Woschank, et al., 2022). Doshi, J. A. (2019). identified quality, cost and delivery performance history, and technical capabilities as important criteria in supplier selection. Also Jain and Singh. (2020) reviewed articles discussing supplier selection criteria, and found that quality was perceived to be the most important, followed by delivery performance and cost. The selection of suppliers is critical for several reasons, the trend toward "just-in-time" manufacturing practices has resulted in a supply base reduction (Sultan et al. 2018). Moreso due to resource scarcity, there is a need for greater interaction between the buyer and the supplier. Finally, firms involve their suppliers early in the planning process so that they are able to deliver value to their customers (Noshad, K., and Awasthi, A. (2018). Finally, supplier selection strategy in terms of technology, quality, cost, and delivery performance are important strategies in reducing "upstream" uncertainties, such as supplier defaults on delivery and performance, and quality rejects; as well as "downstream" uncertainties due to demand volatility and changes in product mix, price, and competitors' action. Thus, the impact of each of these strategies on procurement performance varies in diverse ways

2.2.2 Procurement Performance

Procurement is an activity within organizations, and severe financial and operational consequences can result from failure to optimize the procurement function. High procurement costs make manufacturing firms select their suppliers carefully (Jia, et al., 2021), particularly because firms tend to have fewer suppliers with whom they have long-term relationships (Obaid et al., 2022).

According to (Kariuki et al., 2018) procurement includes all activities required in order to get the product from the supplier to its final destination.

Procurement is the process of acquiring goods or services and ensuring the efficient running of an organization (Osei-Tutu et al. 2019). Performance is the effective achievement of a set organization's goals and targets. This can be acquired by minimum operation cost while maintaining efficiency (Mutuku et al. 2021). Thus, procurement performance is simply an effective and efficient process of acquiring goods and services. Procurement performance is considered to be the result of two main components that are purchasing efficiency while maintaining optimum effectiveness (Mugenyi et al., 2020). This ensures that operation is conducted to meet the set standards in transactions (Mojaki and Chukwuere. (2021). The performance of procurement may be assessed in several ways such as the cost of procurement, procurement time, and procurement accuracy. It can be used by the management in determining the various shortcomings in t procurements and how they can be countered. Also, it is a component of seven main factors which include proper procurement strategy, well-coordinated management information, and focused procurement efforts (Smith and Conway, 1993). As such, supply chain procurement practices aim to enhance the flow of goods from the suppliers to the buyers. This helps to

better understand the systems and coordination of operations which goes a long way in achieving operational performance (Abbas, et al., 2021). Abioro, T. A. (2021) associated procurement performance with effective and efficient procurement operations. Osuga et al. (2015) pointed out that procurement operational performance is associated with reduced procurement costs and improved achievement of procurement organizational goals respectively. Rotich et al. (2021) argued that procurement performance is concerned with effectiveness and efficiency in procurement operations. They came up with eight indicators for the measurement of procurement on operational performance. Procurement performance is associated with cost reduction, enhanced profitability, assured supplies, quality improvements, and competitive advantage (Bartai and Kimutai, (2018). Therefore from the above definitions, an organization can achieve its goals to satisfy its customer based on two fundamental dimensions of performance that is efficiency and effectiveness.

2.2.3 Stakeholder orientation.

An organization's success is dependent on how well it manages its relationships with key groups like customers, employees, suppliers, communities, financiers, and others that affect the realization of its goals. Stakeholder orientation is defined as the extent to which a firm's management focuses attention on also merge the interests of multiple stakeholders in its decision-making (Bettinazzi, E. L., and Feldman, E. R. (2021). However, a firm's decisions and performance are influenced by the engagement of stakeholders (Lasytè, G., 2019). Hence, a firm's successful long-term survival depends on the effective management of stakeholder relationships. To execute this, the firms' managers are held responsible to look after the stakeholders' demands and the shareholders' welfare (Kannan, D. (2018). To

achieve a strategic competitive advantage, organizations must select their suppliers by evaluating their performance under three dimensions: economic, environmental, and social) known as "triple bottom line". (Jain., and Singh., 2020). In the triple bottom line (TBL) approach, the needs of stakeholders and investors are emphasized simultaneously which tends to help the organization attain long-term corporate success (Lechler et al. (2020). Other studies have confirmed the effective management of stakeholder relationships is a key indicator in selecting suppliers. (Kannan, D., 2018). Organizations can easily attain good value for their stakeholders who will then help the organization achieve a successful SCM. Thus ineffective management of stakeholder relationships leads to serious negative impacts on the bottom line which, in turn, causes reputational damage to an organization (Epstein, et al., (2018)

2.3 Theoretical Review

In this section, the research work discusses the theory that forms the basis to investigate the “effects of supplier selection on procurement performance, moderating role of stakeholder orientation”. A theoretical framework explains the context and the connections between the various factors and dimensions. In this study, all research concepts are related or expressed based on the Stakeholder theory.

2.3.1 Stakeholder theory

The Stakeholder theory focuses on relationships between stakeholders, such as customers, employees, and communities affecting company performance. Previous studies have shown that the stakeholder theory is a strategy mostly used by top executives in organizations. According to Freeman (1984), a stakeholder is “any group or individual who

affects or is affected by the achievement of an organization's objectives" (Sarkis et al., 2011). "An organization's success is dependent on how well it manages the relationships with key groups like customers, employees, suppliers, communities, shareholders, and others that affect the realization of its set goals" (Freeman and Philips, 2002; Ditlev-Simonsen and Wenstop, 2013). This theory, however, means a firm's decisions and performance depend on collaborative efforts with its stakeholders. (Matos and Silvestre, 2013). Diverse stakeholders bring about innovation in an organization's decisions. Thus, the growth of an organization depends on the effective management of stakeholder relationships (Clarkson, 1995; Post et al., 2002; Alvarez-Gil et al., 2007). Therefore, we would conclude by saying managers and the top-executive in organizations are held responsible for stakeholders' demands and the shareholders' welfare (Hill and Jones, 1992; Alvarez-Gil et al., 2007). Alvarez-Gil et al. (2007) used the stakeholder theory, organizational slack, and manager's strategic stance concept, to propose a model for reverse logistics implementation.

Reuter et al. (2012) studied the impact of stakeholder influence on sustainability and cost prevalence while making supplier selection decisions. Park et al. (2014) examined the impact of specific stakeholder group influence on Corporate Social Responsibility (CSR) practices. Results gathered demonstrate that the primary (consumers, internal managers, employees, and business collaborators) and secondary (governments, media, local community, and NGOs) stakeholders have a direct influence on firms' supplier selection which enhances performance. This study concludes by arguing that with stakeholders in mind, firms can position themselves strategically to select their suppliers based on some

key criteria that fall within a firm's set goals and targets and the results guarantee market value and firm performance.

2.4 Conceptual Framework

Figure 2.1 is the conceptual framework adopted for the study. It proposes a direct relationship between supplier selection and procurement performance. It also proposes that this relationship is moderated by stakeholder orientation.

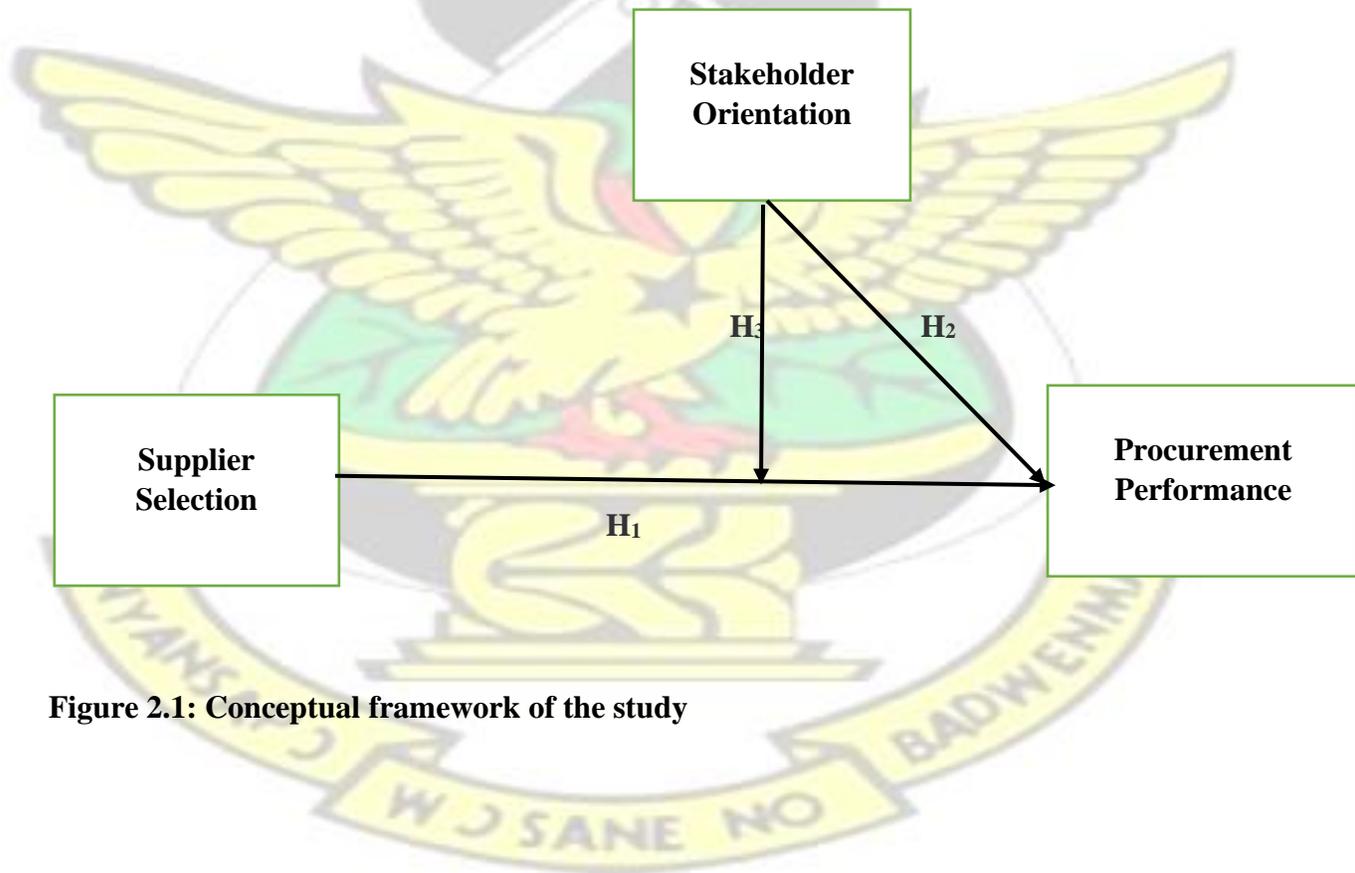


Figure 2.1: Conceptual framework of the study

2.5 Empirical Review

This section assessed the research on prior studies that addressed the study's objective.

2.5.1 Effects of Supplier Selection On Procurement performance

Sabri et al. (2022) investigate the effects of supplier selection criteria on performance. The study collected data from both primary and secondary sources using a sample size of 20 suppliers. Data were analyzed using classification analysis and thematic analysis. Findings from the study demonstrate that supplier selection criteria should include financial and non-financial performance indicators. Further studies should focus on trade-offs between supplier capabilities and supply chain configuration.

Sharma and Joshi. (2020) examines the role and impacts of digital supplier selection on organizational performance. Data were collected using questionnaires, a sample size of 25 experts from the manufacturing industry. The study employed the Stepwise Weight Assessment Ratio Analysis (SWARA) and Weighted Aggregated Sum Product Assessment (WASPA) to test the data collected. The result indicates that supplier core competency has a positive effect on performance. The research recommends future work to replicate the study in other countries to acquire a generalization of the findings.

Alikhani et al. (2019) examine the role and core competencies of supplier selection on performance. The study employed qualitative research using interviews to gather data. The study used data envelopment analysis and sensitivity analysis to test the data. Findings reveal risk factors in supplier selection improve performance. Further studies may examine supplier development programs and their effects on the selection process

Suraraksa and Shin (2019) conduct a study to analyze the criteria for supplier selection and monitoring. The study used questionnaires to gather data using a sample size of 14 experts from the automobile industry. Also, the research employed Pareto analysis and

comparative analysis as research techniques to analyze data. Findings show a difference in criteria between supplier selection and monitoring. The study advises managers to understand and recognize the difference in criteria when selecting and monitoring suppliers for their organization.

Kellner et al. (2019) conduct a study on multi-criteria supplier selection problems. The study used quantitative research to gather data. Data was tested based on a mathematical optimization model. This research combines the Markowitz portfolio theory, and analytic network process (ANP), Findings demonstrate “risk” which is a criterion in supplier selection that has an impact on performance

Famiyeh and Kwarteng (2018) investigate the components of Supplier selections and their effects on performance. The study used survey and questionnaires to gather data with a total sample size of 510 from the service and manufacturing sectors, but only 358 of the responses was used. Structural equation modeling (SEM) was used to test the data collected. The findings show a direct positive effect of strategic supplier selection on performance.

Further studies may investigate the relationships between other supplier selection criteria and their impact on performance.

Hussain and Al-Aomar. (2018) conducts a study on the effect of selected supplier criteria on firm performance. The study employed purposive sampling in collecting data from primary and secondary sources. A sample size of 255 respondents was used. Data was tested using Structural Equation Modelling (SEM).

Findings show that suppliers' environmental Management and technology Standards have a direct effect on performance. Further research work may investigate the social and environmental components to measure performance.

Kumar et al. (2018) conduct a study on supplier selection for capital procurement decisions. The study employed quantitative research and convenience sampling to gather data using questionnaires. A sample size of fifteen (15) experts in the automobile industry were considered in the study. Also for data analysis purposes, data were tested using fuzzy theory and the AHP-DEMATEL method. Findings show that the total cost of ownership, service support and conformity with requirements are the factors to consider in selecting a supplier.

Borges de Araújo et al. (2015) investigates the factors to consider in selecting a supplier. The study gathered data through questionnaires using a sample size of 72 companies in the food industry. Findings from the study reveal that a good buyer-supplier relationship influences performance. The research recommends further studies in other sectors.

2.5.2 Effects of Stakeholder orientation on procurement performance

Thanh et al. (2021) examine the influence of Corporate Social Responsibility(CSR) on procurement performance. The study through a random sampling method collected data using a questionnaire and a sample size of 360 SMEs. Data was tested based on the Partial Least Squares Structural Equation Modeling (PLS-SEM) technique. Results from the study demonstrate that CSR has a direct influence on performance. The researchers suggest further studies may replicate the same studies in other countries and also widen the sample size.

Kannan, D. (2018) investigates stakeholder orientation on performance. Data were collected from primary and secondary sources. Data was tested using sensitivity analysis and some of the techniques employed in the study include Fuzzy Delphi, Interpretive Structural Modelling (ISM), Analytic Network Process (ANP), and Complex Proportional Assessment (COPRAS-G). Findings show that stakeholder orientation has a direct effect on performance. Further studies should extend this research to other industries

Croom et al. (2018) examine the effects of social sustainability orientations on operational performance. Data were collected using a survey. The total sample size was 229 firms but the valid responses gathered were 175. Also, data were analyzed using Confirmatory factor analysis and multiple regression techniques. According to the study, results show that social sustainability orientation has a direct influence on performance. Further studies may examine the relationships between social sustainability orientation and long-term orientations on operational performance.

2.5.3 Moderating Role of Stakeholder orientation.

Jafari et al. (2022) investigate the link between Supply Chain flexibility (SCF) and Customer responsiveness (CR), the moderating role of innovation orientation (IO). Data was collected using surveys and a sample size of 225 Swedish manufacturers. Data was tested and validated using confirmatory factor analyses and exploratory factor analyses. Results gathered from the study reveal that innovation orientation has a significantly positive impact on supply chain flexibility and customer responsiveness. Future studies may consider a collective organizational orientation and its effects on performance. Future studies could examine whether the findings hold in other contexts.

Hoang and Bui Thanh. (2021) conducts a study on the link between Corporate Social responsibility (CSR) and performance in the role of relationship market orientation. The study gathered data using questionnaires and surveys, and a sample size of 242 respondents. Data was tested using Structural equation modeling. Also, the study focused on the Stakeholder theory to identify the relationships among the variables. Findings from the study demonstrate the linear relationship between market orientation on CSR and business performance. The research recommends further studies replicate the research model in other countries and other industries to get a general overview of its findings.

Galeazzo et al. (2021) conduct a study on the effects of green procurement on performance, and the moderating role of green purchasing behavior. Data was gathered using surveys, a sample size of 122 firms in the hospitality industry. The study employed the random-effects generalized least squares regressions to validate and analyze the data. Results gathered from the study demonstrate a direct impact of the role of green purchasing behavior over green procurement and performance.

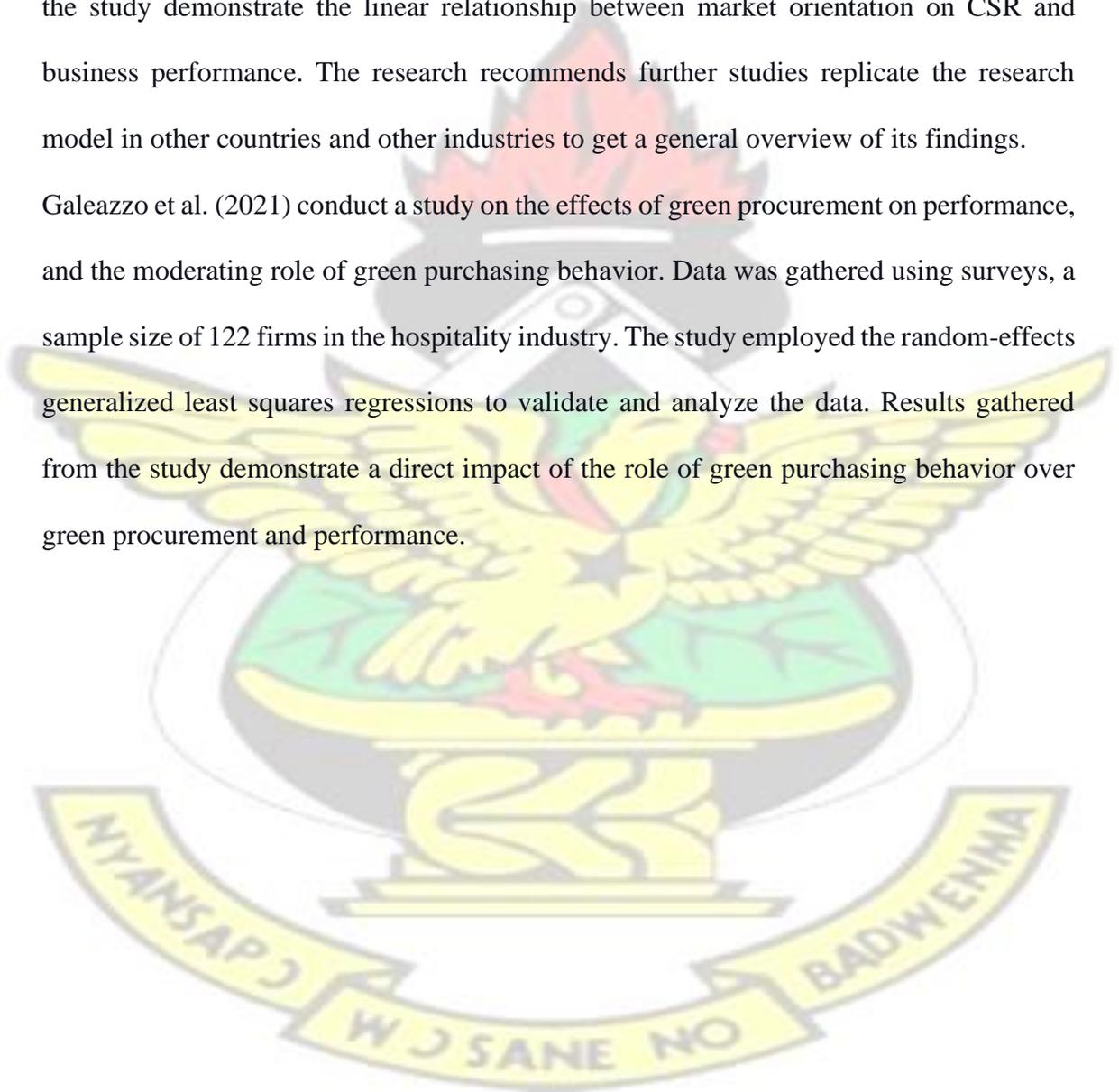


Table 2.1: Summary of Literature Review

| Author/Year | Country | Purpose | Theory | Method | Findings | Future studies |
|------------------------|---------|---|---|--------------|--|---|
| Alikhani et al. (2019) | Iran | To examine the role and core competencies of supplier selection on performance. | fuzzy sets theory and grey theory | qualitative | Findings reveal that a focus on criteria or risk factors in supplier selection improves performance. | Further studies may examine supplier development programs and its effects on the selection process. |
| Kumar et al. (2018) | Indian | To conduct a study on supplier selection on procurement decisions | fuzzy theory and Analytical Hierarchy process | quantitative | Findings show that total cost of ownership, service support and | |

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| | | | | | conformity with requirement are the factors to consider in selecting a supplier. | |
| Kellner et al. (2019) | Germany | To conduct a study on multi-criteria Supplier selection problems. | Markowitz portfolio theory, and the analytic network process (ANP). | quantitative. | Findings demonstrate “risk” which is a criteria in supplier selection has an impact on performance. | |

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| Sabri et al. (2022) | Italy | To investigate the effects of supplier selection criteria on performance | social exchange theory | qualitative | Findings from the study demonstrate that supplier selection criteria should include financial and non-financial performance indicators. | |
| Suraraksa and Shin (2019) | Thailand | To conducts a study to analyze the criteria for | analytic hierarchy process (AHP) | quantitative and qualitative | | |

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| | | supplier selection and monitoring | | | | |
| Borges de Araújo et al. (2015) | Brazil | To investigate the factors to consider in selecting a supplier. | PROMETHEE – GDSS | quantitative and qualitative | Findings from the study reveal that a good supplier-buyer relationship influences performance. | The research recommends further studies in other sectors. |
| Kannan, D. (2018) | Indian | To examine the influence of stakeholder orientation on | Stakeholder theory, Critical Success Factor (CSF) | quantitative. | Not stated. | |

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| | | procurement performance. | theory and triple bottom line | | | |
| Thanh et al. (2021) | Vietnam | To examine the influence of Corporate Social Responsibility on procurement performance. | | quantitative | Results from the study demonstrate that CSR has direct influence on performance | further studies may replicate the same studies in other countries and also widen the sample size. |
| Croom et al. (2018) | U.S | To examine the effects of social sustainability orientations on | | quantitative | results show that social sustainability orientation has a direct | Further studies may examine the link between social sustainability |

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| | | operational performance | | | influence on performance | orientation and long-term orientations on operational performance |
| Hoang and Bui Thanh. (2021) | Vietnam | To conducts a study on the link between Corporate Social responsibility (CSR)and performance the role of relationship market orientation | Stakeholder theory | quantitative and qualitative | Findings show a t linear relationship of market orientation on CSR and business performance. | further studies replicate the research model in other countries and other industries to get a general overview of its findings. |

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|------------------------|---------------------------------|---|--|------------------------------|--|---|
| Galeazzo et al. (2021) | Europe, Asia, and North America | To conduct a study on the effects of procurement on performance, the moderating role of green purchasing behavior | consumer inference theory and Stakeholder theory | qualitative and quantitative | | |
| Jafari et al. (2022) | Sweden | To investigate the link between Supply Chain flexibility (SCF) and Customer responsiveness (CR), the | | | innovation orientation has significantly positive impact on supply chain flexibility and | Future studies may consider a collective organizational orientation and its effects on supply chain |

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|-----------------------------|-------|--|-----------------------------------|---------------|--|--|
| | | moderating role of innovation orientation (IO). | | | customer responsiveness. | flexibility and performance |
| Famiyeh and Kwarteng (2018) | Ghana | To investigate the components of Supplier selections and their effects on performance. | Transaction Cost Economics theory | quantitative. | Findings show a direct positive effect of strategic supplier selection on performance. | Further studies may investigate the relationships between other supplier selection criteria and its impact on performance. |
| Sharma and Joshi (2020) | india | To examines the role and impacts | | Quantitative | Result indicates that | The research recommends |

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| | | of digital supplier selection on organizational performance. | | | supplier core competency has a positive effect on performance | future work to replicate the study in other countries to acquire a generalization of the findings |
| Hussain and Al-Aomar (2018) | United Arab Emirates | To conduct a study on Supplier Selection and its effects on firm performance | Tripple Bottom line Theory. | Quantitative. | Findings show that supplier s environmental Management and technology standards has a direct effect | Further research work may investigate the social and environmental components to |

| Author/Year | Country | Purpose | Theory | Method | Findings | Future studies |
|-----------------------|----------|---|-------------------------|--------------|--|---|
| Aljumah et al. (2021) | Malaysia | The study's goal is to investigate how big data analytics capabilities (BDAC) affect organizational effectiveness. The study also looks at the moderating effects of the business value of big data (BVBD) analytics and the mediating effects of dynamic capabilities in the link with big data analytics skills and organizational effectiveness. | Dynamic capability view | Quantitative | The findings on the performance of the firm and its drivers, such as the system, value of the organization, and quality of information, support the big data analysis's (BDA) scalability. It is determined that the mediator functions of dynamic | measure performance. The author proposed that future research may employ additional mediators such as big data value generation, and big data management competence, including big data investment based on the constraints of the study. As a result, the relationship between big |

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| | | | | | capabilities and commercial value are considerable. The findings show that in order to attain high productivity for the company, managers must take into account the characteristics of business value and quality. | data analytics and the performance of industrial companies in the UAE is moderated by the commercial value of big data. |
| Alkhatib and Valeri (2022) | Jordan | The study investigates the relationship among elements of productive capacity (IC) and the competitive | Resource-based view (RBV) theory | Quantitative | The findings demonstrated that the suggested moderate positive model was adopted | Future studies should be conducted which take into consideration the other components of |

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| | | <p>advantage (CA) of the hotel industry in Jordan by mediating the impact of service development and moderating the impact of big data analytics capabilities.</p> | | <p>since there was statistically significant correlation between the components. The examination of the data revealed a strong correlation among organizational, structural, and human capital, as well as a mediating role for service innovation. The results demonstrated that service innovation and CA have a</p> | <p>IC, the researcher said, depending on the limitations and results of the study. Second, we conducted the research and data collection using cross-sectional methods.</p> |
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| | | | | | <p>moderating connection for big data analytics capability. In light of the big data analytics capabilities, the results highlight the significance of IC and service innovation in boosting CA in the Jordanian hotel sector.</p> | |
| Capurro et al. (2021) | UK | <p>The goal of this study is to examine, from the viewpoint of dynamic capacities, the function of big data analytics in</p> | <p>Dynamic capability view</p> | <p>Qualitative</p> | <p>This research demonstrates how businesses use big data to get "richer" and "deeper" information at the nexus of</p> | <p>The author hypothesized that the findings may serve as a springboard for future research on the connections</p> |

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| | | <p>aiding business change initiatives.</p> | | | <p>the digital and physical worlds. In order to create novel goods, services, or remedies with qualities that may first differ, perhaps dramatically, from known customer/user demands, the authors show proof for the significance of paradoxical techniques.</p> | <p>amongst big data, business strategy, and organizational innovation based on the study's findings and limitations. In order to advance extended frameworks that can integrate big data analytics, innovation points of view, and techniques for the physical and, perhaps better, the "real-traditional," world, it will be crucial to analyze case</p> |
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| | | | | | | studies based on both successful and unsuccessful life experience with the deployment of new technologies and tools. |
| Qaffas et al. (2022) | Saudi Arabia | Businesses have improved big data analytics talent capabilities to enhance company performance as a result of the growing interest in big data. Some businesses benefit from big data capacity, but not all do, and it seems like very few have used big data to make a | Complexity theory and Institutional theory | Quantitative | The research demonstrates that business intelligence system is significantly impacted by big data analytics talent capacity, which in turn influences company financial and | Based on the study's limitations, the author hypothesized that it would be more beneficial to incorporate additional variables, such as a data-driven culture, business analytics capability, |

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| | | <p>significant effect. This study intends to investigate how big data talent capacity impacts business analytics foundation to accomplish firm performance. It is grounded in the most recent literature on the knowledge-based view, IT capability, big data talent capacity, and actionable insights.</p> | | | commercial success. | digital platform capability, customer analytics, and sales forecasting, into this literature review in order to gain more additional insight. |
| Kibe et al. (2020) | Kenya | This study attempts to ascertain the impact of big data analytics on Technical University of | Resource-based view (RBV) theory | Mixed-method | The results showed that using big data analytics at both organizations had a | The author recommended that both TUK and SU should have a clearly defined strategy on the |

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| | | <p>Kenya's (TUK) and Strathmore University's organizational performance (SU). Big data analytics is a set of techniques and tools that uses novel integrative techniques to extract huge missing parameters from massive, complicated, and varied data sets. Big data analytics are typically thought to enhance organisation effectiveness. The ability of various organizations to supply the resources needed</p> | | | <p>favorable impact on most organizational performance metrics, including inventiveness, creativity, effectiveness, productivity, and reliability. The findings suggest that although SU demonstrated a positive link between the two variables, TUK exhibited a negative relationship between big data analytics and competitiveness</p> | <p>use of big data analytics based on the constraints of the study. The plan will serve as a roadmap for what should be done when and what the deliverable should be.</p> |
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| | | for big data analytics will, however, determine how this plays out. | | | ss and profitability. According to the results of the regression analysis, the both independent and dependent variables for SU had a good association, whereas the TUK had a limited impact. | |
| Lai et al. (2018) | China | The goal of this study is to explore the variables affecting organization's desire to incorporate big data analytics (BDA) in their everyday operations based | Diffusion theory | Quantitative | The empirical findings showed that top-level support and perception might have a big impact on adoption intention. | Based on the study's limitations and results, the author suggested that future studies avoid this by planning a longitudinal |

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| | | <p>on prior work on BDA and management of supply chains (SC). This study actually divides possible components into the following four groups: technology, organizational, ecological, and SC attributes.</p> | | | <p>Additionally, the direct linkages between the driving motivations and the desire to adopt can be greatly moderated by environmental variables like the adoption of rivals, governmental regulations, and SC availability.</p> | <p>study that would allow us to track changes in attitudes or adoption of BDA over time. The issue of data security is one that the BD era raises serious concern. There is a chance that information about the company itself might leak when businesses harvest or access the data of others. Future study may find it useful to focus on how to</p> |
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| | | | | | | <p>solve information privacy and develop industry standards.</p> |
| Dennehy et al. (2021) | UK | <p>This study aims to comprehend the conceptual model of linkages connecting collective awareness and big data analytics in creating robust supply networks for humanitarian aid.</p> | <p>Exploratory theory</p> | <p>Qualitative</p> | <p>The results demonstrate that company awareness, rather than merely big data analytics, is essential to allowing robust humanitarian aid supply networks.</p> | <p>Based on the results and the study's limitations, the author recommended that future research collaborations with a particular aid agency and seek assistance from the entire company to make sure that staff members involved in disaster response</p> |

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| | | | | | | <p>initiatives complete the questionnaire. This would enhance internal consistency and offer insights specific to the organization in terms of its state of mindfulness toward big data analytics.</p> |
| Mangla et al. (2020) | India | <p>The goal of this study is to determine how "Big Data Analytics" mediates the relationship between "Team Effectiveness" and nine different</p> | <p>Marketing and BDA theory</p> | <p>Quantitative</p> | <p>The outcome demonstrates that big data analytics is necessary to mediate between project knowledge management,</p> | <p>The following are plans for this study's future work: (1) The size of the test dataset can be enhanced to improve the precision of</p> |

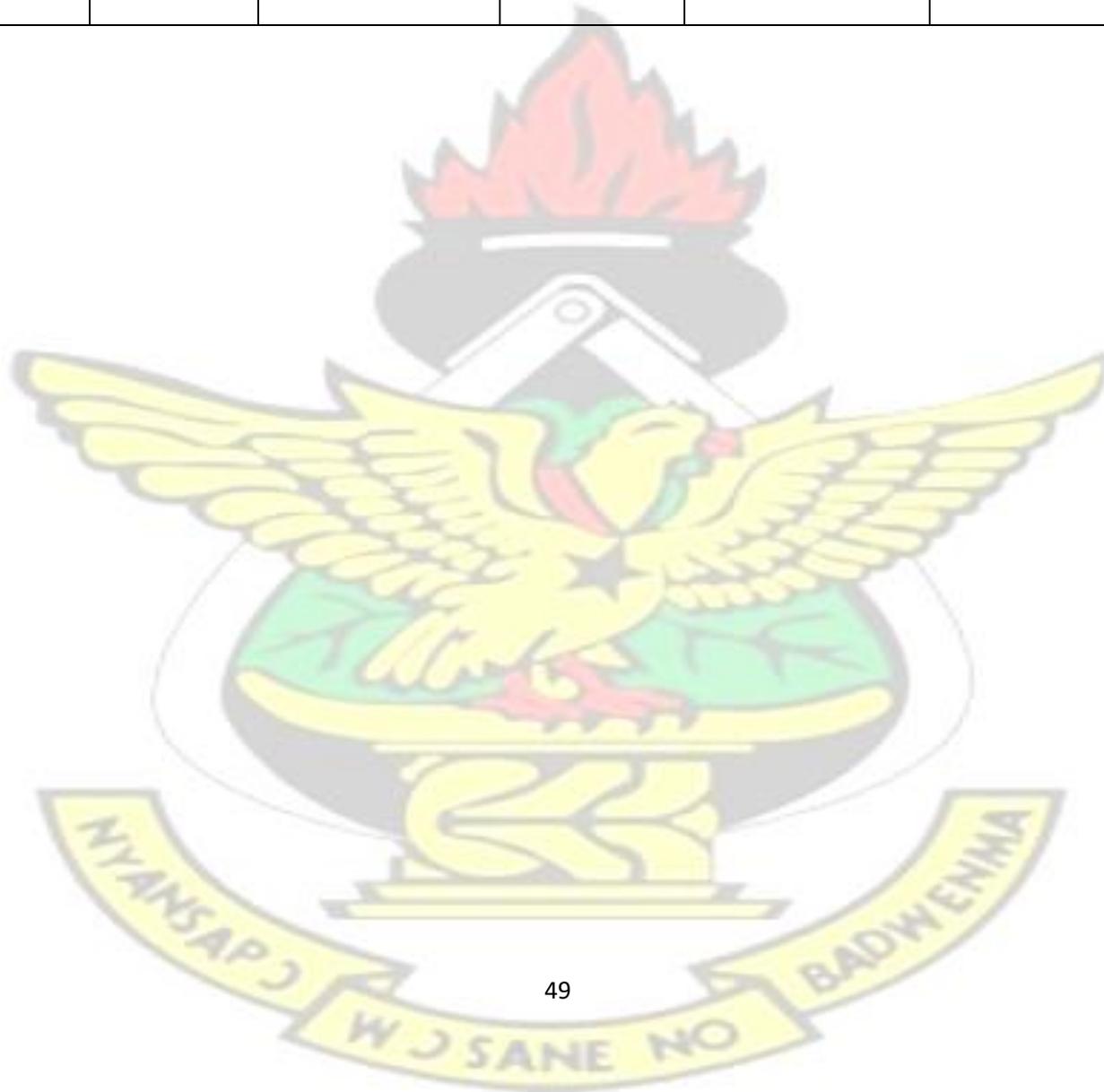
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| | | <p>factors, which include upper executives, a sustainability-focused project knowledge management approach, green purchasing, environmental technologies, social responsibility, project ability to execute, project requirements, collaborative effort and exploratory learning, and project success.</p> | | | <p>green buying, and program technical expertise. Big data analytics adoption has a positive impact on project performance in the manufacturing industry.</p> | <p>the results; (2) Data can be collected through a structured questionnaire, which may lead to heterogeneity; (3) The role of procurement performance in BDA can be explored; (4) BDA for supply chain risk can be investigated; and (5) A hybrid model of SEM with neural network can improve forecasting ability and</p> |
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| | | | | | | handle nonlinearities. |
| Majhi at al. (2021) | India | This paper's goal is to theorize how cognitive analytics technology might support a company's continuous sensing, seizing, and reconfiguration characteristics. | Dynamic capability view | Quantitative | This study proposes theories and a conceptual foundation connecting cognitive advanced analytics with companies' dynamic capacities using assumptions based on pre-existing conceptual and empirical academic literature (sensing, seizing, and | Potential researchers can improve on the work described in this publication by focusing on at least two interesting areas. First, a measurement scale that is both quantitative measurements and statistically valid may be created to assess a company's capacity for |

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| | | | | | reconfiguring) . | cognitive analytics. |
| Mikalef et al. (2019) | USA | This study investigates the inverse relation among big data analytics capacity (BDAC) with two types of innovation capabilities: incremental and radical, relying on the resource-based approach, the innovation diffusion view, and contemporary big data analytics literature. | Resource-based theory | Quantitative | The findings supported the authors' hypotheses on the adverse influence that BDACs have on innovative skills using partial least squares structural equation modeling. They specifically discover that both incremental and radical innovation skills are entirely mediated by | The author made the recommendation that future studies should aim to solve, and it is of greater practical relevance, especially taking into account the costs of adopting big data projects, depending on the study's results and constraints. |

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| | | | | | strategic flexibility. | |
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CHAPTER THREE

RESEARCH METHODOLOGY AND ORGANIZATIONAL PROFILE

3.1 Introduction

This chapter presents an outline of the various methods and strategies employed by the researcher to collect data, clean the data and analyze the data using the appropriate analytical tools. It looks at the research design, the population of the study, sampling technique and sampling size, data collection, data analysis, validity and reliability, ethical consideration and profile of the public sector procurement in Ghana.

3.2 Research Design

In terms of data collection, measurement, and analysis, the research design refers to how a study will be carried out. It establishes the conditions for data collection and analysis in such a way as to strike a balance between relevance to the study purpose and organizational efficiency (Larbi and Gyedu, 2021). The creation of that kind of planning and evaluation is for the most efficient research possible, resulting in the greatest amount of information. The goal of research design, to put it differently, is to collect as many available facts as feasible with minimum effort, time, and money (Liyanage, Kumara, and Withanawasam, 2016).

The study employed the cross-sectional descriptive survey design where deductive reasoning is applied for the quantitative data (Liyanage et al., 2016). Deductive reasoning is used to make logical conclusions after the analysis. The deductive approach is a method where the researcher uses theories as bases to conduct an investigation that would be used to determine the result of a theory (Owusu-Ansah and Poku, 2012). The deductive method is usually made of quantitative techniques. The quantitative technique uses a survey questionnaire where data are normally

collected from respondents Researchers that utilize quantitative approaches collect and analyze numerical data to understand, forecast, and/or control occurrences. It provides an in-depth insight into the specific testable study and focuses on examining the relationship between variables (Quansah, Ankoma-Sey and Asamoah, 2019).

The survey method is employed for the quantitative study because it examines a sample of the population to produce a quantitative or numeric depiction of attitudes, practices, and opinions. Through face-to-face questionnaire administration, primary data was acquired in the quantitative research design. Usage of the survey method was considered to be efficient and economical; it brings many advantages to the researcher; For instance, it is economical compared to interviewing, authorizes secrecy, and could produce additional truthful answers, besides it has the possibility of eliminating prejudice owing to wording questions differently with diverse respondents (Kothari, 2012; Durepos and Wiebe, 2019).

Subsequently, the use of the quantitative technique was employed to help in understanding the underlying reasons of respondents to issues of investigate how supplier selection (strategic and operational supplier selection) influence procurement performance in the Ghanaian Public sector as well as the moderating role of stakeholder orientation.

This study adopted a quantitative method which will guide the sampling techniques, designing of research instruments, and eventually analysis. As defined by Ragab and Arisha (2018), a quantitative study is a research methodology that explains a phenomenon through the collection of numerical data that is then evaluated using statistical methods. When a researcher uses methods of inquiry such as experiments and surveys, the researcher gathers data on predefined instruments that produce statistical data, which is referred to as a quantitative approach (Anderson et al., 2018; Ragab and Arisha, 2018). The quantitative research approach was chosen

on the basis that it produces accurate and measurable data that can be generalized to a broader population (Jayasingha and Suraweera, 2020). Aside from that, it is ideal for evaluating and verifying already known concepts about how and why events occur by testing hypotheses developed before data collection. In general, quantitative research is regarded as a deductive approach to the investigation (Ragab and Arisha, 2018).

The positivism research philosophy which is the underpinning philosophy for quantitative research can be considered to fit well with the objectives of the research study based on the above approaches. Subsequently, the study employed quantitative methods of data collection in a single study according to the nature of the study. This study uses the existing RBV and PAT as underpinning theories in the hypotheses development. Its purpose is to assess theoretically formulated hypotheses regarding the impacts of a collection of study variable constructs, as well as to use reliability and validity to appraise the results and generalize them. Proceeding to this, the investigator will optimize the principles of positivism philosophy from the epistemological standpoint.

The quantitative research approach was chosen on the basis that it produces accurate and measurable data that can be generalized to a broader population (Goertzen, 2017). Aside from that, it is ideal for evaluating and verifying already known concepts about how and why events occur by testing hypotheses developed before data collection. In general, quantitative research is regarded as a deductive approach to the investigation (Ragab and Arisha, 2018). The study will combine both descriptive and explanatory research types. While the descriptive provides a description of creativity, BDAC, and firm adaptive capability among family firms in Ghana. The explanatory research will also aid in examining the mediating role of creativity in the relationship between BDAC and firm adaptive capability among family firms in Ghana. Finally, the study

will employ the cross-sectional survey design where deductive reasoning is applied to the quantitative data (Cohen, Manion, and Morrison, 2017). The survey design allows the collection of data from different units over a specific period. Since the study is conducted over a limited time, the cross-sectional survey is deemed more appropriate to examine the mediating role of creativity in the relationship between BDAC and firm adaptive capability among family firms in Ghana.

3.3 Population of the Study

The population is a wide range of subjects from which a sample should be taken (Quansah et al., 2019). The whole collection of all units of analysis that a researcher wants to assess for a particular study is referred to as the target population (Babbie, 2015). It is essential to determine the study's target population before beginning a research endeavor. The population of the study comprised of senior managers including procurement officers, stores managers, warehouse managers and entity tender committee members.

3.4 Sample Size and Sampling Technique

Berndt (2020) explains that sampling involves selecting parts of a population to make conclusions about the total. This reduces costs and improves accuracy. When it's hard to survey a whole population, sampling is more convenient. The goal of the study, the type of population under investigation, the level of accuracy required, the expected response rate, the number of variables included in the research, the funds available, and whether the research is quantitative or qualitative are all factors in determining appropriate sample size (Taherdoost, 2021). A purposive and convenience sampling approach was used to select senior managers including procurement officers, stores managers, warehouse managers and entity tender committee members in public sector organizations in Ghana. The Unit of analysis was the senior managers

including procurement officers, stores managers, warehouse managers and entity tender committee members who have at least experience with public procurement. The population of senior managers including procurement officers, stores managers, warehouse managers and entity tender committee members in Ghana, specifically in the public sector was unknown. According to (Mascha, and Vetter, 2018) the unknown population is calculated using the Z-score approach. The Z-score approach was used to determine the reliable sample size considering normal derivation set at a 95% confidence level (1.96). The choice or the response (10%=0.10) considering very few customers actually used chatbot as it requires some level of technological knowledge and that it is an emerging development in the sector in Ghana. The confidence interval (0.05=±5) using the below formula

$$n = \frac{Z^2(P)(1 - P)}{C^2}$$

Where Z= the standard normal deviation set at a 95% confidence level

P=percentage picking a choice or response

C=Confidence interval

$$n = \frac{(1.96)^2(0.1)(1 - 0.1)}{0.05^2}$$

$$n = 138.3$$

$$n \sim 138.3$$

Convenience and purposive sampling techniques were used to select respondents for the study.

The sampling technique is an objective and cost-effective technique of gathering information

that involves choosing respondents who are ready and understand the issues under inquiry. The method was used to choose participants for this research. Purposive sampling is the process of selecting participants based on the researcher's judgment of who has the relevant information. This study used the purposive sampling technique to draw managers from public sector organizations in Ghana. The study employed purposive sampling to collect relevant information from employees who are well knowledgeable about the phenomena under inquiry.

3.5 Data Collection

Two main sources of data exist in any research, this includes primary data and secondary data. While primary data refers to first-hand information gathered by the research for the research, secondary data deals with already existing data gathered for a different purpose. The choice of the data source in any research is dependent on the nature of the objective of the study. Considering the nature of this study, primary data is more suitable to be able to test the hypotheses proposed in Chapter two. The choice of primary data is justified by the quest to gather first-hand information on the views of the factors explored in this study. Data used in this study was therefore gathered using a well-structured questionnaire.

The questionnaire was adapted to investigate how supplier selection (strategic and operational supplier selection) influences procurement performance in the Ghanaian Public sector as well as the moderating role of stakeholder orientation. All the items and construct were adapted from the existing literature (see Table 3.1) and were measured using the Likert scale, similarly (Nayak, 2017; Mihaela, 2015). All questions in the instrument were closed-end questions measured on a 5-point Likert scale. Table 3.1 shows the items used in measuring the various constructs.

Table 3.1: Reliability statistics for variables on questionnaire

| Constructs | Number of Items | Sources |
|-------------------------|------------------------|---|
| Supplier Selection | 7 | Woschank et al.,2022; Manyega and Okibo, 2015; Cho et al., 2021; Koufteros et al., 2012 |
| Stakeholder Orientation | 5 | Bettinazzi, E.L. and Zollo, 2017; Vurro et al., 2022; Luk et al., 2005 |
| Procurement Performance | 4 | Odero, J.A. and Ayub, 2017; Coviello et al., 2018 |

| Constructs | Number of Items | Sources |
|-------------------------|------------------------|---|
| Supplier Selection | 7 | Woschank et al.,2022; Manyega and Okibo, 2015; Cho et al., 2021; Koufteros et al., 2012 |
| Stakeholder Orientation | 5 | Bettinazzi, E.L. and Zollo, 2017; Vurro et al., 2022; Luk et al., 2005 |
| Procurement Performance | 4 | Odero, J.A. and Ayub, 2017; Coviello et al., 2018 |

Data collection is the practice of acquiring information to answer the research questions and test formulated hypotheses (Pandey, and Pandey, 2021). Cooper and Schindler (2014) define the data collection technique as the process of getting data to analyze it and draw conclusions. The respondents for this study were customers of star assurance company limited. By obtaining permission from the firms sampled. The questionnaires were administered both online and in person. Data from the sampled population were gathered using a structured questionnaire. Respondents were asked to participate in the study and were informed of its purpose. It was ensured that respondents understood the purpose of the study to improve the reliability of the responses. As a result, all ethical issues were resolved.

3.6 Data Processing and Analysis

The method of data analysis forms an essential component of any research such that the choice of the method of analyzing data plays important role in the quality of findings, conclusions, and

recommendations that are drawn from the data. Being a quantitative study, this study employed multiple quantitative techniques in analyzing the data to fulfill the goal outlined in chapter one. After gathering, all the data was compiled in excel for scrutiny. After the scrutiny, a few questionnaires that were found incomplete were discarded. The analysis employed both Statistical Package for Social Sciences (SPSS) version 26.0 and Smart PLS 3. The Statistical Package for Social Sciences (SPSS) was used for the analysis such as frequencies, means, standard deviations, independent sample t-test, correlation, and exploratory factor analysis. Smart PLS-SEM was used for Confirmatory Factor analysis, Structural Model evaluation, and other model fit indices that were explored in this study

3.7 Reliability and Validity

A crucial aspect of research is ensuring that the instrument created to assess specific concepts actually and accurately measures the concept. The validity, according to Ringle and Ting, (2018), relates to the extent to which an instrument assesses its intended emphasis. The validity of the research instrument will be examined through face, content, convergent, and discriminant validity (Henseler, Ringle, and Sarstedt, 2015). For content validity, the important issue according to Kerr and Churchill (2001), is the methodology used to develop the questionnaire. Content validity was assessed through a thorough examination of the previous empirical and theoretical work of investigated constructs. The face validity of the questionnaire was assessed through the pretest exercise of the questionnaire with selected managers as well as the supervisors' expert review of the applicability and suitability of the questionnaire to achieve the study's intended objectives.

To ensure that the constructs were truly distinct from each other and will capture some phenomena, both convergent and discriminant validity was established (Khalid et. al., 2012;

Kothari 2012). When two or more items are highly associated and measure the same construct, they are said to have convergent validity. In the views of Hair et al., (2011, 2014), to demonstrate the convergent validity of the reflective measurement model using PLS-SEM, a researcher needs to examine the average variance extracted (AVE) in which its value should be 0.50 or higher. Meanwhile, the discriminant validity which can be referred to as the degree to which the measures of one construct are distinct from another construct measurement, the study will examine two measures of the Fornell-Larcker Criterion and cross-loading (Henseler et al., 2015). The Fornell-Lacker Criterion postulates that “the latent construct shares more variance with its assigned indicators than other latent variables in structural model”. In statistical terms, it can also be said that each latent construct should have a greater average variance extracted (AVE) than the shared variance (squared correlation) of any other latent construct for the discriminant validity to have the cross-loading value in which the indicators loading of the associated latent construct should be higher than its loading with other constructs remaining (Hair et. al., 2011).

Reliability refers to the consistency repeatedly reached and the consistency that is consistently achieved which is evidence of the instrument’s stability and predictability y in measuring the concept (Mohajan, 2017). This could also be considered as being the capacity to replicate a study or study results. In the view of Khalid et al. (2012), they termed reliability measurement as the extent to which a measurement is devoid of random error by producing a consistent result. To measure the reliability of the instruments, the study of Hair et.al, (2012) which has proposed two tests of reliability i.e. the internal consistency and indicator of reliability will be used. Composite Reliability test instead of Cronbach Alpha was used to prioritize the variables as per their reliability during model estimate (does not imply all variables are equally reliable), making it

more appropriate for PLS-SEM. A Composite Reliability from 0.7 to 0.9 will indicate sufficient reliability of the measures.

3.8 Ethical Considerations/Issues

Research ethics are crucial in addition to creating effective collaborative work procedures. The permission of those who took part in it was acquired. Respondents were told that this was just an academic study. Participants or respondents were made aware of their responsibility in giving valuable information as well as the goal of the material. The study's goals were explained to the participants, and they understood and agreed to participate. Participants were also assured of their privacy and confidentiality, as well as the fact that the survey was completely optional. The researcher ought to protect the identity of study participants and the confidentiality of their disclosures until they consent to the publishing of private details (Armond et al. 2021). The questionnaire material did not ask for personal identification to ensure anonymity.

3.9 Profile of Public Procurement in Ghana

The role government procurement constitutes as stimuli for development has been an issue of particular interest over the past decade (Odero and Ayub, 2017; Liu et al., 2019; Patrucco et al., 2019; Raj et al., 2020). Public procurement provides varied contributions among countries, regions as well as sectors to underlying operations in health, environment, ICT, defense or infrastructure, etc (Lember et al., 2014; Edquist, 2015; 2016; Maria et al., 2019). Procurement, therefore, plays an integral role in any establishment whether public or private. According to OECD (2017), procurement constitutes approximately 15% - 20% GDP of developed economies. Governments in both developed and developing economies attach significant attention to the issue of procurement. Owing to this, various governments across the globe have attempted to reform and implement sound procurement policies and practices to enhance value

for many when procuring goods and services required to meet public needs (Osei-Tutu et al.,2010; Hazarika and Jena, 2017; Kinuthia et al.,2019). Unfortunately, public procurement outcomes or performance remain challenged despite various procurement reforms in developing economies, especially Sub Sahara Africa which Ghana is no exception (Schapper et al., 2006; Basheka and Bisangabasaija, 2010; Uyarra et al., 2014; Hazarika and Jena, 2017).

Efficiency and effectiveness remain two important measures of procurement performance. According to Anane and Kwarteng (2019), effective procurement occurs when previously defined goals and objectives regarding the acquisition of goods and services in any organization are met. This term connects actual and planned performance, which is used to make a decision. Following that, effective procurement connects planned and real obtained resources to achieve established goals and objectives. Achieving efficiency in public procurement is not just an issue of the buying entity but a joint effort of the supplier and buyer. This demonstrates that both the buyer and supplier are two important entities in ensuring efficiency in public procurement. Prior studies have also augured that the delivery of quality service is linked to an efficient procurement system (Meyer et al., 2017; Uygun and Ilie, 2018; Praveen et al., 2018).

Again, Amaratunga and Baldry (2002) underlined that procurement performance plays a critical role in increasing service quality.

In the lack of acceptable procurement performance, impediments arise, causing purchasing functions to worsen. Owing to this, developing economies are increasingly becoming aware of the relevance of effective management of the public procurement processes both at the control and local government levels (Basheka, 2017; Adjei-Bamfo et al.,2019; Brunette et al.,2019; Bawole and Adjei-Bamfo, 2020).

As stated earlier, procurement consumes a significant part of the government's budget, hence improving procurement performance will lead to great savings as well as enhance service delivery in the public sector. The procurement functions in the public sector especially in Africa have been ineffective and inefficient characterized by massive corruption (Cherop, 2016). Extant literature (Damoah et al., 2018; Rasul et al., 2018; Jacob and Lawan, 2020; Muhwezi et al., 2020; Gray, 2021) argues that the poor procurement performance in the public sector could be traced to poor contract management, poor planning, resolve to allocate staff completely, corruption and conflict of interest. Additionally, the World Bank (2001) identified corruption and conflict of interest as the major obstacles to public procurement performance. In Ghana, the public sector continues to make significant strides in its effort to ensure the availability of products for service delivery. However, the Public Procurement Authority (PPA) PPA, (2018) opines that the process of procuring goods, services, and works in the public sector inherent many challenges. Among the numerous challenges identified by the PPA assessment in 2018 included inadequate procurement planning, delay in payment, delivery problems, interference, poor inventory management and control, corruption, and conflict of interest. The numerous challenges faced by healthcare facilities coping with the increasing cost of healthcare delivery heartens the sustainability of the healthcare system. It is therefore imperative to develop strategies to maximize healthcare delivery with minimum cost or spending.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND DISCUSSION OF RESULT

4.1 Introduction

This chapter presents the findings from the data analysis. Analyses included descriptive statistics, exploratory factor analysis, and confirmatory factor analysis. SmartPLS 4 was used to analyze the hypotheses for this study. In the discussion part, the author analyzes the most important findings in more depth and makes comparisons to other studies with comparable aims.

4.2 Exploratory Factor Analysis

As a further verification, an exploratory factor analysis (EFA) using Promax rotation was carried out. When a factor's loading is over 0.6, it is "high," and when it's below 0.4, it is "low" (Hair et al., 1998). To ensure that the factor loadings are not too low, the cut-off criterion of 0.5 was used in this research. After determining the threshold, the elements from the adopted levels all have Item loadings on each factor average above 0.5. According to the latest findings, the sample size is sufficient, with a KMO of 0.941 and a Bartlett's test of sphericity value of 0.000 (the typical threshold for significance for this test is 0.70). (Kaiser et al., 1970). The study found a high degree of conformity between the items' loadings and the study's primary constructs, with loadings ranging from 0.783 to 0.933 for supplier selection, 0.911 to 0.943 for procurement performance, and 0.906 to 0.939 for stakeholder orientation (see table 4.1).

Table 4.1 KMO and Bartlett's Test

| KMO and Bartlett's Test | | |
|--|--------------------|----------|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | 0.941 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 3338.761 |
| | df | 136 |
| | Sig. | 0.000 |

4.2.1 Test for Common Method Bias and Sampling Adequacy

Quantitative research and self-reporting studies may be especially vulnerable to this kind of approach bias. To be considered valid, an experiment or theory must pass the generalized likelihood ratio test for bias in research designs. Common method bias may be mitigated by careful planning and experimentation. The survey was designed with due diligence, following some of the suggestions made by Podsakoff et al. (2003). Statisticians used Harman's one-factor analysis. Table 4.2 demonstrates that there is no risk of common technique bias since the percentage of factors extracted using a single method was 49%, which is much below the 50% threshold figure.

Table 4.2: Common Method Bias

| Component | Initial Eigenvalues | | | Extraction Sums of Squared Loadings | | |
|-----------|---------------------|---------------|--------------|-------------------------------------|---------------|--------------|
| | Total | % of Variance | Cumulative % | Total | % of Variance | Cumulative % |
| 1 | 9.867 | 49.336 | 49.336 | 9.867 | 49.336 | 49.336 |
| 2 | 2.031 | 10.157 | 59.493 | 2.031 | 10.157 | 59.493 |
| 3 | 1.535 | 7.675 | 67.168 | 1.535 | 7.675 | 67.168 |
| 4 | 0.921 | 4.606 | 71.774 | | | |
| 5 | 0.767 | 3.836 | 75.61 | | | |
| 6 | 0.643 | 3.214 | 78.824 | | | |
| 7 | 0.5 | 2.5 | 81.324 | | | |

| | | | | | | |
|--|-----------|-------|--------|--|--|--|
| 8 | 0.44 6 | 2.231 | 83.555 | | | |
| 9 | 0.41 8 | 2.089 | 85.644 | | | |
| 10 | 0.39 6 | 1.98 | 87.625 | | | |
| 11 | 0.39 1 | 1.956 | 89.581 | | | |
| 12 | 0.31 9 | 1.594 | 91.175 | | | |
| 13 | 0.30 3 | 1.515 | 92.69 | | | |
| 14 | 0.28 5 | 1.423 | 94.113 | | | |
| 15 | 0.23 8 | 1.192 | 95.305 | | | |
| 16 | 0.21 5 | 1.076 | 96.381 | | | |
| 17 | 0.20 6 | 1.03 | 97.411 | | | |
| 18 | 0.19 9 | 0.994 | 98.405 | | | |
| 19 | 0.16 7 | 0.836 | 99.24 | | | |
| 20 | 0.15 2 | 0.76 | 100 | | | |
| Extraction Method: Principal Component Analysis. | | | | | | |

Again, KMO sample adequacy for the study, shown in Table 4.3, was 0.941, proving the study's reliability. This result demonstrates the high degree of correlation between values along this dimension in contrast to both zero and the identity matrix. Exploratory factor analysis has the potential to offer reliable estimates when working with a predetermined sample size. As can be seen in table 4.3, significance is attained when the p-value is less than 0.05. Inferences from the results suggest that the observed internal correlations among the variables may have been caused by reasons other than sampling variance. To evaluate the dormant idea, most measuring methodologies have undergone major revisions.

Table 4.3: KMO and Bartlett's Test

| KMO and Bartlett's Test | | |
|--|--------------------|---------|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | 0.941 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 5857.14 |
| | df | 300 |
| | Sig. | 0.000 |

4.2.2 Non-response Bias

The research looked at the likelihood of bias in the participants' replies. Non-response bias arises when a fewer proportion of the population replies to a survey than would be predicted based on the population as a whole. When a survey invites a group of people but only a subset of them responds, this is known as non-response bias. This lowers the validity of the findings and the reliability of the data acquired. In order to reduce the impact of this bias, this study compared the responses of early and late respondents. Oppenheim (2000) states that there should be no differences in the dependent or independent variables between the two groups. This proves there was no issue with non-response bias and that the samples are indeed representative of the target population. The first 69 answers were considered early responses, while the subsequent 69 were considered late responses. After that, the study used T-tests to look for signs of non-response bias. Results are shown in Table 4.2. T-test results showed no statistically significant differences. In conclusion, the research demonstrates there is consistency between the first- and last-month responses.

Table 4.4: Results of Independent-Samples t-Test for Non-Response Bias

| | Group | Mean | Levene's Test for Equality of Variances | | |
|--------------------|-------|---------|--|-------|-------|
| | | | F | Sig. | T |
| Supplier Selection | 1.00 | 30.7536 | 0.012 | 0.912 | 0.365 |
| | 2.00 | 30.2174 | | | |

| | | | | | |
|-------------------------|------|---------|-------|-------|-------|
| Stakeholder Orientation | 1.00 | 19.9855 | 0.079 | 0.779 | 0.416 |
| | 2.00 | 19.6232 | | | |
| Procurement Performance | 1.00 | 15.7681 | 0.014 | 0.907 | 0.359 |
| | 2.00 | 15.5217 | | | |

4.3 Demographic Information

The demographic details of the participants are shown below. The results are shown in table 4.4 below. From the result, the female participants represent 39.9% of the sample while the male participants represent 60.1%. The results also show that 34.1% of the participants were around the age of 18 and 30 years, 50.0% were around 31 and 40 years, 10.1% were around 41 and 50 years and 5.8% were also aged above 50 years. The findings also indicated that 45.7% of the participants were bachelor's degree holders, 10.1% were diploma holders, and 36.2% were master's/Ph.D. holders, 2.2% hold other certificates and 5.8% were senior high school certificate holders. The findings also indicated that 28.3% of the participants were business owners, 5.1% were business owners and managers, 15.2% were managers, 44.9% hold other positions and 6.5% of the remaining were production managers. From the data also, 63.0% of the participants indicated their firms have been in operation for 1-5 years, 6.5% also indicated 11-15 years, 8.0% indicated 6 years and above and 22.5% of the remaining also indicated 6-10 years. From the data also, 19.6% of the participants indicated 30-99 employees in their firms, 29.7% of them also indicated 5-29 employees in their firms, 21.0% also indicated less than 5 employees in their firms and 22.5% of the remaining indicated more than 100 employees in their firms. From the result also, 2.9% of the participants indicated their firm is a fully-foreign owned, 87.7% also indicated fully locally owned and 9.4% of the remaining also indicated jointly Ghanaian and foreign-owned.

Table 4.5: Demographic Information

| Variables | Dimension | Frequency | Percent |
|--|-----------------------------------|------------------|----------------|
| Gender | Female | 55 | 39.9 |
| | Male | 83 | 60.1 |
| Age | 18-30 years | 47 | 34.1 |
| | 31-40 years | 69 | 50.0 |
| | 41-50 years | 14 | 10.1 |
| | Above 50 years | 8 | 5.8 |
| Level of Education | Bachelor Degree | 63 | 45.7 |
| | Diploma | 14 | 10.1 |
| | Graduate Studies (Master / Ph.D.) | 50 | 36.2 |
| | Others | 3 | 2.2 |
| Your Position in the Firm | Senior High School | 8 | 5.8 |
| | Business Owner | 39 | 28.3 |
| | Business Owner & Manager | 7 | 5.1 |
| | Manager | 21 | 15.2 |
| | Others | 62 | 44.9 |
| How many years have your firm been in operation? | Production Manager | 9 | 6.5 |
| | 1 - 5 years | 87 | 63.0 |
| | 11-15 years | 9 | 6.5 |
| | 16 years and above | 11 | 8.0 |
| How many employees are in the firm? | 6 - 10 years | 31 | 22.5 |
| | 30-99 employees | 27 | 19.6 |
| | 5-29 employees | 41 | 29.7 |
| | Less than 5 employees | 29 | 21.0 |
| | More than 100 | 10 | 7.2 |
| Type of ownership | than 100 | 31 | 22.5 |
| | Fully foreign owned | 4 | 2.9 |
| | Fully locally owned | 121 | 87.7 |
| | Jointly Ghanaian & foreign-owned | 13 | 9.4 |
| Total | | 138 | 100.0 |

4.4 Measurement Model Assessment

To double-check items, the SmartPLS software evaluates the metrics used in the second phase of testing. In certain cases, the outer model may be more accurately referred to as the

measurement model. Connections between a hidden variable and its indications are described by outer models, also known as measuring models (Aburumman et al., 2023). The constructs' and observable components' relationships are defined by the measurement model. In order to put this theory into reality, scientists must concentrate on the most instructive variables. Items (indicators) are scored based on how well they match up with a theoretical framework. Validity and reliability of the survey's instrument and precise measurement of variables may be enhanced by evaluating the measurement model

Table 4.6: Reliability and Validity

| Confirmatory Factor Analysis Scale | Factor Loadings (t-values) | Descriptive Statistics | | VIF |
|---|-------------------------------|------------------------|-----------|-------|
| | | Mean | SD | |
| <i>Supplier Selection (CA=0.958; CR=0.965; AVE=0.776)</i> | | | | |
| Performance drives our supply decisions. | 0.907 (29.126) | 3.558 | 1.37 3 | 1.795 |
| We choose suppliers by price-to-performance. | 0.900(28.796) | 3.587 | 1.33 4 | 2.767 |
| We prefer buffer-capable suppliers for unanticipated demand swings. | 0.933(29.796) | 3.616 | 1.34 2 | 1.711 |
| Our suppliers are flexible and can keep supply flowing. | 0.783(23.518) | 4.036 | 1.25 9 | 3.041 |
| Suppliers' knowledge boosts operational efficiency and resilience. | 0.905(37.090) | 3.717 | 1.24 5 | 2.868 |
| Our organization routinely adjusts supplier selection criteria to satisfy supply chain demands. | 0.879(35.929) | 3.935 | 1.13 1 | 3.235 |
| We choose suppliers who are aware of and sensitive to worldwide supply chain changes and prepared to provide important expertise. | 0.851 (40.739) | 4.087 | 1.06 | 2.679 |
| We deal with adaptable suppliers. | 0.878(28.401) | 3.949 | 0.98 8 | 3.098 |
| <i>Procurement Performance (CA=0.940; CR=0.957; AVE=0.848)</i> | | | | |
| We deliver promptly. | 0.943(34.435) | 3.906 | 1.12 2 | 3.126 |
| We provide just the right quantity. | 0.915(36.238) | 3.884 | 1.06 4 | 2.553 |
| We provide low prices and fast delivery. | 0.914(59.676) | 3.833 | 1.10 1 | 2.610 |

| | | | | |
|---|--------------|-------|------|-------|
| We thrive at excellent delivery. | 0.911(62.179 | 4.022 | 1.06 | 1.649 |
| |) | | | |
| Stakeholder Orientation (CA=0.941; CR=0.957; AVE=0.849) | | | | |
| Stockholder value drives our objectives. | 0.921(35.721 | 3.957 | 1.18 | 3.088 |
| |) | | 5 | |
| Top management meets with shareholders and compares the company's stock value to competitors. | 0.939(44.678 | 4.014 | 1.07 | 3.028 |
| |) | | 7 | |
| We regularly PR to stockholders. | 0.906(38.152 | 3.942 | 1.11 | 2.485 |
| |) | | 5 | |
| Stockholder value drives our objectives. | 0.920(38.171 | 3.942 | 1.07 | 2.626 |
| |) | | 5 | |

Discriminant validity was then used to evaluate how significantly one independent variable differed from the other independent variables in the model of the experimental framework. For a discriminant function to work, the degree of correlation between its input variables must be lower than the square root of the average variance (AVE) among its components (Fornell & Larcker, 1981). Table 4.5 displays the square roots of the AVE in bold diagonal figures, while non-diagonal figures highlight the link between the variables. The constructs are highly discriminant because diagonal values are larger than non-diagonal ones.

Due to shortcomings in the Fornell-Larcker criterion, a more stringent metric for assessing discriminant validity known as the heterotrait-monotrait (HTMT) ratio of correlations has been devised (Hair et al., 2019; Henseler et al., 2015; Voorhees et al., 2016). The scientific community has concluded that HTMT values below 0.90 are optimal. To do this, the researcher divides the average value of the items' correlations across constructs by the geometric mean of the average correlations for scales measuring the same variable (Henseler et al., 2015). According to Table 4.6, the maximum HTMT that the model can handle is 0.823.

Table 4.5 Fornell-Larcker test

| Variable | 1 | 2 | 3 |
|-------------------------|--------------|---|---|
| Procurement Performance | 0.921 | | |

| | | | |
|-------------------------------|--------------|--------------|--------------|
| Stakeholder Orientation | 0.733 | 0.921 | |
| Supplier Selection | 0.850 | 0.807 | 0.881 |
| Constructs | 1 | 2 | 3 |
| Adaptive Capability | 0.833 | | |
| Big Data Analytics Capability | 0.570 | 0.799 | |
| Creativity | 0.745 | 0.634 | 0.823 |

Table 4.6 HTMT Test results

| |
|-------------------------|
| Variables |
| Procurement Performance |
| Stakeholder Orientation |
| Supplier Selection |

4.4.1 Descriptive Statistics

A statistical overview of the study's variables is shown below. While means provide a general description of the data, standard deviations show how well the means account for the data (Field, 2009). Table 4.4 displays the descriptive analysis findings. The data demonstrated the supplier selection score (M=3.81; SD=1.22), procurement performance score (M=3.91; SD=1.087), and stakeholder orientation score (M=3.96; SD=1.113). The findings show that for all constructs, the observed mean was consistent with the computed or statistical mean.

Table 4.7: Descriptive Statistics

| Constructs | Mean | Standard Deviation |
|-------------------------------|-------------|---------------------------|
| Big Data Analytics Capability | 3.95 | 0.840 |
| Creativity | 3.97 | 0.885 |
| Adaptive Capability | 3.96 | 0.811 |

The degree to which one independent variable varied from the other independent variables in the model of the research context was then assessed using discriminant validity. To be effective, the correlation between a discriminant function's input variables must be less than the square root of the average variance (AVE) among those variables (Fornell & Larcker, 1981). Square roots of

the AVE are shown in bold diagonal figures in Table 4.8, while the relationship between the variables is highlighted by means of non-diagonal figures. Given that diagonal values are greater than non-diagonal ones, the constructs are very discriminant.

In response to objections raised against the Fornell-Larcker criterion, a more stringent measure of discriminant validity, the heterotrait-monotrait (HTMT) ratio of correlations, has been devised (Hair et al., 2019; Henseler et al., 2015; Voorhees et al., 2016). Researchers recommend utilizing HTMT values below 0.90, which is defined as the (geometric) mean of the average correlations for scales measuring the same variable divided by the average value of the items' correlations across constructs (Henseler et al., 2015). Table 4.9 indicates that the model is acceptable with a maximum HTMT of 0.828.

Table 4.8: HTMT Test results

| Constructs | 1 | 2 | 3 |
|-------------------------------|----------|----------|----------|
| Adaptive Capability | | | |
| Big Data Analytics Capability | 0.626 | | |
| Creativity | 0.828 | 0.695 | |

4.5 Model Fit Indices

Valid values and ranges may be found for the Fitness of Extracted-Index, SRMR, Root Mean Square of Approximation, and Chi-Square (Table 4.9). Both the extracted and unusual indices are under 0.9, the threshold for approval. The presence of a square root or common root in a residual indicates that it is not infinitely small. As a result, future research must take into account all relevant factors and points of view.

Table 4.9: Fit Summary

| Indices | Saturated model | Estimated model |
|----------------|------------------------|------------------------|
| SRMR | 0.053 | 0.053 |
| d_ULS | 0.384 | 0.389 |
| d_G | 0.957 | 0.958 |
| Chi-square | 636.907 | 641.962 |
| NFI | 0.804 | 0.802 |

4.6 Structural Analysis Results

The researcher checked the accuracy of the measurement model before evaluating the validity of the structural model and the postulated connections. Collinearity was checked before evaluating the structural linkages to rule out any potential for skewed findings. For this purpose, the latent variables' variance inflation factors (VIFs) were calculated. The VIF values were between 1.64 to 3.098, which is below the minimum threshold of 3.3 (Hair et al., 2019). Then, the R² values of the endogenous variables were analyzed to see how well the model explained the data inside the sample. R² values of 0.75, 0.50, and 0.25 are indicative of strong, moderate, and poor correlation, respectively (Hair et al., 2011). As indicated in table 4.7 and figure 4.1, the high R² value (0.932) for procurement performance indicates strong explanatory power.

The prediction accuracy of the PLS path model may also be evaluated by computing its Q² value (Geisser, 1974; Stone, 1974). The predictive power of a structural model for an endogenous construct may be measured, on the whole, if its Q² value is greater than zero (Hair et al., 2019). From table 4.7, the Q² score for procurement performance is 0.926, indicating that the model has predictive power.

Table 4.10: Coefficient of Determination

| Endogenous Constructs | R-square | R-square adjusted | Q²predict |
|------------------------------|-----------------|--------------------------|-----------------------------|
| Procurement Performance | 0.932 | 0.930 | 0.926 |

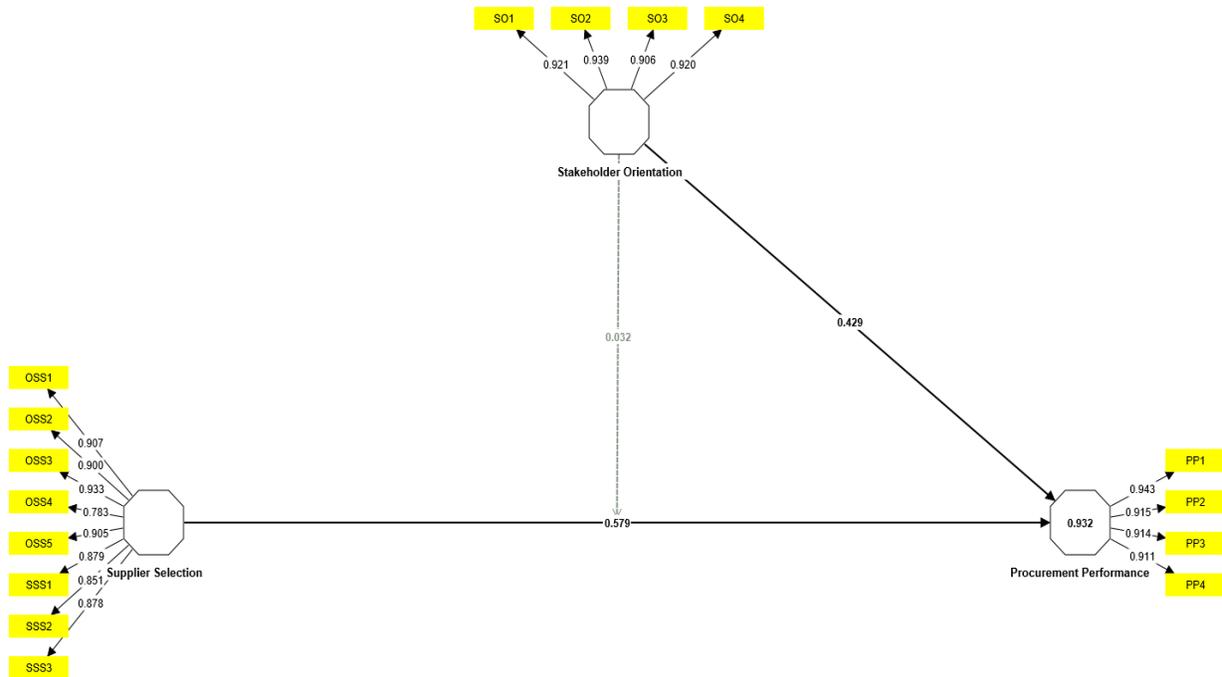


Figure 4.1: Measurement Model Assessment

4.7 Hypotheses for Direct and Indirect Relationship

In this case, SmartPLS 4 is used to test the validity of the researcher's hypotheses. The main purpose of this study is to examine the moderating function of stakeholder orientation in the relationship between supplier selection (strategic and operational supplier selection) and procurement performance in the public sector of Ghana. Three distinct aims were proposed in response to the inadequacies that were highlighted in the problem description. A summary of the findings may be found in Table 4.8.

The study's first objective was to learn whether and how supplier selection practices in the public sector have influenced procurement performance. Table 4.8 shows the statistically significant and positive impact that supplier selection has on the performance of public sector procurement in Ghana ($B=0.429$; $t=5.162$; $p\text{-value}=0.000 < 0.05$). The findings of this research provide support to the proposed relationship between variables. This further illustrates that everything

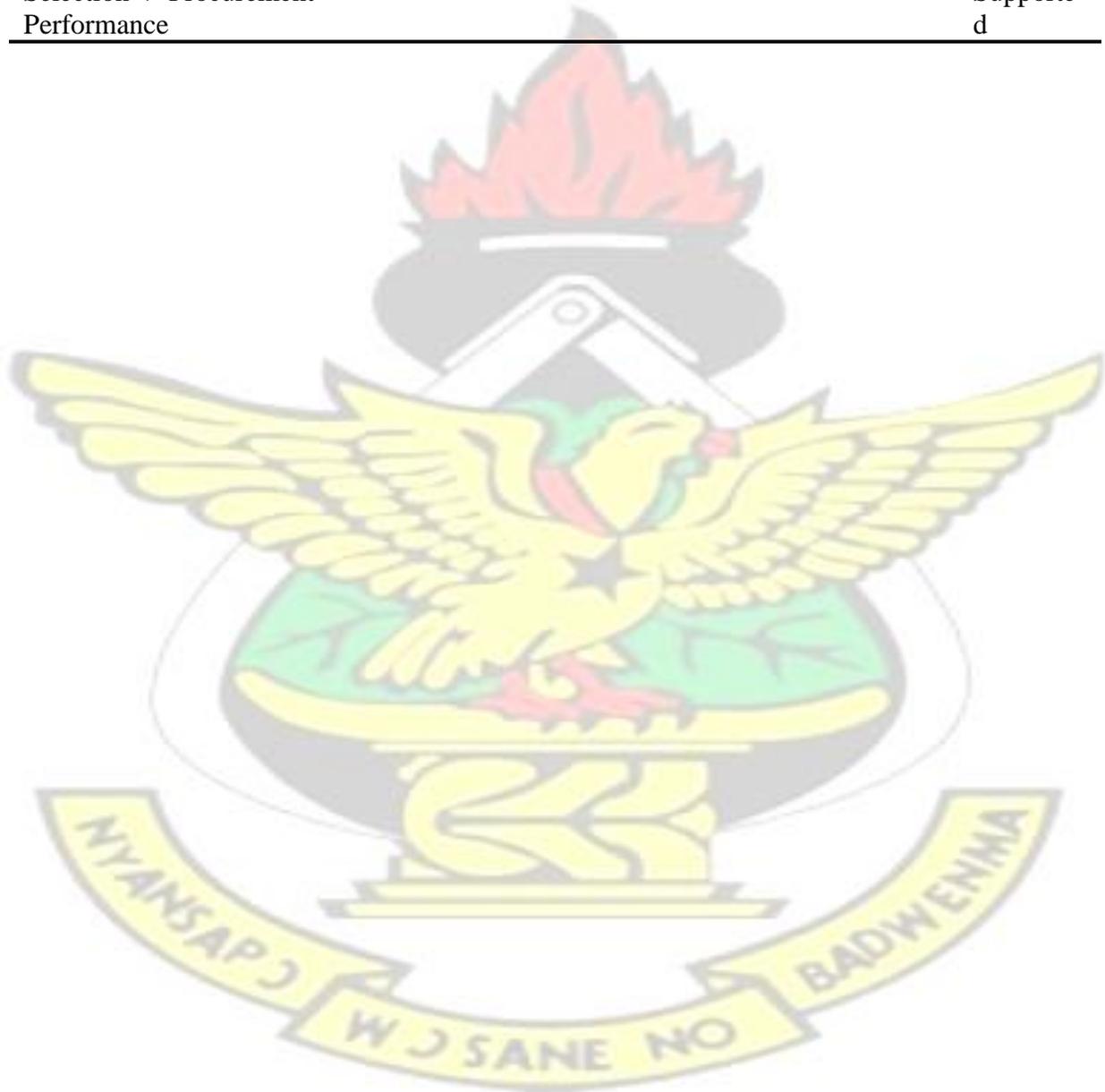
else being equal, 42.9% of the variation in public sector procurement performance may be attributed to the magnitude to which supplier selection is prioritized. The findings indicate that management participation in the selection of suppliers would improve the efficiency of public sector procurement.

The second phase of the study intended to determine whether and how stakeholder orientation had an impact on the procurement performance of the public sectors in Ghana. From Table 4.8, it can be observed that there is a positive and statistically significant influence of stakeholder orientation on the procurement performance of the public sector ($B=0.579$; $t=7.542$; $p\text{-value}=0.000 < 0.05$). The findings of the research support the existence of the hypothesized connection between the two variables. In addition, this shows that 57.9% of the variation in procurement performance may be attributed to the level to which public sectors emphasize stakeholder orientation. According to the findings, improved procurement performance would ensue if public sector managers actively engaged in stakeholder orientation.

The study's third objective was to assess whether or not stakeholder orientation moderated the connection between supplier selection and procurement performance for public sectors in Ghana. Table. 4.8 shows that that moderating effect of stakeholder orientation on the connection between supplier selection and procurement performance is not statistically significant ($B=0.032$; $t=1.251$; $p\text{-value}=0.000 < 0.05$). The data contradicts the hypothesis that there is a link between the factors. As a consequence, the findings suggest that stakeholder orientation does not play a moderating role in the connection between supplier selection and procurement performance. Based on the results, it seems that the effect of supplier selection on procurement performance is unaffected by stakeholder orientation. Therefore, management's emphasis on stakeholders won't influence procurement performance via supplier selection.

Table 4.13: Hypotheses for Direct Relationship

| Hypotheses | Path Coefficient | Error | T Statistics | P Values | Decision |
|---|------------------|-------|--------------|----------|---------------|
| Supplier Selection -> Procurement Performance | 0.429 | 0.083 | 5.162 | 0.000 | Supported |
| Stakeholder Orientation -> Procurement Performance | 0.579 | 0.077 | 7.542 | 0.000 | Supported |
| Stakeholder Orientation x Supplier Selection -> Procurement Performance | 0.032 | 0.026 | 1.251 | 0.211 | Not Supported |



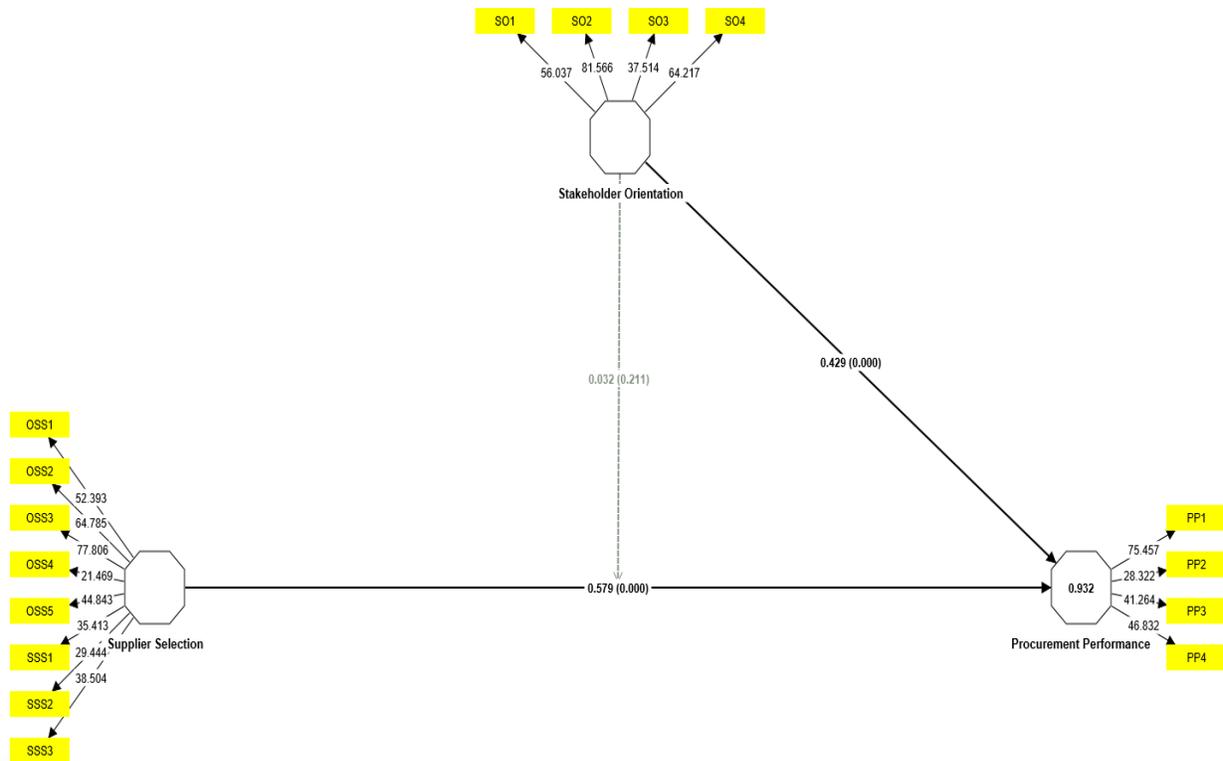


Figure 4.2 Structure Model Evaluation

4.8 Discussion of Findings

This part reviews the literature that pertains to the primary findings and briefly describes them. The main purpose of this study is to examine the moderating function of stakeholder orientation in the relationship between supplier selection (strategic and operational supplier selection) and procurement performance in the public sector of Ghana. Three distinct aims were proposed in response to the inadequacies that were highlighted in the problem description. The results are decomposed into the areas below.

The study's first objective was to learn whether and how supplier selection practices in the public sector have influenced procurement performance. The result showed the statistically significant and positive impact that supplier selection has on the performance of public sector procurement

in Ghana ($B=0.429$; $t=5.162$; $p\text{-value}=0.000 <0.05$). The findings of this research provide support to the proposed relationship between variables. This further illustrates that everything else being equal, 42.9% of the variation in public sector procurement performance may be attributed to the magnitude to which supplier selection is prioritized. The findings indicate that management participation in the selection of suppliers would improve the efficiency of public sector procurement. This finding is per the stakeholder theory, which postulates that businesses should choose their suppliers based on how well they perform across three criteria (economic, environmental, and social) to gain a competitive edge. To wit: (Jain., and Singh., 2020). The results are consistent with those discovered by Sabri et al. (2022), who looked at the impact of supplier selection criteria on performance and came to the same conclusion that it improved performance. Further, this finding is consistent with the research conducted by Sharma and Joshi. (2020), which analyzes the effects of digital supplier selection on business performance. The outcome of this study demonstrates a favorable correlation between supplier core competence and performance. These results are also consistent with those of Alikhani et al. (2019), who similarly analyze the impact of supplier selection on performance by focusing on its function and key capabilities. Interviews were used as a kind of qualitative research for this study. The information was put to the test using sensitivity analysis and data envelopment analysis in this research. The results show that considering potential risks when choosing suppliers may boost performance. Similarly, Famiyeh and Kwarteng (2018) found that strategic supplier selection had a beneficial influence on performance.

The second phase of the study intended to determine whether and how stakeholder orientation had an impact on the procurement performance of the public sectors in Ghana. The result is that there is a positive and statistically significant influence of stakeholder orientation on the

procurement performance of the public sector ($B=0.579$; $t=7.542$; $p\text{-value}=0.000 < 0.05$). The findings of the research support the existence of the hypothesized connection between the two variables. In addition, this shows that 57.9% of the variation in procurement performance may be attributed to the level to which public sectors emphasize stakeholder orientation. According to the findings, improved procurement performance would ensue if public sector managers actively engaged in stakeholder orientation. The results corroborate the stakeholder theory, which proposes that a company is more likely to achieve long-term business success if it prioritizes the requirements of both its stakeholders and its investors (2020). The results are consistent with the research conducted by Thanh et al. (2021), who look at the effect of CSR on business results in the area of procurement. As the study's findings show, CSR has a tangible effect on productivity. The findings corroborate those of Kannan, D. (2018), who also looked at the impact of stakeholder orientation on performance and found that it does have an impact.

The study's third objective was to assess whether or not stakeholder orientation moderated the connection between supplier selection and procurement performance for public sectors in Ghana. The findings revealed that the moderating effect of stakeholder orientation on the connection between supplier selection and procurement performance is not statistically significant ($B=0.032$; $t=1.251$; $p\text{-value}=0.000 < 0.05$). The data contradicts the hypothesis that there is a link between the factors. As a consequence, the findings suggest that stakeholder orientation does not play a moderating role in the connection between supplier selection and procurement performance. Based on the results, it seems that the effect of supplier selection on procurement performance is unaffected by stakeholder orientation. Therefore, management's emphasis on stakeholders won't influence procurement performance via supplier selection. However, the findings disprove the idea that good stakeholder relationship management is a crucial factor

when choosing suppliers (Kannan, D., 2018). This research contradicts the findings of Park et al. (2014), who looked at how different groups of stakeholders affected CSR practices and concluded that both primary (consumers, internal managers, employees, and business collaborators) and secondary (governments, media, local community, and NGOs) stakeholders have an impact on how firms choose their suppliers, which in turn improves performance.



CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS FOR FUTURE

RESEARCH

5.1 Introduction

The last chapter of the paper provides a concise summary of the study's results, conclusions, and suggestions for further research. Both the study's limits and some ideas for further exploration are provided.

5.2 Summary

The main purpose of this study is to examine the moderating function of stakeholder orientation in the relationship between supplier selection (strategic and operational supplier selection) and procurement performance in the public sector of Ghana. Three distinct aims were proposed in response to the inadequacies that were highlighted in the problem description. In the following paragraphs, the researcher briefly summarizes both the experimental findings and the findings drawn from the existing literature. Following a logical structure that reflects the aims of the study, the findings are presented.

5.2.1 Effect of Supplier Selection on Procurement Performance The study's first objective was to learn whether and how supplier selection practices in the public sector have influenced procurement performance. The result showed the statistically significant and positive impact that supplier selection has on the performance of public sector procurement in Ghana. The findings of this research provide support to the proposed relationship between variables. This further illustrates that everything else being equal, variations in public sector procurement performance may be attributed to the magnitude to which supplier selection is prioritized. The findings

indicate that management participation in the selection of suppliers would improve the efficiency of public sector procurement.

Choosing a reliable supplier is essential for the success of any business. Poor supplier performance, supply interruptions, and process inefficiencies may result from a lack of precision in the supplier selection process. Companies that don't have a well-defined vendor selection procedure have a hard time cutting wasteful spending. When selecting suppliers, it's important to use a methodical and organized approach so that those chosen are equipped with the necessary information and training to execute a good job and can reach their maximum potential. As a result, the institution will see financial savings, higher quality, more efficacy, and higher efficiency. It has been shown that supplier assessment may function as a tool to affect the actions of both the purchasing and supplying organizations in the future. Organizations may enhance their procurement performance by increasing supplier performance in response to objectives tied to specific areas of supplier expertise. In addition to lowering production costs and speeding up time to market, the selection procedure also improves product quality. The success of a company that buys goods and services depends heavily on the efficiency of its suppliers. When suppliers don't come through, a company's supply chain performance declines, and executives start searching for methods to find a replacement. Common supplier failures may be broken down into two categories: quality failures and time problems, both of which arise from a lack of using efficient solutions for supplier selection. The timeliness problems include things like late deliveries, back orders, unpredictable lead times, and inaccurate shipments, while quality errors may affect the price of the purchasing companies.

5.2.2 The relationship between Stakeholder Orientation on Procurement Performance

The second phase of the study intended to determine whether and how stakeholder orientation had an impact on the procurement performance of the public sectors in Ghana. The result is that there is a positive and statistically significant influence of stakeholder orientation on the procurement performance of the public sector. The findings of the research support the existence of the hypothesized connection between the two variables. In addition, this shows that variations in procurement performance may be attributed to the level to which public sectors emphasize stakeholder orientation. According to the findings, improved procurement performance would ensue if public sector managers actively engaged in stakeholder orientation.

There are a lot of people, both within and outside of an organization, who cares about the strategy it uses to get its goods and services to customers. Customers, clients, workers, shareholders, communities, the environment, government, conventional and social media, and so on are all examples of stakeholders. Although all stakeholders are important to a company's success, some are more important than others. When it comes to sway and interest among corporate decision-makers, various stakeholder groups have varied amounts of weight. Having productive conversations with stakeholders may help you save both time and money. When corporations include their stakeholders, they increase their chances of completing a project on schedule and under budget. Getting rid of obstacles and preparing for potential setbacks might help your business save money. There should be a sense of responsibility on the part of businesses toward their stakeholders. The act of making a purchase always involves making some form of commitment. Both the buyer and the seller provide assurances about the veracity of the money or credit being used. However, things between them may get complicated very soon. Customers have the right to expect that the companies they support will do their part to improve the local

community and safeguard the global environment in exchange for their loyalty and spending dollars. Workers have a right to expect a specific wage in exchange for their efforts.

5.2.3 The moderating role of Stakeholder Orientation on the relationship between Supplier Selection and Procurement Performance

The study's third objective was to assess whether or not stakeholder orientation moderated the connection between supplier selection and procurement performance for public sectors in Ghana. The findings revealed that the moderating effect of stakeholder orientation on the connection between supplier selection and procurement performance is not statistically significant. The data contradicts the hypothesis that there is a link between the factors. As a consequence, the findings suggest that stakeholder orientation does not play a moderating role in the connection between supplier selection and procurement performance. Based on the results, it seems that the effect of supplier selection on procurement performance is unaffected by stakeholder orientation. Therefore, management's emphasis on stakeholders won't influence procurement performance via supplier selection. However, these findings contradict many studies that found that stakeholder management make organization select their supplies appropriately and, in the end, will enhance performance.

How successfully a business handles its connections with stakeholders including customers, workers, suppliers, communities, shareholders, and others is crucial to the achievement of its objectives. Providing value to stakeholders is simple for businesses, and they will reward that effort by helping businesses succeed at SCM. Therefore, a company's reputation suffers as a result of poor management of its relationships with its stakeholders, which has a direct influence on the bottom line. Decisions made by a company benefit from having a wide range of stakeholders. Because of this, the success of an organization depends on how well its leaders

manage their connections with various constituencies. Firms' stakeholders may make use of advantageous positioning to strategically choose their suppliers in accordance with a number of criteria that are consistent with the organization's aims and objectives, with predictable outcomes for both market value and performance. Procurement operations may benefit from consulting with the appropriate internal stakeholders to better understand strategic concerns, cost-saving targets, value-add, compliance, and organizational feedback.

5.3 Conclusion

The primary objective of this research is to analyze the moderating impact of stakeholder orientation on the connection between strategic and operational supplier selection and procurement performance in Ghana's public sector. Three separate goals were presented as solutions to the issues mentioned in the problem statement. Researchers employed a cross-sectional survey design and a quantitative approach that merged descriptive research design to achieve their aims. Participants in the research included high-level executives such as purchasing agents, department heads, warehouse supervisors, and members of entity tender committees. A total of 138 public sector workers in Ghana were surveyed using a standard questionnaire. Participants were chosen using a combination of convenience and purposeful sampling methods. Structural Equation Modeling in the form of SmartPLS 4 was used to verify or disprove the study's hypotheses. Summary statistics (descriptive statistics) were utilized to summarize the data. According to the results of the research, supplier selection significantly affects the procurement performance of the public sector. Findings also showed that stakeholder orientation contributes considerably to procurement performance in the public sector, although stakeholder orientation did not moderate the connection between supplier selection and procurement

performance. Findings suggest that managers in the public sector may improve their procurement performance by committing to and focusing on supplier selection and stakeholder orientation.

5.4 Recommendations

The primary objective of this research is to analyze the moderating impact of stakeholder orientation on the connection between strategic and operational supplier selection and procurement performance in Ghana's public sector. According to the results of the research, supplier selection significantly affects the procurement performance of the public sector. Findings also showed that stakeholder orientation contributes considerably to procurement performance in the public sector, although stakeholder orientation did not moderate the connection between supplier selection and procurement performance. Findings suggest that managers in the public sector may improve their procurement performance by committing to and focusing on supplier selection and stakeholder orientation. Based on the results, the research suggests the foregoing.

1. The research found that supplier selection significantly affected procurement performance, suggesting that focusing on improving supplier selection will also improve procurement performance. In light of this, it is crucial for public sector company managers to refine their supplier selection processes by zeroing in on the suppliers most likely to help them achieve their objectives through analyzing supply performance.
2. Evidence suggests that stakeholder orientation also helps boost procurement performance, thus it stands to reason that increasing stakeholder orientation will have the same effect. Thus, it is the manager's duty to enhance stakeholder orientation by generating a long-term perspective that justifies short-term financial sacrifices in order to accomplish that shared

goal and persist over time, and by thus creating an organization with a cohesive identity and a common purpose.

3. Although the study's moderating finding showed that stakeholder orientation did not moderate the relationship between supplier selection and procurement performance, many other studies in this area found stakeholder orientation to have a significant impact. Managers in the public sector must allocate substantial resources toward fostering a culture of stakeholder orientation.

5.5 Limitations and Future Research Directions

Respondents may be hesitant to provide information out of concern that it will be used to intimidate them or portray them in an unfavorable light. Some people you ask to take out a survey could refuse. The issue was addressed by including an introductory letter from the University informing participants that their participation in the study was voluntary and that any information they provided would be kept private and used only for research. There is a risk of extending the data collecting period since employees have very full schedules and cannot spare the time to complete the questionnaire in a timely manner. The use of an online survey helped to compensate for this drawback. The study urges more research on the effects of government policy on private manufacturing enterprises and other sectors of the economy, such as farm production firms, since the scope of our study was necessarily limited. The impact of electronic procurement on the performance of the procurement function may be studied in a similar fashion. Research may be conducted to evaluate the quality of procurement services from the perspective of the people who actually use them, rather than the people who work in procurement. More research is needed to establish a causal link between supplier assessment criteria and organizational success in other

public purchasing agencies. The media industry's criterion for choosing suppliers is an area that may benefit from more research.

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REFERENCES

- Ahuja, S. and Chan, Y.E., 2021. Digital innovation in small firms of rural Canada. In *Rural Entrepreneurship and Innovation in the Digital Era* (pp. 60-79). IGI Global.
- Akter, S., Wamba, S.F., Gunasekaran, A., Dubey, R. and Childe, S.J., 2016. How to improve firm performance using big data analytics capability and business strategy alignment?. *International Journal of Production Economics*, 182, pp.113-131.
- Algarni, M.A., Ali, M., Albort-Morant, G., Leal-Rodríguez, A.L., Latan, H., Ali, I. and Ullah, S., 2022. Make green, live clean! Linking adaptive capability and environmental behavior with financial performance through corporate sustainability performance. *Journal of Cleaner Production*, 346, p.131156.
- Ali, B.J. and Anwar, G., 2021. The Effect of Marketing Culture Aspects of Healthcare Care on Marketing Creativity. Ali, BJ, & Anwar, G.(2021). The Effect of Marketing Culture Aspects of Healthcare Care on Marketing Creativity. *International Journal of English Literature and Social Sciences*, 6(2), pp.171-182.
- Aljumah, A.I., Nuseir, M.T. and Alam, M.M., 2021. Organizational performance and capabilities to analyze big data: do the ambidexterity and business value of big data analytics matter?. *Business Process Management Journal*.
- Alkhatib, A.W. and Valeri, M., 2022. Can intellectual capital promote the competitive advantage? Service innovation and big data analytics capabilities in a moderated mediation model. *European Journal of Innovation Management*, (ahead-of-print).
- Ashaari, M.A., Singh, K.S.D., Abbasi, G.A., Amran, A. and Liebana-Cabanillas, F.J., 2021. Big data analytics capability for improved performance of higher education institutions in the Era of IR 4.0: A multi-analytical SEM & ANN perspective. *Technological Forecasting and Social Change*, 173, p.121119.
- Awan, U., Shamim, S., Khan, Z., Zia, N.U., Shariq, S.M. and Khan, M.N., 2021. Big data analytics capability and decision-making: The role of data-driven insight on circular economy performance. *Technological Forecasting and Social Change*, 168, p.120766.
- Barbot, B., Hass, R.W. and Reiter-Palmon, R., 2019. Creativity assessment in psychological research:(Re) setting the standards. *Psychology of Aesthetics, Creativity, and the Arts*, 13(2), p.233.
- Barney, J., Wright, M. and Ketchen Jr, D.J., 2001. The resource-based view of the firm: Ten years after 1991. *Journal of management*, 27(6), pp.625-641.
- Barney, J.B., 2001. Resource-based theories of competitive advantage: A ten-year retrospective on the resource-based view. *Journal of management*, 27(6), pp.643-650.
- Beaty, R.E. and Johnson, D.R., 2021. Automating creativity assessment with SemDis: An open platform for computing semantic distance. *Behavior research methods*, 53(2), pp.757-780.
- Boso, N., Donbesuur, F., Bendega, T., Annan, J. and Adeola, O., 2017. Does organizational creativity always drive market performance?. *Psychology & Marketing*, 34(11), pp.1004-1015.

- Camisón, C., Puig-Denia, A., Forés, B., Fabra, M.E., Muñoz, A. and Munoz Martinez, C., 2016. The importance of internal resources and capabilities and destination resources to explain firm competitive position in the Spanish tourism industry. *International Journal of Tourism Research*, 18(4), pp.341-356.
- Capurro, R., Fiorentino, R., Garzella, S. and Giudici, A., 2021. Big data analytics in innovation processes: which forms of dynamic capabilities should be developed and how to embrace digitization?. *European Journal of Innovation Management*.
- Cillo, V., Rialti, R., Del Giudice, M. and Usai, A., 2021. Niche tourism destinations' online reputation management and competitiveness in big data era: Evidence from three Italian cases. *Current Issues in Tourism*, 24(2), pp.177-191.
- Dahiya, R., Le, S., Ring, J.K. and Watson, K., 2021. Big data analytics and competitive advantage: the strategic role of firm-specific knowledge. *Journal of Strategy and Management*.
- Danish, R.Q., Asghar, J., Ahmad, Z. and Ali, H.F., 2019. Factors affecting “entrepreneurial culture”: the mediating role of creativity. *Journal of Innovation and Entrepreneurship*, 8(1), pp.1-12.
- Dennehy, D., Oredo, J., Spanaki, K., Despoudi, S. and Fitzgibbon, M., 2021. Supply chain resilience in mindful humanitarian aid organizations: the role of big data analytics. *International Journal of Operations & Production Management*, 41(9), pp.1417-1441.
- Dewi, R.S., Alhabsji, T., Arifin, Z. and Abdillah, Y., 2020. Adaptive capability: Capability to create innovation and competitive advantages of SME's in the industry 4.0 era. *International Journal of Innovation, Creativity and Change*, 11(2).
- Eshima, Y. and Anderson, B.S., 2017. Firm growth, adaptive capability, and entrepreneurial orientation. *Strategic management journal*, 38(3), pp.770-779.
- Field, M. and Golubitsky, M., 2009. *Symmetry in chaos: a search for pattern in mathematics, art, and nature*. Society for Industrial and Applied Mathematics.
- Fornell, C. and Larcker, D.F., 1981. Structural equation models with unobservable variables and measurement error: Algebra and statistics.
- Fuchs, L., 2011. *Partially ordered algebraic systems* (Vol. 28). Courier Corporation.
- Ghasemaghahi, M., 2019. Are firms ready to use big data analytics to create value? The role of structural and psychological readiness. *Enterprise Information Systems*, 13(5), pp.650-674.
- Ghasemaghahi, M., 2019. Does data analytics use improve firm decision making quality? The role of knowledge sharing and data analytics competency. *Decision Support Systems*, 120, pp.14-24.
- Glaveanu, V.P., Hanchett Hanson, M., Baer, J., Barbot, B., Clapp, E.P., Corazza, G.E., Hennessey, B., Kaufman, J.C., Lebuda, I., Lubart, T. and Montuori, A., 2020. Advancing creativity theory and research: A socio-cultural manifesto. *The Journal of Creative Behavior*, 54(3), pp.741-745.

- Hair, J.F., Risher, J.J., Sarstedt, M. and Ringle, C.M., 2019. When to use and how to report the results of PLS-SEM. *European business review*, 31(1), pp.2-24.
- Hao, S., Zhang, H. and Song, M., 2019. Big data, big data analytics capability, and sustainable innovation performance. *Sustainability*, 11(24), p.7145.
- Henseler, J., 2018. Partial least squares path modeling: Quo vadis?. *Quality & Quantity*, 52(1), pp.1-8.
- Henseler, J., Ringle, C.M. and Sarstedt, M., 2015. A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the academy of marketing science*, 43(1), pp.115-135.
- Ismail, H.N., Iqbal, A. and Nasr, L., 2019. Employee engagement and job performance in Lebanon: the mediating role of creativity. *International Journal of Productivity and Performance Management*, 68(3), pp.506-523.
- Johnson, J.S., Friend, S.B. and Lee, H.S., 2017. Big data facilitation, utilization, and monetization: Exploring the 3Vs in a new product development process. *Journal of Product Innovation Management*, 34(5), pp.640-658.
- Kabil, A.M., 2021. Integrating big data technology into organizational decision support systems. In *Research Anthology on Decision Support Systems and Decision Management in Healthcare, Business, and Engineering* (pp. 639-657). IGI Global.
- Kamble, Sachin S., Angappa Gunasekaran, and Shradha A. Gawankar. "Achieving sustainable performance in a data-driven agriculture supply chain: A review for research and applications." *International Journal of Production Economics* 219 (2020): 179-194.
- Kelly, N., Kelliher, F., Power, J. and Lynch, P., 2020. Unlocking the niche potential of senior tourism through micro-firm owner-manager adaptive capability development. *Tourism Management*, 79, p.104081.
- Kibe, L.W., Kwanya, T. and Owano, A., 2020. Relationship between big data analytics and organisational performance of the Technical University of Kenya and Strathmore University in Kenya. *Global Knowledge, Memory and Communication*, 69(6/7), pp.537-556.
- Lai, Y., Sun, H. and Ren, J., 2018. Understanding the determinants of big data analytics (BDA) adoption in logistics and supply chain management: An empirical investigation. *The International Journal of Logistics Management*.
- Lee, H.W., Teoh, M.F. and Ahmad, N.H., 2021. The Impact of Strategic Alignment between Resources to Enhance Malaysia's Biomass Industry Performance: A Resource-Based View (RBV) Approach. *Estudios de economía aplicada*, 39(10), p.43.
- Majhi, S.G., Mukherjee, A. and Anand, A., 2021. Business value of cognitive analytics technology: a dynamic capabilities perspective. *VINE Journal of Information and Knowledge Management Systems*.
- Makhloufi, L., Azbiya Yaacob, N., Laghouag, A.A., Ali Sahli, A. and Belaid, F., 2021. Effect of IT capability and intangible IT resources on sustainable competitive advantage: Exploring moderating and mediating effect of IT flexibility and core competency. *Cogent Business & Management*, 8(1), p.1935665.

- Makhloufi, L., Laghouag, A.A., Ali Sahli, A. and Belaid, F., 2021. Impact of entrepreneurial orientation on innovation capability: The mediating role of absorptive capability and organizational learning capabilities. *Sustainability*, 13(10), p.5399.
- Mangla, S.K., Raut, R., Narwane, V.S. and Zhang, Z.J., 2020. Mediating effect of big data analytics on project performance of small and medium enterprises. *Journal of Enterprise Information Management*.
- Mikalef, P., Boura, M., Lekakos, G. and Krogstie, J., 2019. Big data analytics capabilities and innovation: the mediating role of dynamic capabilities and moderating effect of the environment. *British Journal of Management*, 30(2), pp.272-298.
- Mikalef, P., Krogstie, J., Pappas, I.O. and Pavlou, P., 2020. Exploring the relationship between big data analytics capability and competitive performance: The mediating roles of dynamic and operational capabilities. *Information & Management*, 57(2), p.103169.
- Muin, A., Hanifah, S.H. and Diwidian, F., 2018. The effect of creative problem solving on students' mathematical adaptive reasoning. In *Journal of Physics: Conference Series* (Vol. 948, No. 1, p. 012001). IOP Publishing.
- Nerubasska, A. and Maksymchuk, B., 2020. The Demarkation of Creativity, Talent and Genius in Humans: a Systemic Aspect. *Postmodern Openings/Deschideri Postmoderne*, 11(2).
- Niebel, T., Rasel, F. and Viète, S., 2019. BIG data–BIG gains? Understanding the link between big data analytics and innovation. *Economics of Innovation and New Technology*, 28(3), pp.296-316.
- Nitzl, C., Roldan, J.L. and Cepeda, G., 2016. Mediation analysis in partial least squares path modeling: Helping researchers discuss more sophisticated models. *Industrial management & data systems*.
- Oppenheim, A.N., 2000. *Questionnaire design, interviewing and attitude measurement*. Bloomsbury Publishing.
- Podsakoff, P.M., MacKenzie, S.B., Lee, J.Y. and Podsakoff, N.P., 2003. Common method biases in behavioral research: a critical review of the literature and recommended remedies. *Journal of applied psychology*, 88(5), p.879.
- Qaffas, A.A., Ilmudeen, A., Almazmomi, N.K. and Alharbi, I.M., 2022. The impact of big data analytics talent capability on business intelligence infrastructure to achieve firm performance. *foresight*, (ahead-of-print).
- Ramadan, M., Shuqqo, H., Qtaishat, L., Asmar, H. and Salah, B., 2020. Sustainable competitive advantage driven by big data analytics and innovation. *Applied Sciences*, 10(19), p.6784.
- Ringle, C., Da Silva, D. and Bido, D., 2015. Structural equation modeling with the SmartPLS. *Bido, D., da Silva, D., & Ringle, C.(2014). Structural Equation Modeling with the Smartpls. Brazilian Journal Of Marketing*, 13(2).
- Runco, M.A. and Beghetto, R.A., 2019. Primary and secondary creativity. *Current Opinion in Behavioral Sciences*, 27, pp.7-10.
- Santoro, G., Fiano, F., Bertoldi, B. and Ciampi, F., 2018. Big data for business management in the retail industry. *Management Decision*.

- Schutte, N.S. and Malouff, J.M., 2020. Connections between curiosity, flow and creativity. *Personality and Individual Differences*, 152, p.109555.
- Snyder, H.T., Hammond, J.A., Grohman, M.G. and Katz-Buonincontro, J., 2019. Creativity measurement in undergraduate students from 1984–2013: A systematic review. *Psychology of Aesthetics, Creativity, and the Arts*, 13(2), p.133.
- Soetanto, D., 2017. Networks and entrepreneurial learning: coping with difficulties. *International Journal of Entrepreneurial Behavior & Research*.
- Voorhees, C.M., Brady, M.K., Calantone, R. and Ramirez, E., 2016. Discriminant validity testing in marketing: an analysis, causes for concern, and proposed remedies. *Journal of the academy of marketing science*, 44(1), pp.119-134.
- Walia, C., 2019. A dynamic definition of creativity. *Creativity Research Journal*, 31(3), pp.237-247.
- Wang, Y., Kung, L. and Byrd, T.A., 2018. Big data analytics: Understanding its capabilities and potential benefits for healthcare organizations. *Technological forecasting and social change*, 126, pp.3-13.



APPENDIX

SURVEY QUESTIONNAIRE

Dear Sir/ Madam,

My name is, a postgraduate student at the Kwame Nkrumah University of Science and Technology, Kumasi, Department of Supply Chain and Information Systems. This survey instrument has been designed to enable me carry out research on the topic: **“Investigate The Impact of Ambidextrous Leadership on Organizational Learning in Multi-National Firms in Ghana”**. Any information provided will be used for academic purposes ONLY. There are no risks associated with your participation, and your responses will remain confidential and anonymous.

SECTION A: RESPONDENT’S BIOGRAPHY AND COMPANY PROFILE

When completing this questionnaire, please tick [] in the applicable box or provide an answer as applicable.

Please answer the following questions:

1. *Gender:* Male Female

2. *Age*

18-30 years 31-40 year’s 41-50 years Above 50 years

3. *Level of Education*

Junior High School Senior High School Diploma Bachelor Degree

Graduate Studies (Master / Ph.D.) Others For Others, Please

specify:.....

4. *Your Position in the Firm*

Operations managers Supply Chain Warehouse Manager HR Manager

Production Manager Others

.....

5. *How many years have your firm been in operation?*

1 - 5 years 6 - 10 years 11 – 15 years 16 years and above

SECTION B: Ambidextrous Leadership

Indicate the extent to which you agree or disagree with each statement by checking the appropriate number from 1 to 5, using the following scale:

| <i>1 = Strongly Disagree</i> | | <i>2 = Disagree</i> | | | | | | | | | |
|---|--|---------------------------|---|------------------|---|---|--|--|--|--|--|
| <i>5 = Strongly Agree</i> | | <i>3 = Somewhat Agree</i> | | <i>4 = Agree</i> | | | | | | | |
| Item | Statement | 1 | 2 | 3 | 4 | 5 | | | | | |
| Explorative ambidextrous leadership | | | | | | | | | | | |
| EPLA1 | My supervisor checks to be sure that I follow proper procedures. | | | | | | | | | | |
| EPLA2 | My supervisor insists that I strictly follow work standards for task accomplishment. | | | | | | | | | | |
| EPLA3 | My supervisor clearly explains the way work should be done. | | | | | | | | | | |
| EPLA4 | My supervisor often tells me how to accomplish a job without giving reasons. | | | | | | | | | | |
| EPLA5 | My supervisor supervises me to prioritize my work and requires me to strictly follow the priority set. | | | | | | | | | | |
| Exploitative ambidextrous leadership | | | | | | | | | | | |
| EPRAL1 | My supervisor helps me understand how my objectives and goals relate to that of the company. | | | | | | | | | | |
| EPRAL2 | My supervisor makes many decisions together with me. | | | | | | | | | | |
| EPRAL3 | My supervisor believes that I can handle demanding tasks. | | | | | | | | | | |
| EPRAL4 | My supervisor allows me to do my job my way. | | | | | | | | | | |

SECTION D: ORGANIZATIONAL LEARNING (Panayides and Lun, 2009)

Indicate the extent to which you agree or disagree with each statement by checking the appropriate number from 1 to 5 using the following scale:

| <i>1 = Strongly Disagree</i> | | <i>2 = Disagree</i> | | | | | | | | | |
|------------------------------|---|---------------------------|---|------------------|---|---|--|--|--|--|--|
| <i>5 = Strongly Agree</i> | | <i>3 = Somewhat Agree</i> | | <i>4 = Agree</i> | | | | | | | |
| Item | Statement | 1 | 2 | 3 | 4 | 5 | | | | | |
| OL1: | the organization should encourage reflexion, revision and change to achieve continuous improvement; | | | | | | | | | | |
| OL2: | new ideas from employees should be viewed favourably, regardless of the employee; | | | | | | | | | | |
| OL3: | all members of an organization, not only managers, should make suggestions and solve problems; | | | | | | | | | | |
| OL4: | the members of a firm should view their tasks as a learning process; | | | | | | | | | | |
| OL5: | the firm has a career plan to stimulate continuous learning; | | | | | | | | | | |

| | | | | | | | | | |
|------|---|--|--|--|--|--|--|--|--|
| OL6: | employees receive general training to help them perform their business-asusual tasks | | | | | | | | |
| OL7: | a continuous improvement system is in place that allows for improvement in processes that have met the established quality standards. | | | | | | | | |

Thank you for participating in the survey.

