

KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY

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**THE INFLUENCE OF LOGISTICS OUTSOURCING ON SUPPLY CHAIN
PERFORMANCE: ASSESSING MODERATING ROLE OF COMPETITIVE
STRATEGY.**

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(BSC. BUSINESS ADMINISTRATION)**

**A THESIS SUBMITTED TO THE DEPARTMENT OF SUPPLY CHAIN AND
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MASTER OF SCIENCE (LOGISTICS AND SUPPLY CHAIN MANAGEMENT)**

MAY 2023

DECLARATION

I hereby declare that this thesis is the result of my original work towards the MSc. in Logistics and Supply Chain Management, and that to the best of my knowledge, it neither contains material published by another person nor materials which have been accepted for the award of any other person nor materials which have been accepted for the award of any other degree of the University, except where due acknowledgements have been made in the text.

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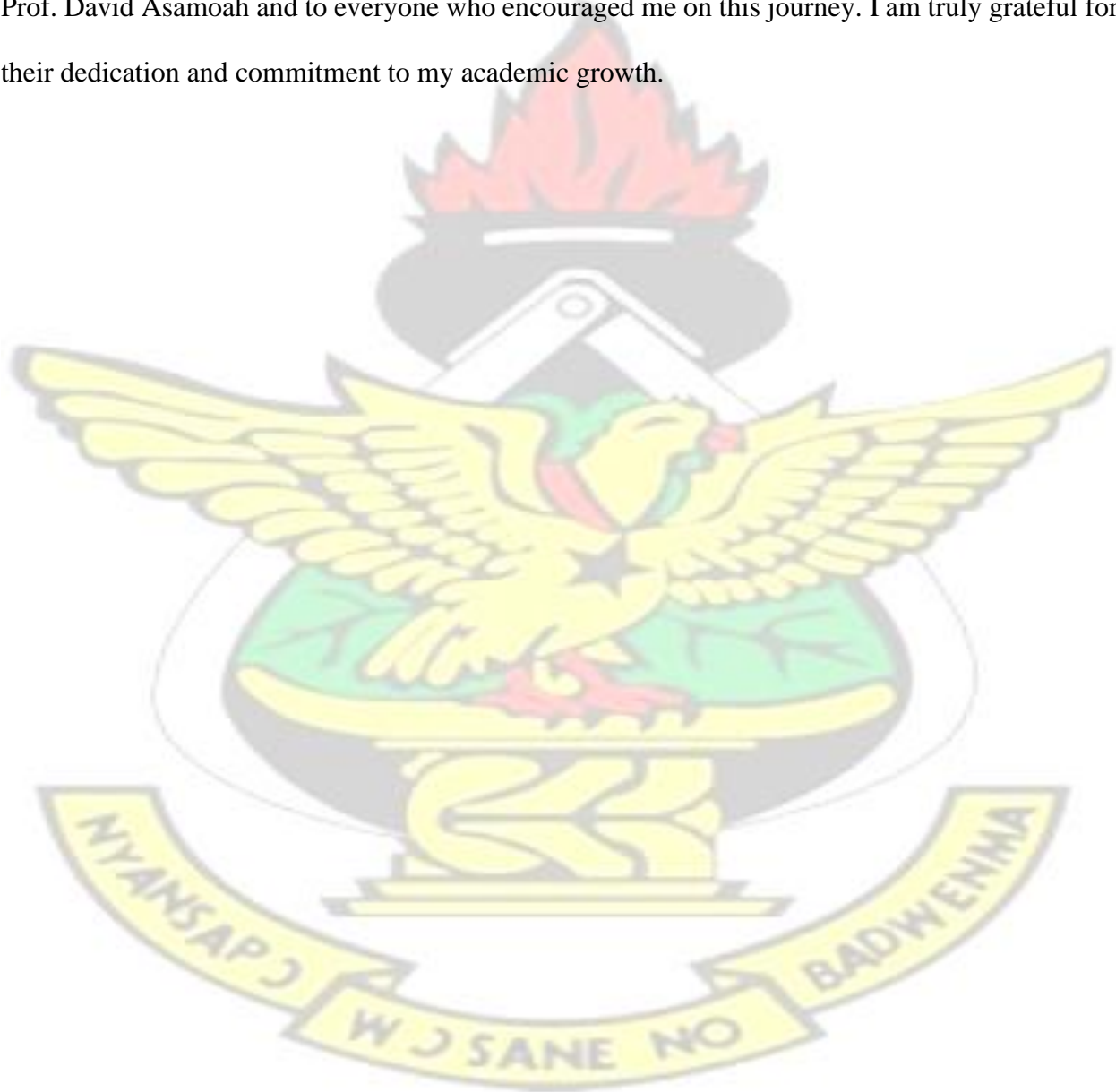
DEDICATION

I would like to dedicate this work to my loving parents Mr. and Mrs. Adombire, who has always been my source of strength and encouragement.



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I would like to acknowledge the invaluable guidance and mentorship provided by my supervisor Prof. David Asamoah and to everyone who encouraged me on this journey. I am truly grateful for their dedication and commitment to my academic growth.



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ABSTRACT

Evidence from prior studies have argued that logistics outsourcing has become very eminent in contemporary business environment due to its strategic importance including; cost reduction in some of the production inputs, technological adoption and usage, risk management and improved quality of services and products. In this light, the main objective of the study was to examine the influence of logistic outsourcing services on supply chain performance, with the moderating role of competitive strategy. The study employed quantitative research approach, structured questionnaires and random sampling technique to select 125 manufacturing companies. The analysis was done with the aid of Statistical Package for Social Sciences (SPSS). The study found that, cost reduction was a significant determinant of supply chain performance; technology adoption was a significant determinant of supply chain performance; risk management was a significant determinant of supply chain performance; and competitive strategy was a significant determinant of supply chain performance. However, quality improvement was not a significant determinant of supply chain performance. Again, the study showed competitive strategy partially moderate the relationship between logistics outsourcing and supply chain performance. The study concludes that, logistics outsourcing and competitive strategy are predictors of supply chain performance. The study recommends that managers of logistics and supply chain activities of

manufacturing companies in Ghana should embrace cost reduction and quality improvement practices as well as technology adoption and risk management since they have proven to be effective and efficient mechanisms to improve supply chain performance. Further, policy makers, stakeholders in the manufacturing industry of Ghana should strategize and devise more robust guidelines that seek to support and promote logistics outsourcing practices in the manufacturing industry.

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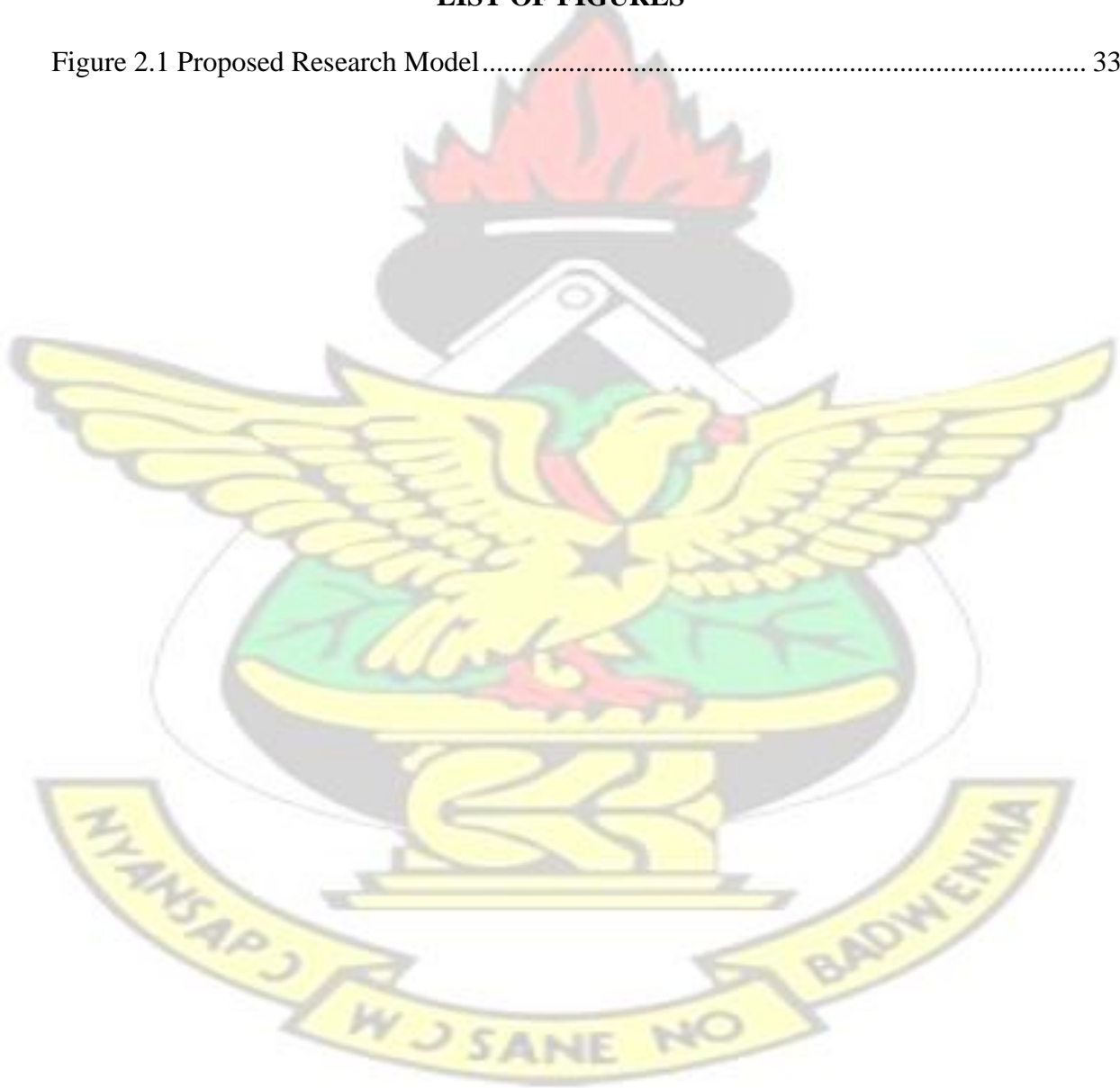
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LIST OF ABBREVIATIONS

4PLs	Fourth-Party Logistics
ANOVA	Analysis of Variance
INEs	International Start-ups
LO	Logistics Outsourcing
LORQ	Logistics Outsourcing Relationship Quality
NT	Network Theory
OE	Organisational Efficiency
PBL	Performance Based Logistics
RBV	Resource Based View
SMEs	Small and Medium Enterprises
SPSS	Statistical Package for Social Science



CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Today, logistics outsourcing is becoming popular and is being explored to some extent by all companies, large or small, on a corporate basis, internationally or locally (Fadile et al., 2018), and even non-corporately. Logistics outsourcing (LO) refers to the partial or complete replacement of logistics functions by external logistics service providers (König & Spinler 2016; Bore and Mwaura, 2020). According to König and Spinler (2016), the term "logistics outsourcing" (LO) refers to the practice of engaging an external firm or logistical service provider with prior expertise in outsourcing to partially or fully replace a company's logistics responsibilities. In practical use, it is uncommon for corporations to fully delegate all of their business operations and procedures to other entities. Hence, organizations exhibit a preference for directing their attention towards their primary areas of expertise while delegating peripheral tasks to outsourcing firms, whether domestic or foreign in nature (Awe et al., 2018; Tripathi, 2020).

Logistics include several interconnected activities, such as transportation, storage, inventory management, packaging, and processing. Transport management encompasses several aspects such as the selection and use of different modes of transportation, the development and maintenance of transport infrastructure, the consideration of geographical factors, the determination of appropriate delivery methods, the formulation of transport plans, and the establishment of efficient routing and scheduling systems. According to Lacity et al. (2011), outsourcing may be defined as the process by which an organization transfers a portion of its operations to a designated service provider for a certain duration. According to Narayanan et al.

(2011), outsourcing may be defined as a strategic managerial choice to delegate non-core functions to an external service provider. According to Willcocks (2011), non-core operations including packing, shipping, delivery, warehousing, and distribution. By engaging in the practice of outsourcing non-core tasks, firms are able to optimize the allocation of their resources and direct their attention towards the fundamental activities of the organization (König & Spinler, 2016; Tripathi, 2020).

Laughen et al. (2005) assert that logistics outsourcing encompasses the transportation of goods and components from suppliers to assembly factories and retail establishments. Logistics outsourcing include many activities such as data transmission, shipping, storage, handling, and inventory management (Brune and Useem, 2008). logistical outsourcing pertains to the delegation of some or all logistical activities to an external entity. Logistics functions include the activities of distribution and handling. logistical outsourcing refers to the practice of transferring some or all of an organization's logistical activities to a third-party logistics service provider. This situation exemplifies the customary practices undertaken by logistics service providers on behalf of their clientele (Vallespir and Kleinhans, 2001).

Lambert et al. (1999) claim that the practice of outsourcing logistics is linked to both cost reductions and potential dangers. According to Persson and Olhager (2001), the practice of outsourcing logistics has the potential to yield cost-effective outcomes. This is primarily due to several factors, including the avoidance of infrastructure investment, the ability to access the most up-to-date processes, products, services, and technologies, the capacity to swiftly adapt to changes in the business environment, the sharing of risk, the enhancement of cash flow, the reduction of

operating costs, the optimization of fixed and variable costs, and the utilization of resources that are not internally accessible. The concept of supply chain performance pertains to the many actions carried out by the extended supply chain in order to fulfill the demands of end-users. This encompasses aspects such as the availability and timely delivery of products, as well as the inventory management and supply chain capabilities necessary to achieve this level of performance (Bigliardi & Bottani, 2014).

The performance of a supply chain refers to the manner in which a firm attains its market and internal goals, such as operational efficiency (Tzokas et al., 2015; Asamoah et al., 2020). Hussain et al. (2018) have shown that the achievement of organizational efficiency (OE) is contingent upon the degree to which productivity may be enhanced via cost reduction and profit gain. In recent years, there has been a significant focus on the role of organizational entrepreneurship (OE) as organizations strive to enhance their performance via the creation of innovative alternatives. According to Al-Weshah et al. (2019), the contemporary approach to achieving success as a corporation involves cultivating the capacity to efficiently produce a diverse range of items.

Competitive strategy may be defined as the intentional selection of a series of acts that serve as the foundation for gaining a competitive advantage, with the ultimate goal of establishing a distinctive value proposition (Olson and Slater, 2015; Kovaleva and de Vries, 2016). A long-term, non-reactive strategic plan is implemented by organizations to effectively establish a competitive edge over their competitors. According to Porter (2004), competitive strategy entails the purposeful selection of distinct courses of action in order to separate oneself from rivals and attain a distinctive amalgamation of value. According to Nyaga (2015), there exist three distinct

competitive strategies. The first strategy involves aspiring to become a low-cost generic producer, commonly referred to as a low-cost strategy. The second strategy entails differentiating competitors' offerings, known as a differentiation strategy. Lastly, the third strategy involves targeting a specific and limited market segment, referred to as a concentration or niche strategy.

In their study, Afum et al. (2021) investigated the relationship between outsourcing logistics and achieving a high level of financial success, as well as the roles played by the mediating factors of customer performance, time-based competitiveness, and cost-based competitiveness. According to the findings of the research, contracting out logistics activities has a significant and beneficial effect on a variety of competitiveness indicators, including as customer satisfaction, financial performance, cost-based competitiveness, and timing-based competitiveness. According to the findings of the study, a company's financial success is considerably influenced in a good direction by both its time-based and cost-based competitiveness. However, it does not seem that the performance of the customers had a statistically significant influence on the performance of the finances. The findings of the research that investigated the role of mediation suggest that time-based competitiveness and cost-based competitiveness may both play a role in mediating the connection between financial success and logistics outsourcing. However, there was no evidence to suggest that customer performance had a role in mediating the relationship between the outsourcing of logistics and a company's financial success.

In addition, the study that was carried out by Mageo et al. (2018) investigated the link that exists between the success of small and medium-sized manufacturing companies (SMEs) in Nairobi and the delegation of their logistical responsibilities to third parties. The statistical investigation found that there was no clear connection between the success of small and medium-sized manufacturing enterprises (also known as SMEs) and the outsourcing of logistics. According to the findings of the research, small and medium-sized manufacturing companies (also known as SMEs) saw a positive and statistically significant indirect effect from logistics outsourcing on their performance. This influence was mediated by the variable known as logistics outsourcing performance. This article takes a deep dive into the motivations for and processes involved in the practice of outsourcing logistical work. It also recommends a framework for logistics outsourcing that is specifically developed for small and medium-sized manufacturing enterprises (SMEs), with the goal of improving the performance of their respective organizations via the use of this framework. It is predicted that managers of small and medium-sized businesses (SMEs) would get guidance on how to properly manage logistics outsourcing from the present relationship and inferred logistics outsourcing model. This will allow the SME managers to enhance their company's performance.

1.2 Problem Statement

Logistics include several interconnected activities such as transportation, storage, inventory management, packaging, and processing. Transport management encompasses several elements such as the different modes of transportation, the infrastructure that supports transportation activities, the geographical positioning of transportation networks, the methods of delivery, as well as the processes of planning, routing, and scheduling. According to Bore and Mwaura (2020), the

motivation to investigate the issue was driven by the significant attention garnered in the field of outsourcing logistics services. The writers also asserted that logistics outsourcing has gained significant prominence in the present-day corporate environment owing to its strategic significance. The authors highlight many key factors that contribute to the significance of this issue, including the potential for cost reduction in various manufacturing inputs, the adoption and use of technology, effective risk management, and the quality of services and goods. The primary objective of this study was to analyze the impact of logistic outsourcing services on the performance of supply chains inside commercial state businesses.

Bore and Mwaura (2020) conducted a research whereby they created a model to examine the correlation between logistic outsourcing services and the performance of supply chains. The current research contends that in order for a firm to optimize its supply chain performance via outsourcing procedures, it is important to possess a dependable competitive strategy that may enhance the aforementioned connection. This research has included the concept of competitive strategy as a moderator, drawing upon the theoretical framework of the resource-based perspective theory. logistical outsourcing refers to the practice of engaging external entities to assume responsibility for some or all logistical operations that were previously conducted internally (Tripathi, 2020).

Furthermore, the present investigation has shown that prior research has yielded varying and inconclusive findings. An example of a study conducted by Kalinzi (2015) focused on investigating the effects of outsourcing, specifically in the logistics domain, on the overall performance of organizations. The findings of the research suggest that the decision-making

process regarding freight forwarding outsourcing does not significantly impact the efficiency of the supply chain. However, it is observed that both the planning and administration of outsourcing have a positive effect on supply chain efficiency, with the administration of outsourcing being the most influential independent variable. The findings of the research indicate that after the implementation of outsourcing for the freight forwarding function, the organization is incurring higher costs compared to its previous expenditure for the same service. Additionally, the quality of service received after outsourcing is seen to be worse to what was previously obtained when the freight forwarding function was conducted internally.

The aforementioned research conducted by Esima and Wordu (2017) investigated the effects of logistics outsourcing on the performance of organizations. The research conducted revealed a notable correlation between the practice of Logistics outsourcing and the overall performance of the chosen oil and gas firms in Rivers State. The supply of financial savings resulting from a decrease in labour and operational costs, together with the internal efficiency gained from a reduction in internal workload, may lead to enhanced service delivery through the use of specialized services. Additionally, this can facilitate knowledge transfer, boost core competence, and eventually contribute to higher organizational performance. In the light of the above, the present study focuses on the influence of logistics outsourcing on supply chain performance: assessing moderating role of competitive strategy with a focus manufacturing companies in the Kumasi metropolis of Ghana.

1.3 Main Objective

The main objective of the study is to examine the influence of logistics outsourcing on supply chain performance: assessing moderating role of competitive strategy with a focus manufacturing companies in the Kumasi metropolis of Ghana. Specifically, the study will focus on the following:

1. To examine the relationship between logistics outsourcing and supply chain performance
2. To examine the relationship between competitive strategy and supply chain performance
3. To examine the moderating role of competitive strategy on the relationship between logistics outsourcing and supply chain performance

1.4 Research Questions

1. What is the relationship between logistics outsourcing and supply chain performance?
2. What is the relationship between competitive strategy and supply chain performance?
3. What is the moderating role of competitive strategy on the relationship between logistics outsourcing and supply chain performance?

1.5 Significance of the Study

The study offers most current and insightful information to the major stakeholders including the investors, academicians, policy makers and advocates. The study is expected to reveal the moderating role of competitive strategy on the relationship between logistics outsourcing and supply chain performance. This would be used as bases for decision making with respect to how a firm could drive competitive advantage through logistics outsourcing.

Theoretically, the present study argues that for an organization to maximize its supply chain performance through outsourcing practices, there is the need to have a reliable competitive strategy which can strengthen such as relationship. Based on resource-based view theory, this study has introduced competitive strategy as a moderator. Logistics outsourcing entails the use of external organisations to take over some or all of the logistics functions previously performed in-house

The results of this research may also be utilized by academics and industry experts in the manufacturing sector, which may drive innovation in the manufacturing sector and lead to the creation of new employment opportunities. The findings of this research will be made available to academics and students who are interested in doing future research in this area and will serve as a source of data for them.

1.6 Scope of the Study

Contextually, the study was conducted to examine the influence of logistics outsourcing on supply chain performance and assessing moderating role of competitive strategy with a focus on manufacturing companies. Geographically, the study would be conducted in the Kumasi metropolis of Ghana. The study will target food manufacturing and processing companies, aluminum fabrications amongst others. Cross sectional survey was the main time horizon considered in the present study.

1.7 Brief Methodology

This study would employ quantitative research approach to investigate the influence of logistics outsourcing on supply chain performance: assessing moderating role of competitive strategy with

a focus manufacturing companies in the Kumasi metropolis of Ghana. The population comprise logisticians, inventory managers, transport officers, distributors, accountants and finance officers. Random sampling technique would be used in sampling 120 respondents from the selected manufacturing companies. The sources of data would be primary, using a structured questionnaire as the research instrument. SPSS version 23 is used to perform the mean, standard deviation, and multiple regression analyses. Reliability and validity analyses would be conducted including ethical considerations.

1.8 Limitations of the Study

Like any other study, this study could not have been done without some limitations. The sample size and scope of the study would be the most challenging issues among others. First and foremost, it would have been more appropriate if the study extended to cover the entire private sector, it would be easier for generalization but owing time constraint only manufacturing sector would be covered. The study would be limited by the fear of victimization which would affect the quality of information.

1.9 Organization of the Study

This study was broken up into five separate chapters. In the first chapter, presents the introduction to the research, both the problem at hand and the objectives of the study were described. The second chapter included a summary of the essential concepts and literature pertaining to the performance of supply chains, competitive strategies, and the outsourcing of logistics. The research approach was discussed in further detail in the third chapter of the report. Chapter 4 consisted of data analysis, presentations, and arguments on the topic. In chapter 5, we discussed

an overall summary of the key findings from the field survey, the findings and conclusions of the research, and possible future actions.

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CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter presents review of related works on logistics outsourcing, competitive strategy and supply chain performance. Specifically, the following issues have been discussed, the conceptual

review, the theoretical review, the empirical review and the conceptual framework as well as the hypothesis development.

2.1 Conceptual Review

2.1.1 Logistics Outsourcing

The concept of logistics outsourcing refers to the practice of engaging external entities to assume responsibility for some or all logistical operations that were previously managed internally (Tripathi, 2020). In contemporary business practices, there is a growing trend towards the adoption of logistics outsourcing. This phenomenon is being seen across organizations of varying sizes, including both multinational corporations and local enterprises (Fadile et al., 2018; Agyei-Owusu et al., 2018). Furthermore, the exploration of logistics outsourcing extends beyond corporate entities, encompassing non-corporate entities as well. logistical outsourcing entails the delegation of logistical responsibilities, either in part or in their whole, to external logistics service providers (König & Spinler, 2016). According to the definition provided by König and Spinler (2016), logistics outsourcing (LO) refers to the process whereby a company's logistical duties are either partially or entirely transferred to an external entity or logistics service provider with prior expertise in outsourcing. In practical use, it is uncommon for corporations to fully delegate all of their business operations and procedures to other entities. Hence, organizations exhibit a preference for directing their attention towards their primary areas of expertise and entrusting peripheral tasks to either domestic or foreign outsourcing firms (Awe et al., 2018).

Moeen et al. (2013) posit that the act of outsourcing transport logistics entails the contractual engagement of a service provider by a corporation for the provision of transportation services.

Logistics include several interconnected activities such as transportation, storage, inventory management, packaging, and processing. Transport management encompasses several elements such as modes of transportation, transport infrastructure, geographical positioning, delivery methods, transport planning, as well as routing and scheduling. According to Lacity et al. (2011), outsourcing may be defined as the process through which an organization transfers a portion of its operations to a third-party service provider for a designated duration. According to Narayanan et al. (2011), outsourcing may be defined as a strategic choice made by management to delegate non-core functions to an external service provider. Willcocks (2011) further specifies that non-core operations including packaging, shipping, delivery, warehousing, and distribution. The effective allocation of resources and the concentration on core tasks within an organization may be achieved via the practice of outsourcing non-core activities (Agyei-Owusu et al., 2018).

Laughen et al. (2005) assert that logistics outsourcing encompasses the transportation of goods and components from suppliers to assembly facilities and retail establishments. Logistics outsourcing include many activities such as data transmission, shipping, storage, handling, and inventory management (Brune and Useem, 2008). logistical outsourcing entails the delegation of some or all logistical responsibilities to a third-party entity. Logistics functions include the activities of distribution and handling. logistical outsourcing refers to the practice of transferring some or all of an organization's logistical activities to a third-party logistics service provider. This situation exemplifies the customary practices undertaken by logistics service providers on behalf of their clientele (Vallespir and Kleinhans, 2001). Lambert et al. (1999) claim that the practice of outsourcing logistics is linked to both cost reductions and potential dangers. According to Persson and Olhager (2001), the practice of outsourcing logistics has the potential to yield cost-effective

outcomes. This is primarily due to several advantages, such as the avoidance of infrastructure investment, the ability to access the most up-to-date processes, products, services, and technologies, the capacity to respond promptly to changes in the business environment, the sharing of risk, the improvement of cash flow, the reduction of operating costs, the balancing of fixed and variable costs, and the utilization of resources that are not internally available.

Logistics, as a component of supply chain management, encompasses the efficient and effective coordination and movement of information, goods, and services (Stevenson & Spring, 2009). According to Kiraga (2014), logistics may be defined as the strategic planning, execution, and control of efficient supply chain management procedures. Logistics refers to the strategic coordination and control of the movement and storage of commodities, from their initial source to their final destination, in order to effectively satisfy the unique requirements of consumers, companies, and other relevant entities. Logistics encompasses the management of a diverse array of resources, including tangible entities such as food, materials, animals, equipment, and liquids, as well as intangible entities such as time, information, particles, and energy. The field of physical logistics encompasses several aspects such as the interchange of information, management of resources, manufacturing processes, packaging methods, storage practices, transportation systems, warehousing operations, and often includes security measures (Lee, 2014). The logistics department has the responsibility for the transportation of all materials both inside and outside the organizational boundaries. In order to maintain a seamless flow of commodities, it is essential for the organization to make appropriate judgments across several interconnected domains. These factors include several aspects such as the careful selection of dependable suppliers, skillful negotiation of delivery terms, use of appropriate transportation methods, efficient management of

inventories, and other related considerations. According to the study conducted by Qureshi et al. in 2007, According to Panayides et al. (2007), logistics plays a significant role in optimizing the movement of products and information, resulting in cost reduction, enhanced efficiency, and improved security both inside and outside the corporate network. According to Panayides et al. (2007), logistics plays a crucial role as a functional system in enhancing the efficiency of both products and information movement. Its primary objective is to accomplish cost-effective, expedient, and secure delivery of items inside and beyond the confines of the corporate network. According to Panayides et al. (2007), the use of logistics may enhance the effectiveness of both the transportation of products and the dissemination of information, thereby facilitating the expeditious and secure delivery of commodities throughout the corporate network. According to Panayides et al. (year), the field of logistics plays a crucial role in enhancing a company's competitive edge by improving its efficiency and productivity. The efficiency and competitiveness of a company's supply chain are reliant upon the foundational role of logistics operations and procedures. The interdependence of logistics and customer service and its influence on a company's competitive position necessitates the strategic management of the logistics function and the maximization of its potential as a means of gaining a competitive edge.

Outsourcing, as previously defined by Kroes and Ghosh (2010), refers to the transfer of an established business and its assets to a third party. Similarly, Bustinza et al. (2010) define outsourcing as a situation where an organization retains accountability for service delivery, while delegating the actual execution of the work to an external entity based on agreed terms, costs, and conditions. The present research provides a definition of outsourcing as "the deliberate utilization of external resources for tasks that have conventionally been handled by internal personnel and

resources" (Bhattacharya et al., 2013). Outsourcing refers to the practice in which a corporation delegates some non-core activities to service providers that possess more expertise, efficiency, and effectiveness (Irina et al., 2012). The aforementioned approach is a management method used by firms to effectively allocate their resources and concentrate on their primary operations by outsourcing them to service providers that provide enhanced efficiency. Due to the phenomenon of globalization, several enterprises have opted to delegate some tasks to specialized service providers in order to enhance their competitive edge. The insufficiency of human resources may compel organizations to resort to outsourcing when they have difficulties in obtaining the requisite skills and knowledge necessary to attain the desired level of proficiency anticipated from service providers (Kremic et al., 2006). Outsourcing refers to the transfer of a corporation's non-core functions, such as product development in the context of a manufacturing company, to an external organization. The action in question entails the participation of two primary entities: (i) the contracting business, responsible for outsourcing the logistical services, and (ii) the subcontractor, tasked with executing the outsourced tasks. Subcontracting is often characterized as a strategic approach aimed at optimizing labour use.

2.1.2 Evaluation of Supply Chain Performance

The concept of supply chain performance pertains to the actions carried out by the extended supply chain in fulfilling the demands of end-users. This encompasses aspects such as the availability and delivery of products, as well as the inventory and supply chain capabilities necessary to achieve this level of performance (Bigliardi and Bottani, 2014; Asamoah et al., 2016). The effectiveness of a supply chain is a critical factor in determining how well a firm meets its market and internal goals, such as operational efficiency (Tzokas et al., 2015). The authors of Hussain et al. (2018)

argue that the level of organizational efficiency (OE) may be influenced by the degree to which productivity is enhanced via cost reduction and profit gain. Moreover, there has been a significant focus on the role of organizational entrepreneurship (OE) in contemporary times, as businesses strive to foster avenues for innovation in order to enhance their overall effectiveness. According to Al-Weshah et al. (2019), the contemporary approach to achieving success as a corporation involves cultivating the capacity to efficiently produce diverse items.

Supply chain performance refers to the capacity of a supply chain to effectively cater to the demands of end consumers, including factors such as product availability, delivery time, total inventory, and overall supply network performance (Hausman et al., 2004). Productivity refers to the measure of the speed at which things are accomplished. The aforementioned statement elucidates the extent to which the work requirements are fulfilled, and this is assessed via the use of performance indicators (Rubin, 2002). The idea of productivity is subject to varying interpretations among individuals. Luck (2006) provides two definitions of productivity: the capacity to do tasks effectively and the ability to get desirable outcomes. Hence, it is important to examine productivity within the framework of anticipated outcomes, obligations, and objectives. According to Sinnandavar et al. (2018), the concept of environmental performance may be defined as the capacity of an organization to effectively mitigate waste consumption, air emissions, solid waste, and hazardous chemicals. According to Alexopoulos et al. (2018), the inclusion of environmental performance indicators, such as regulatory compliance, environmental management systems, and performance indicators, may enhance supply chain efficiency by improving environmental management practices, transportation processes, and cost reduction measures. Supply chain performance refers to the systematic evaluation of the effectiveness and

efficiency of a supply chain (Lima-Junior and Carpinetti 2019). According to the authors, the measurement of supply chain performance may be conducted via the use of the indicators outlined below.

2.1.3 Competitive Strategies

Porter (1980) posited, as cited by Khan et al., that competitive strategy pertains to the cultivation of distinctive attributes unique to a business, hence distinguishing the value and products it generates from those of its rivals. The guiding philosophy of the company plays a crucial role in determining its competitive advantage in the marketplace (Munyiri, 2014). Munyiri (2014) posits that the concept of competitive strategy encompasses the deliberate activities undertaken by a corporation with the objective of attaining a sustained competitive advantage within a certain industry (Olson and Slater, 2015). Competitive strategy may be defined as the intentional selection of a series of acts that serve as the foundation for gaining a competitive advantage, with the aim of establishing a distinct value proposition (Kovaleva and de Vries, 2016). A long-term, non-reactive strategic initiative that empowers a company to achieve a competitive edge over its competitors.

According to Porter (2004), competitive strategy entails the purposeful selection of distinct courses of action in order to separate oneself from rivals and attain a distinctive amalgamation of value. According to Nyaga (2015), there exist three distinct competitive strategies. The first strategy involves aspiring to become a low-cost generic producer, commonly referred to as the low-cost strategy. The second strategy entails differentiating competitors' offerings, known as the

differentiation strategy. Lastly, the third strategy involves aiming to secure a narrow market share, also known as the concentration or niche strategy.

2.2 Theoretical Review

2.2.1 Resource Based View

The theory of the Resource Based View (RBV) is a prominent framework in the field of strategic management. The theory of the "resource-based view" as proposed by Wernerfelt (1984) is widely recognized as a significant contribution to the field of strategic management. This theory holds particular relevance in contemporary management practice. According to proponents of the resource-based view, it is more advantageous to leverage existing resources in order to generate new opportunities, as opposed to pursuing new knowledge for each distinct opportunity. Utilizing them to capitalize on external chances is more advantageous. The Resource-Based View (RBV) concept posits that resources are of utmost importance in facilitating organizations' attainment of enhanced organizational performance. According to Lavie (2008), the Resource-Based View (RBV) paradigm posits that businesses exhibit heterogeneity due to their possession of diverse resources, whereas strategies demonstrate heterogeneity as a result of varying resource combinations. The significance of company-specific resources is emphasized in resource theory. This technique involves identifying the resources that are accessible to the business and establishing an indirect connection between these resources and the organization's capabilities. The consideration of profitability and cost aspects that are relevant to the organization is taken into account (Colbert, 2004). According to the aforementioned paradigm, it is more advantageous to use pre-existing resources in order to generate novel possibilities, as opposed to pursuing fresh

knowledge for each distinct chance. Utilizing them for the purpose of capitalizing on external chances is more advantageous.

2.2.2 Networks Theory

The performance of a company is contingent upon both the efficacy of its interactions with immediate business partners and the efficacy of its interactions with business partners with whom it maintains a business connection. The establishment of ongoing interactions between a company and external entities is a crucial determinant in the generation of novel resources (Herbert et al., 2007). Relationships between organizations facilitate the pooling of resources, resulting in a collective output that surpasses what might be achieved by individual endeavours. The amalgamation in question may be seen as a quasi-organization, as posited by Håkansson and Ford (2002). The field of network theory (NT) plays a significant role in enhancing our comprehension of the dynamics within interorganizational relationships. It places particular emphasis on the significance of "personal chemistry" among participants, the establishment of trust through consistent positive cooperation, and the reciprocal adaptation of procedures and systems through exchange processes (Herbert et al., 2007). The idea of networks is inherently descriptive and has mostly been used in the context of logistics and supply chain performance mapping efforts.

2.3 Empirical Review

2.3.1 Logistics Outsourcing and Supply Chain Performance

In their study, Afum et al. (2021) investigated the relationship between outsourcing logistics and achieving a high level of financial success, as well as the roles played by the mediating factors of customer performance, time-based competitiveness, and cost-based competitiveness. According

to the findings of the research, contracting out logistics activities has a significant and beneficial effect on a variety of competitiveness indicators, including as customer satisfaction, financial performance, cost-based competitiveness, and timing-based competitiveness. According to the findings of the study, a company's financial success is considerably influenced in a good direction by both its time-based and cost-based competitiveness. However, it does not seem that the performance of the customers had a statistically significant influence on the performance of the finances. The findings of the research that investigated the role of mediation suggest that time-based competitiveness and cost-based competitiveness may both play a role in mediating the connection between financial success and logistics outsourcing. However, there was no evidence to suggest that customer performance had a role in mediating the relationship between the outsourcing of logistics and a company's financial success.

In addition, the study that was carried out by Mageto et al. (2018) investigated the link that exists between the success of small and medium-sized manufacturing companies (SMEs) in Nairobi and the delegation of their logistical responsibilities to third parties. The statistical investigation found that there was no clear connection between the success of small and medium-sized manufacturing enterprises (also known as SMEs) and the outsourcing of logistics. According to the findings of the research, small and medium-sized manufacturing companies (also known as SMEs) saw a positive and statistically significant indirect effect from logistics outsourcing on their performance. This influence was mediated by the variable known as logistics outsourcing performance. This article takes a deep dive into the motivations for and processes involved in the practice of outsourcing logistical work. It also recommends a framework for logistics outsourcing that is specifically developed for small and medium-sized manufacturing enterprises (SMEs), with the goal of improving the performance of their respective organizations via the use of this framework.

It is predicted that managers of small and medium-sized businesses (SMEs) would get guidance on how to properly manage logistics outsourcing from the present relationship and inferred logistics outsourcing model. This will allow the SME managers to enhance their company's performance.

The study conducted by Kalinzi (2015) investigated the effects of outsourcing, specifically in the logistics domain, on the overall performance of organizations. The findings of the research suggest that the decision-making process regarding freight forwarding outsourcing does not have a significant impact on the efficiency of the supply chain. However, both the planning and administration aspects of outsourcing demonstrate a positive influence on supply chain efficiency, with outsourcing administration being the primary independent variable. The findings of the research indicate that after the implementation of outsourcing for the freight forwarding function, there has been an increase in expenditure compared to previous costs for the same service. Furthermore, the quality of service received is now worse than what was seen when the freight forwarding function was managed internally. Based on the research results, it is evident that the freight forwarding service provider has encountered challenges in effectively addressing intervening factors such as non-tariff barriers, leading to additional expenses and delays. The research findings also indicate that the practice of outsourcing freight forwarding services has faced significant administrative and technological obstacles, resulting in notable disruptions to supply chain effectiveness. As a result, the company is considering the possibility of reverting the function back in-house, in order to address and minimize these associated risks.

The study conducted by Esima and Wordu (2017) investigated the effects of logistics outsourcing on the performance of organizations. The research conducted revealed a noteworthy correlation between the practice of Logistics outsourcing and the overall performance of the oil and gas enterprises specifically chosen within the region of Rivers State. The study revealed that logistics outsourcing in the oil and gas industry has various effects, such as generating financial savings by reducing labour and operational costs, enhancing internal efficiency by reducing internal workload, improving service delivery through specialized services, facilitating knowledge transfer, strengthening core competencies, and ultimately leading to increased organizational performance.

In a study conducted by Githinji (2012), the author examined the impact of logistics outsourcing techniques on the performance of supply chains. While the survey identified home transport as the prevailing mode of transportation, it was apparent that the outsourcing of logistics enhances the performance of the supply chain. All of the institutions included in the study engaged in the practice of outsourcing some logistical operations, although to various extents. The study's findings indicate that organizations are increasingly using logistics outsourcing as a strategic approach to achieve cost reduction, focus on core business functions, mitigate risks, and get a competitive edge. The benefits of outsourcing logistics are well acknowledged, and its impact on the supply chain is significant. The survey also identified several challenges encountered by universities during the process of outsourcing their business activities. These challenges encompassed the relinquishment of control over said activities, lack of cooperation from students, occurrences of industrial unrest, associated switching costs, potential loss of information to competitors, and resistance to change exhibited by stakeholders. The study conducted by Hsiao et

al. (2010) aimed to investigate the potential variations in logistics service performance that may arise from outsourcing various logistical tasks. The results indicate that there is no clear correlation between outsourcing and service performance, namely in terms of delivery dependability, flexibility, and lead-time, across all four levels. Nevertheless, the effectiveness of outsourcing level 4 operations exhibits an upward trend in correlation with the growing intricacy of demand. Moreover, it may be argued that chilled meals exhibit superior service performance as compared to non-chilled items.

The study conducted by Bore and Mwaura (2020) examined the impact of outsourcing logistics on supply chain performance. The research conducted revealed that public trading enterprises operating within the Nadi area have implemented the practice of transport outsourcing, which in turn has significant implications for the functioning of their supply chains. The findings of the correlation analysis indicate a statistically significant positive association between transport outsourcing and supply chain performance. Consequently, it can be inferred that transport outsourcing has a discernible effect on the supply chain performance of publicly traded companies in the Nadu region. Moreover, the hypotheses have validated the same outcome, indicating a statistically significant correlation between the outsourcing of transportation and the efficiency of the supply chain. The research findings indicate that the internal outsourcing performance of public trading enterprises in the Nadu area is mostly influenced by the effect of distribution outsourcing on supply chain efficiency. The findings from the correlation and regression analyses indicate a favourable association between the outsourcing of marketing activities and the efficiency of supply chain management in publicly traded firms operating in the Nad area. The findings of the study suggest a statistically significant correlation between the practice of outsourcing marketing

activities and the level of efficiency in the supply chain. The research conducted revealed that the practice of inventory outsourcing among publicly traded enterprises in the Nadi province has a significant impact on the efficiency of the supply chain. The results of correlation and regression analysis indicate a significant positive association between the practice of inventory outsourcing and the level of supply chain efficiency. The aforementioned assertion was substantiated using a hypothesis test, which revealed a statistically significant correlation between the practice of inventory outsourcing and the level of efficiency within the supply chain.

In a study conducted by Githinji (2012), the researcher examined the effects of logistics outsourcing techniques inside universities on the effectiveness of their supply chains. The research revealed that the practice of outsourcing logistics operations contributes to enhancing the efficiency of supply chains, with courier services emerging as the predominant choice in this regard. All of the institutions included in the research had chosen to outsource some aspects of their logistical operations. The research discovered that the practice of logistics outsourcing is advocated as a strategic approach to decrease expenses, uphold essential operations, mitigate risk, and attain a competitive edge. The advantages of outsourcing logistics services are unquestionable, and their influence on the supply chain is substantial. The author further highlighted the difficulties that universities have when opting to outsource their operations. These obstacles include a diminished level of management, less student engagement, the unpredictability of the market, the expenses associated with transitioning, the risk of losing ground to rivals, and the opposition to change from stakeholders.

Within the context of Uganda, a developing nation, Kalubanga and Namagembe (2021) investigate the connection between logistics performance and strategic fit, relationship satisfaction, trust, and

commitment, as well as the quality of the logistics outsourcing relationship (LORQ). According to the findings, trust has an indirect effect on logistical performance by virtue of the fact that it has an impact on commitment, LORQ, and relationship satisfaction. The positive influence that relationship satisfaction has on logistical performance was validated by the fact that LORQ performance increased. The phenomenon of strategic alignment has been seen to have a significant and beneficial effect on LORQ's performance as a whole, which has been observed.

In their study, Mills and Opoku-Akyea (2019) conducted an assessment to examine the effects of outsourcing transport logistics on the performance of organizations. The study's results indicate that the rationales behind outsourcing encompass several factors. These include enhancing the alignment of organizational activities, preserving a world-class capability, reallocating organizational resources for alternative purposes, mitigating and sharing risks, optimizing the availability of the organization's financial resources, minimizing operating costs, and exerting control over operations. During the conference, many perspectives were articulated. The challenges linked to the outsourcing of transport logistics included several issues, including the loss of control over operations, customer dissatisfaction, potential breaches in the confidentiality of sensitive information, workforce downsizing, and the considerable expenses incurred throughout the transition process. The research findings indicate that a decrease in transportation costs leads to enhanced profitability for some alcohol producers in Ghana. The objective may be accomplished via the use of outsourced transportation services.

2.3.2 Competitive Strategy and Supply Chain Performance

The objective of the research conducted by Consolata et al (2018) was to examine the impact of competitive tactics on company performance. Based on the findings, differentiation tactics include the provision of high-quality items, effective brand reputation management, and the offering of unique products. Furthermore, the implementation of cost management methods played a crucial role in determining the performance of major manufacturing facilities as a competitive element. The implementation of targeted techniques had a substantial influence on the operational outcomes of expansive industrial facilities situated in Kenya. The results of the regression analysis indicate a statistically significant relationship between competitive tactics and the performance of big manufacturing units. The study conducted by Sagwa and Kembu (2016) examined the impact of competitive tactics on the performance of motor vehicle repair businesses located in Nairobi County, Kenya. The data collection in this research included the administration of a questionnaire to each member of the team. The findings of the research provide empirical evidence that lends credence to the concept that the implementation of a competitive strategy has favourable outcomes for organizational performance.

In their study, Buul and Omundi (2017) employed descriptive statistics to assess the influence of competitive strategies on the performance of small and medium-sized enterprises (SMEs) in Kenya. Additionally, they utilized Pearson correlation, analysis of variance (ANOVA), and multiple regression analysis to ascertain the associations between the variables under investigation and to provide a comprehensive description of the collected data. The study revealed that cost management, differentiation, market orientation, and strategic partnerships have a favourable and

statistically significant influence on the performance of small and medium-sized enterprises (SMEs).

The study conducted by Shifuna (2014) examined the impact of competitive tactics on the performance of public universities in Kenya. The findings indicate that economies of scale have a substantial influence on the performance of universities. Furthermore, various elements of cost management, including the utilization of resources, reduction of time and transaction costs, enhancement of cost efficiency and control, as well as the implementation of mass production and distribution strategies, exert a substantial influence on the performance of universities. Similarly, the differentiation of products and services, achieved through advertising and promotional campaigns, as well as the differentiation of human resources, also play a significant role in determining performance outcomes. In a study conducted by Njogu (2015), the researcher examined the influence of competitive strategy on the performance of organizations. The study used a descriptive research methodology, whereby a sample of 150 individuals employed at Nokia's headquarters in Kenya were interviewed. The research revealed that the competitive strategy used by the Nokia organization in Kenya had a significant impact on its success.

In their study, Hossain et al. (2019) examined several competing tactics and their impact on organizational performance, with a specific focus on the food industry in Bangladesh. Based on the comprehensive analysis conducted, it can be inferred that the implementation of competitive strategies has yielded enhancements in organizational performance within the food sector. Furthermore, the investigation has shown that cost management methods have emerged as cost-

effective approaches enabling companies to augment their market share and expedite their attainment of market dominance.

Crespan et al. (2020) want to underscore the significance of strategy as a fundamental element in enhancing the international performance of international start-ups (INEs). They also highlight the situational nature of the relationship between strategy and performance, specifically emphasizing the relevance of two organizational components. The findings indicate that the use of marketing, quality, and service differentiation strategies is positively linked to the strong worldwide performance of small and medium-sized enterprises (SMEs). Additionally, it is seen that the timing and preparedness for international expansion have a mitigating influence on these associations.

In their research, Ruto (2018) conducted a case analysis of a non-life insurance firm located in Eldoret, Kenya. The objective of the study was to investigate the influence of Porter's conventional competitive tactics on the performance of the organization. The research conducted revealed that the implementation of Porter's competitive strategy has a favourable influence on the operational outcomes of a non-life insurance firm situated in Eldoret, Kenya. The results of this study have significance for those involved in the insurance sector, including policy makers, practitioners, and researchers, who are responsible for formulating effective competitive tactics.

2.3.3 Competitive Strategy as a Moderator

In their study, Afum and Agyabeng (2021) investigate the mediating role of customer performance in the relationship between time-based competition and cost-based competition. The findings indicate that the practice of outsourcing logistics operations has a notable and favourable influence

on several aspects, including time competitiveness, cost competitiveness, customer efficiency, and financial performance. The variables of time competitiveness and cost competitiveness have a noteworthy positive influence on financial performance, however customer performance does not demonstrate a statistically significant effect on financial success. The study that was conducted in 2020 by Aziz and colleagues investigated the effects of logistical capacity and outsourcing on the operational performance of Pakistani manufacturing businesses. According to the findings of the research, there is a strong correlation between the levels of productivity performance and logistical proficiency in Pakistani manufacturing companies. The study also demonstrates a favourable association between the performance of logistics outsourcing and the use of logistics outsourcing. Despite this, it was shown that Pakistani manufacturing enterprises are statistically unaffected by the outsourcing of logistics. The study conducted by Makaria (2017) examined the correlation between the outsourcing of logistics and the success of oil and gas projects in Kenya. The findings of the study indicate a statistically significant positive correlation coefficient between oil and gas projects and the use of transport outsourcing. Kilic et al. (2016) conducted a research that examined the effects of logistics outsourcing on competitiveness and company performance via the use of semi-structured informant interviews. In general, the findings indicate that organizations place significance on service level agreements (SLAs) and that these agreements contribute to the acquisition and maintenance of a competitive edge, hence enhancing overall performance.

The study conducted by Wabwile and Namusonge (2015) investigates the many aspects that impact the adoption of outsourcing as a competitive strategy across manufacturing organizations in Kenya. The practice of outsourcing allows organizations to enhance the quality and efficiency of their services, increase their responsiveness to consumer demands, and maintain a greater level

of concentration. In their study, Aflabo et al. (2018) investigate the influence of outsourcing on competitive advantage, specifically focusing on the function of innovation facilitation. The findings indicate that there exists a negative relationship between the perceived transaction costs associated with outsourcing and the attainment of competitive advantage. A significant correlation was observed between competitiveness and relationship orientation, indicating a link with competitive advantage.

According to Nzitunga (2019), a limited amount of study has been conducted on the effects of outsourcing on organizational performance within the context of Namibian mines, despite the extensive examination of this issue by several scholars. According to the findings, the use of logistics outsourcing strategies in Namibian mines has been shown to have a favourable influence on the overall performance of the organizations. In their research, Budler et al. (2021) examined the present condition of logistics outsourcing within the manufacturing sector of Slovenia. This research uses secondary data to examine the attributes of logistics outsourcing in certain nations. Transportation is widely recognized as the primary logistics activity, but, there is a prevailing inclination towards the outsourcing of logistics services, such as fourth-party logistics providers (4PLs).

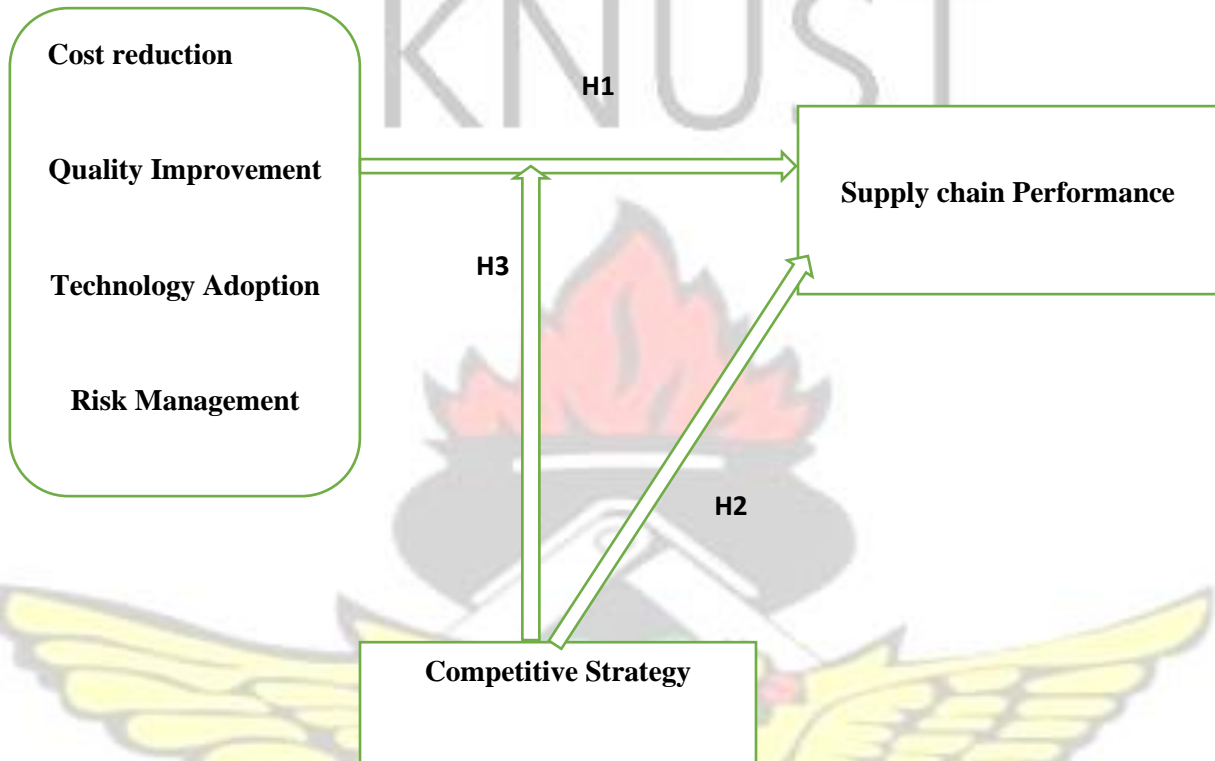
In their research, Simon et al. (2020) conducted an analysis of the prevailing management methods used by Brazilian enterprises in the outsourcing of logistics services pertaining to the mechanical harvesting, processing, and transportation of sugarcane. This analysis specifically focused on the utilization of Performance Based Logistics (PBL) contracts. The findings indicated that there is potential for improvement by juxtaposing the assessment outcomes with the suggestions provided

by problem-based learning (PBL). The contract axis shown a deficiency in the decision-making process due to the lack of consideration given to the strategic reason behind the choice to outsource. The performance of procurement, contracts, and execution is considered to be moderate. Performance management is considered to be a highly sophisticated and progressive program. Nevertheless, the quality study indicates that it is of medium calibre. The primary distinction seen along the axis of proportionality pertains to the divergence of expectations. In several domains, the level of compliance is deemed to be moderate. However, it is important to prioritize the systematic enhancement of communication and relationship management.

2.4 Conceptual Framework

The study of Bore and Mwaura (2020) which has been adopted developed a model to study the relationship between logistic outsourcing services and supply chain performance. The present study however argues that for an organization to maximise its supply chain performance through outsourcing practices, there is the need to have a reliable competitive strategy which can strengthen such as relationship. Based on resource-based view theory, this study has introduced competitive strategy as a moderator.

Logistics outsourcing Practices



Source: Author's Construct (2022)

Figure 2.1 Proposed Research Model

2.4.1 Relationship between Logistics Outsourcing and Supply Chain Performance

The first proposition of the study is that logistic outsourcing has effect on supply chain performance. Drawing upon the principles of network theory, it can be deduced that logistics outsourcing encompasses not just the transportation of tangible products, but also the exchange of information and knowledge. The network theory offers a framework for assessing and quantifying the interconnections between logistics outsourcing entities. This enables the evaluation of the effectiveness and efficiency with which information and insights are transmitted throughout the

various structures involved. The idea of resource-based approach, in contrast, provides insights into how organizations may effectively use their resources to enhance supply chain performance. The practice of logistics outsourcing involves the engagement of external entities to assume responsibility for some or all logistical operations that were previously conducted internally (Tripathi, 2020). In contemporary business practices, there is a growing trend towards the use of logistics outsourcing. This phenomenon has garnered attention and interest from firms of varying sizes, including both multinational corporations and local enterprises (Fadile et al., 2018). Moreover, the scope of logistics outsourcing extends beyond corporate entities, encompassing non-corporate entities as well. logistical outsourcing entails the delegation of logistical responsibilities, either in part or in their whole, to external logistics service providers (König & Spinler, 2016; Fadile et al., 2018). According to König and Spinler (2016), the term "logistics outsourcing" (LO) refers to the process in which a company's logistics duties are either partially or entirely transferred to an external entity, such as a logistics service provider, that has prior expertise in outsourcing logistics operations. In practical use, it is uncommon for corporations to fully delegate all of their business operations and procedures to other entities. Hence, it is the preference of enterprises to concentrate on their fundamental areas of expertise and delegate peripheral tasks to outsourcing organizations, whether local or international in nature (Awe et al., 2018). In the light of the presentation herein the present study hypothesizes as follow;

H1: Logistics Outsourcing has significant and positive relationship with Supply Chain Performance

2.4.2 Relationship between Competitive Strategy and Supply Chain Performance

The second proposition of the study is that competitive Strategy has significant and positive relationship with Supply Chain Performance. Inferring from the resource based view theory and

the network theory which has to do with effective utilization and effective interactions with business partners, any organisation that wants to stand out in the market should create a strategy by communicating with the suppliers, customers and the market in general and utilize its resources well as well as create new opportunities for both the suppliers and customers to gain new knowledge to promote their supply chain performance. According to Porter (1980), as noted by Khan et al. (2011) competitive strategy refers to the development of firm-specific characteristics that differentiate the value and offerings a firm creates from those of its competitors. It is the guiding principle of the firm that determines how the firm can be most competitive in the marketplace (Munyiri, 2014). Supply chain performance refers to the activities of the extended supply chain in meeting end-user demand, including product availability and delivery, as well as any inventory and supply chain capabilities required to meet this performance (Bigliardi and Bottani, 2014). Supply chain performance is an aspect of how a company achieves its market and internal objectives (e.g. operational efficiency) (Tzokas et al., 2015). The extent to which productivity can be increased through cost reduction and profit increase is known to be a key factor in achieving organisational efficiency (OE) (Hussain et al., 2018). Furthermore, the role of OE has received much attention in recent years as organisations seek to create opportunities for innovation to improve their performance. The new paradigm for becoming a successful company is to adapt the ability to develop different products with minimum efficiency (Al-Weshah et al., 2019). In the light of the presentation herein the present study hypothesizes as follow;

H2: Competitive Strategy has significant and positive relationship with Supply Chain Performance

2.4.3 Competitive Strategy as Moderator

The final proposition of the study is that competitive Strategy has significant and positive relationship moderating effect on the relationship between outsourcing logistics and Supply Chain Performance. Inferring from the resource based view theory and the network theory which has to do with effective utilization and effective interactions with business partners, any organisation that wants to stand out in the market should create a strategy by communicating with the suppliers, customers and the market in general and utilize its resources well as well as create new opportunities for both the suppliers and customers to gain new knowledge to promote their supply chain performance. When there is effective interaction with the suppliers and the customers the organisation gets to understand the customers' needs and thereby outsource the appropriate goods. Competitive strategy can be understood as the actions taken by a firm to achieve a sustainable competitive strategy in an industry (Olson and Slater, 2015). Competitive strategy is understood as the deliberate choice of a set of actions that form the basis of competitive advantage in order to create a unique value proposition (Kovaleva and de Vries, 2016). It is a long-term, non-reactive action plan that enables a firm to gain competitive advantage over its rivals. Porter (2004) argues that competitive strategy is an attempt to differentiate oneself from competitors, that is, to deliberately choose different courses of action to achieve a unique combination of value. The three types of competitive strategies are: first, seeking to become a low-cost generic producer, or low-cost strategy; second, differentiating competitors' offerings, or differentiation strategy; and third, seeking to capture a narrow market share, or concentration or niche strategy (Nyaga, 2015). In the light of the presentation herein the present study hypothesizes as follow;

H3: Competitive Strategy has significant and positive effect on the relationship between Logistic outsourcing and Supply Chain Performance

CHAPTER THREE

METHODOLOGY

3.0 Introduction

This chapter presents the research methods, strategies, techniques, and organizational profile. Specifically, this chapter describes the research design, the research purpose, the research approach, the population of the study, sample size and sampling techniques, measurement instrument, data collection method, data analysis, the validity and reliability and the ethical consideration.

3.1 Research Design

Saunders et al. (2007) defined research design as the set of procedures that researchers use to obtain objective, accurate, appropriate, and timely responses to questions (Shukla, 2010). It also describes flexible guidelines that link theoretical paradigms with research strategies and methods for collecting empirical data. There are various approaches to research design in the social sciences. The most common forms are case studies, surveys, experiments, ethnography, grounded theory, and archival research. The survey method will be used in this study. The data collected will be cross-sectional, meaning that the author will collect the data at one point in time. Also, Saunders et al. (2012) define a survey as a research method that involves interviewing a sample or observing and describing the respondents' behaviour in some way. The survey method will be chosen for this study because the researcher wants to use a structured questionnaire to explore the relationship between logistics outsourcing on supply chain performance, with the moderating role of competitive strategy. The focus is on logistics outsourcing practices, competitive strategy and supply chain performance in the manufacturing companies. The study will focus exclusively on

manufacturing firms in the Kumasi Metropolis of Ghana. The research team will consist of only the researcher and his supervisor. The data set will be designed by the researcher, edited by the researcher, and then the supervisor will approve.

3.2 Research Purpose

The study can be classified as exploratory, descriptive or explanatory depending on the research design (Shukla, 2010). Saunders et al. (2012), define exploratory research as the valuable tool which is used to find out “what is going on”, gain new knowledge, formulate questions, and view phenomena in a new light. According to Kothar (2004), descriptive research design is used to address the in-depth research questions and to provide a detail description of an object of the study. Saunders et al. (2012), argue that, explanatory research which is also known as the causal research is used to determine the extent and nature of cause and effect relationships. Again, Saunders et al. (2012) stated that, causal research is used in conducting studies that assess the impact of a specific changes in existing policies, various processes etc. They focus on analysing the impact of different processes on the environment. They focus on the analysis of a specific problem. They focus on analysing a particular situation or problem to identify patterns of relationships between variables. Hence, this study can be conducted as an explanatory because it seeks to measure the relationship between the variables of logistics outsourcing, competitive strategy and supply chain performance in the manufacturing firms in the Kumasi Metropolis.

3.3 Research Approach

Research approach refers to the overall purpose of research in the social sciences. The approach chosen may be quantitative, qualitative, or a combination of both. Quantitative research is an

approach to research that seeks to test theories, identify facts, show relationships among variables, and predict outcomes. Quantitative research is based on testing theory, measuring it in numbers, and analysing it using statistical methods that emphasize objectivity and repeatability. Quantitative research, therefore, focuses on the quantity, quality or people involved. Qualitative research is research that accomplishes the objectives of a company by using methods that allow the researcher to interpret market phenomena in detail without relying on numerical indicators (Kothar, 2004). Creswell (2009) defines qualitative research as research conducted in a natural setting that provides a complex and comprehensive picture of the phenomenon under study. This occurs when the research problem requires exploring concepts and making undeveloped connections and organizing those concepts and connections into an explanatory theoretical framework. A purely quantitative approach will be used in this study. For this study, numerical measures of logistics outsourcing, competitive strategy and supply chain performance will be developed.

3.4 Population of the study

According to Taylor et al. (2015), a population is defined as a comprehensive group of people (entities or events) who share characteristics of interest with the researcher. The population of interest is the target population that the researcher wants to study or investigate (Bryman and Bell, 2007). According to Cooper and Schindler (2014), the population of interest in a study is best described as the target population, which consists of any person, event, or document that contains the desired information the researcher needs to achieve the objectives of the study. The population of this study consists of manufacturing firms operating in the Kumasi metropolis of Ghana. Since most of the industrial firms are located in this region, the data collected can be considered reliable.

3.5 Sample Size and Sampling Techniques

Sampling, according to Chandaran (2004), is a system in which several individuals are selected so that the selected individuals are representative of the larger group from which the sample is drawn. In this study, a sample of 130 individuals will be used based on Pallant's (2007) assertion that a sample of 100 individuals is sufficient for a homogeneous study. Industrial companies will be selected for the study and each respondent will be randomly selected using a random sampling technique. The industrial firms were further grouped (dust collector manufacturers, wood processing plants, aluminum foundries, light industry, food and beverage industry, and metal processing). Participants will be randomly selected from each stratum. Stratified random sampling will be used as the sampling method because it ensures sufficient representativeness of the respondents.

3.6 Measurement Instrument

The measuring instrument was developed after consulting related literature. The scale used in the research was continuously improved through discussions and brainstorming. The pilot study also helped to refine the items in the questionnaire. A 7-point Likert scale was used to indicate the degree to which respondents agree or disagree with each statement, where 1 = strongly disagree, 2 = slightly disagree, 3 = disagree, 4 = indifferent, 5 = slightly agree, 6=agree, 7=strongly agree. The detailed information on the constructs used in the study and the sub-constructs used are presented in the table below with their sources.

Table 3.1 Measurement Construct

CONSTRUCT	SUB-CONSTRUCT	NO. OF ITEMS	SOURCE
Logistics outsourcing	Cost reduction	6	Jean (2018)
	Quality improvement	6	
	Technology adoption	6	
	Risk management	6	
Competitive strategy	Cost Leadership	3	Morgan et al. 2004; Mohsenzadeh and Ahmadian, 2016
	Marketing differentiation	3	
	Service differentiation	3	
Supply chain performance	-	6	Bore and Mwaura, (2020)

Source: Author's Study 2022

3.7 Data collection Method

The use of structured questionnaires was the major method that was used in the study project to collect data. According to DeVaus (2002), a questionnaire is nothing more than the formulation of a set of specific questions to which the respondents are obligated to provide responses. According to Saunders et al. (2009), research questionnaires may be split into two categories: self-administered questionnaires and interviewer-administered questionnaires. This study purposely collected data using the self-administered approach in the selected manufacturing companies. The researcher will administer the questionnaires together with the respondents, this will be done to ensure that the respondents will not leave anything behind. The questions were mostly contained close-ended questions. This was done to ensure that respondents readily chose from a given set of alternatives. The measurement instruments were originally chosen from authors such as (Morgan et al., 2004; Mohsenzadeh and Ahmadian, 2016; Jean, 2018; Bore and Mwaura, 2020). The measurement instrument was developed after a review of the pertinent literature was conducted. The scales used in the study were continuously refined through discussions and brainstorming. The pilot study was also helpful in refining the items in the questionnaire. The data collection method is a systematic process used by a researcher to collect primary or secondary data for

research (Mofolo-Mbokane, 2011). The study used primary sources of data to examine the relation between logistics outsourcing practices on supply chain performance, with the moderating role of competitive strategy in manufacturing firms in Kumasi metropolis of Ghana. Yin (2003) defines primary data as information that is observed or collected directly from first-hand experience. Primary data can be collected by observation, interviews, and questionnaires. In this study, questionnaires were used to collect primary data. All research questions were addressed using primary data obtained by going to the field with structured questionnaires.

3.8 Data Analysis

Data analysis is the process of finding meaning in data information from a given source. According to Donald et al. (2006), data analysis is the process in which researchers review and organize their research to better understand the data and present what they have learned to others. Data will be cleaned and combined to ensure consistency and accuracy. SPSS version 23 will be used for all statistical analyses. Cronbach alpha will be used to assess the reliability of the measurement scales. Descriptive, correlation and regression analyses will also be conducted for specific purposes. Moderating effects will be analyzed after the transformation of the relevant variables. A total of three models will be proposed. The first two will be simple linear regression models, while the last model will be used to estimate moderation effects.

3.9 Validity and Reliability

The Cronbach alpha test will be used in order to ensure the reliability and validity of the research that is being conducted. Validity and dependability of the data are very important factors to consider while doing the study analysis. With the assistance of these tests, which are of the highest

significance, the researcher will have the ability to correctly test the study hypothesis and provide answers to the research questions. According to Creswell (2002), the two aspects of validity and reliability testing that make up validity and reliability testing are internal validity and external validity. Internal validity examines the reasons why the research came to the conclusions that it did, in contrast to external validity, which evaluates how applicable the study's results are in other contexts. Preliminary testing of the questionnaire was done to ensure that the questions are understandable and that the respondents can provide appropriate responses to them.

3.10 Ethical Consideration

Ethical considerations are an important part of this research. The researcher ensured that all information provided by respondents was protected and stored under conditions appropriate for the study. Special care was also taken to protect the privacy of the respondents by keeping the survey results anonymous (Corti, Day, & Backhouse, 2000). The researcher ensured that the respondents' participation in the study was voluntary and not random. The respondents had the right not to answer questions that could hurt their feelings. Again, the researcher made sure that third parties did not have access to the answers to the questions so that the rights and identity of the respondents were not compromised.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND DISCUSSIONS

4.0 Introduction

This chapter presents the analyses and the discussion of the results on the study which intended to assess the moderating role of competitive strategy on the relationship between logistics outsourcing on supply chain performance. Specifically, this chapter addressed the objectives of the study which is to examine the relationship between logistics outsourcing and supply chain performance, the relationship between competitive strategy and supply chain performance and the moderating role of competitive strategy on the relationship between logistics outsourcing and supply chain performance. The chapter has been categorized under demographic characteristics, descriptive statistics, reliability test, correlation matrix and multiple regression. The analyses were performed with the aid of the statistical software known as the statistical package for social sciences (SPSS).

4.1 Demographic Information

Table 4.1: Demographic Characteristics

Demographics	Frequency	Percentage
Age		
20 - 29 years	34	27.2
30 - 39 years	42	33.6
40 - 49 years	34	27.2
50 years and above	15	12.0
Gender		
Male	104	83.2
Female	21	16.8
Educational Level		
Bachelor degree	82	65.6
Master's degree	43	34.4
Firm's Industry		
Service	17	13.6
Mining/Extraction	16	12.8
Agribusiness	48	38.4
Manufacturing	34	27.2
Other	10	8.0
Years firm has been in business		
0-5 years	4	3.2
6-10 years	25	20.0
11-15 years	38	30.4
16 years and above	58	46.4
Years of working with the firm		
0-5 years	33	26.4
6-10 years	30	24.0
11-15 years	36	28.8
16 years and above	26	20.8
Managerial level		
Supervisor	46	36.8
Middle manager	50	40.0
Top manager	29	23.2

Source: Field Data, 2022

Table 4.1 presents results on the demographic characteristics of the respondents. The study showed that majority of the respondents (33.6%) were aged between 30-39 years; 27.2% were aged between 40-49 years; 27.2% were aged between 20-29 years; whereas the remaining 12% were 50 years or above. Almost all of the respondents (83.2%) were males whereas 16.8% of them were

females. Also, more than half of the respondents (65.6%) were bachelor degree holders whereas 34.4% were master's degree holders. 38.4% of the respondents worked with the agribusiness industry; 27.2% worked with the manufacturing industry; 13.6% worked with the service industry; 12.8% worked with the mining/extraction industry; whereas 8% of them worked with other industry. Further, slightly below half (46.4%) of the respondents indicated that their firm has been in business for 16 years or above; 30.4% indicated that their business have been in existence between 11-15 years; 20% indicated between 6-10 years whereas 3.2% indicated that their business have been in existence for 5 years or below. Moreover, most of the respondents (28.8%) have worked with their company between 11-15 years; 26.4% have worked in their company for 5 years or below; 24% have worked between 6-10 years whereas the remaining 20.8% have worked for 16 years or above in their company. Majority of them (40%) were middle managers; 36.8% were supervisors whereas 23.2% were top managers.



4.2 Descriptive Statistics on Logistics Outsourcing Practices

Table 4.2: Descriptive Statistics Results on Logistics Outsourcing Practices

Statements	Mini	Maxi	Mean	Std. D
Cost Reduction				
We achieve significant reduction in overhead and fixed cost through logistics outsourcing.	1.00	7.00	5.53	1.51
Logistics outsourcing enables us to remove unproductive assets.	1.00	7.00	5.76	1.60
We make less investment in assets.	1.00	7.00	5.98	1.26
Logistics outsourcing enables us to redirect our internal resources	1.00	7.00	5.63	1.40
Our logistics outsourcing practices result in the availability of capital funds projects.	2.00	7.00	5.67	1.30
Our service providers have knowledge of cost reduction	1.00	7.00	5.70	1.58
Quality Improvement				
We enjoy sustained product quality improvement resulting from logistics outsourcing.	3.00	7.00	5.84	1.33
There is less wastage.	1.00	7.00	5.79	1.40
We have reduced repeats and reworks.	1.00	7.00	5.80	1.11
We enjoy higher reliability and service competence resources.	1.00	7.00	5.64	1.29
We enjoy increased customer satisfaction.	1.00	7.00	5.62	1.33
We enjoy a sustained increase in product demand.	1.00	7.00	5.40	1.50
Technology Adoption				
Logistics outsourcing allow us to have adequate supporting infrastructure.	1.00	7.00	5.32	1.56
We enjoy fast job performance.	2.00	7.00	5.70	1.12
We enjoy improved machine performance.	2.00	7.00	5.96	1.10
We are more flexible to changing market dynamics.	1.00	7.00	4.79	1.81
We have adequate access to emerging technology.	1.00	7.00	5.70	1.55
We enjoy improved overall efficiency	1.00	7.00	5.77	1.31
Equipment risks are borne by the provider.	1.00	7.00	5.92	1.19
Risk Management				
High risk is shared by both parties.	1.00	7.00	4.90	1.42
The headache of incurring expenses for machine breakdowns has been reduced.	1.00	7.00	5.28	1.33
As a result of outsourcing, we are now able to concentrate on the core activities of the company.	1.00	7.00	5.37	1.29
Alternatives in risk situations are offered by the service provider.	1.00	7.00	5.80	1.34
There is better planning and control of services.	1.00	7.00	5.72	1.28

Source: Field Data, 2022

Table 4.2 presents results on logistics outsourcing practices. With respect to the current study, 7 point Likert-scale was used. More so, the items used to measure logistics outsourcing practices are divided into four which include cost reduction, quality improvement, technology adoption and risk management. The survey revealed that a significant proportion of the participants expressed a moderate level of agreement about the criteria used to evaluate the cost reduction strategies implemented by the companies. The statements provided by the participants in the study are as follows: "We achieve significant reduction in overhead and fixed cost through logistics outsourcing" (mean = 5.33, standard deviation = 1.51); "Logistics outsourcing enables us to remove unproductive assets" (mean = 5.76, standard deviation = 1.60); "We make less investment in assets" (mean = 5.98, standard deviation = 1.26); "Logistics outsourcing enables us to redirect our internal resources" (mean = 5.63, standard deviation = 1.40); "Our logistics outsourcing practices result in the availability of capital funds projects" (mean = 5.67, standard deviation = 1.30); and "Our service providers have knowledge of cost reduction" (mean = 5.70, standard deviation = 1.58). Moreover, a significant proportion of the participants expressed a moderate level of agreement about the indicators used for assessing enhancements in quality. The following statements were provided by participants regarding the benefits of logistics outsourcing: "We experience a consistent enhancement in product quality, as evidenced by a mean score of 5.84 (standard deviation [SD] = 1.33)." "There is a reduction in wastage, as indicated by a mean score of 5.79 (SD = 1.40)." "Repeats and reworks have been minimized, with a mean score of 5.64 (SD = 1.11)." "We observe improved reliability and service competence resources, with a mean score of 5.64 (SD = 1.29)." "Customer satisfaction has increased, with a mean score of 5.62 (SD = 1.33)." "There is a sustained growth in product demand, as reflected by a mean score of 5.40 (SD = 1.50)."

Once again, the majority of the respondents expressed a moderate level of agreement about the items used for assessing technology adoption. The following statements were made by participants in the study: "Logistics outsourcing allows us to have adequate supporting infrastructure" (mean = 5.32, standard deviation = 1.56); "We experience fast job performance" (mean = 5.70, standard deviation = 1.12); "We experience improved machine performance" (mean = 5.96, standard deviation = 1.10); "We are more flexible in response to changing market dynamics" (mean = 4.79, standard deviation = 1.81); "We have adequate access to emerging technology" (mean = 5.70, standard deviation = 1.55); "We experience improved overall efficiency" (mean = 5.77, standard deviation = 1.31); "Equipment risks are assumed by the provider" (mean = 5.92, standard deviation = 1.19). Additionally, a significant proportion of the participants expressed a moderate level of agreement with the elements used in the practice of risk management. The following statements were reported with their respective means (M) and standard deviations (SD): "Both parties share a high level of risk" (M = 4.90, SD = 1.42); "The burden of expenses related to machine breakdowns has been reduced" (M = 5.28, SD = 1.33); "As a consequence of outsourcing, our company is now able to focus on its core activities" (M = 5.37, SD = 1.29); "The service provider offers alternatives in situations involving risk" (M = 5.80, SD = 1.34); "There is improved planning and control of services" (M = 5.72, SD = 1.28). The findings suggest that a significant number of manufacturing firms in the Kumasi Metropolis engage in logistics outsourcing. This practice allows them to effectively decrease overhead and fixed expenses, as well as eliminate unnecessary resources. Consequently, these businesses are able to enhance product quality and minimize wastage, ultimately leading to increased customer satisfaction. Moreover, a significant number of organizations have successfully used logistics outsourcing as a strategic strategy, enabling them to

establish robust infrastructures and leverage cutting-edge technologies. Consequently, the burden of financial liabilities associated with machinery failure has been alleviated.

4.3 Descriptive Statistics on Competitive Strategy

Table 4.3: Descriptive Statistics Results on Competitive Strategy

Statements	Mini	Maxi	Mean	Std. D
Improving production/operating efficiency	1.00	7.00	5.98	1.26
Maintaining experienced and trained personnel	1.00	7.00	5.63	1.40
Adopting innovative manufacturing methods and/or technologies	2.00	7.00	5.67	1.30
Improving/maintaining advertising and promotion	1.00	7.00	5.70	1.58
Building brand identification in the export venture market	3.00	7.00	5.84	1.33
Adopting new/innovative marketing techniques and methods	1.00	7.00	5.78	1.40
Achieving/maintaining quick product delivery	1.00	7.00	5.80	1.11
Achieving/maintaining prompt response to customer orders	1.00	7.00	5.64	1.29
Offering extensive customer service	1.00	7.00	5.62	1.33

Source: Field Data, 2022

Table 4.3 presents the results on competitive strategy of the manufacturing companies in Kumasi Metropolis. In order to assess competitive strategy, 9 items were used and majority of the respondents somewhat agreed on the items. These include “Improving production/operating efficiency” with a mean (std. D) of 5.98(1.26); “Maintaining experienced and trained personnel” with a mean (std. D) of 5.63(1.40); “Adopting innovative manufacturing methods and/or technologies” with a mean (std. D) of 5.67(1.30); “Improving/maintaining advertising and promotion” with a mean (std. D) of 5.70(1.58); “Building brand identification in the export venture market” with a mean (std. D) of 5.84(1.33); “Adopting new/innovative marketing techniques and methods” with a mean (std. D) of 5.78(1.40); “Achieving/maintaining quick product delivery” with a mean (std. D) of 5.80(1.11); “Achieving/maintaining prompt response to customer orders” with a mean (std. D) of 5.64(1.29); and “Offering extensive customer service” with a mean (std.

D) of 5.62(1.33). The implication of these results is that most of the manufacturing companies in Kumasi Metropolis are improving production/operating efficiency, maintaining experienced and trained personnel and adopting innovative manufacturing methods and technologies.

4.4 Descriptive Statistics on Supply Chain Performance

Table 4.4: Descriptive Statistics Results on Supply Chain Performance

Statements	Mini	Maxi	Mean	Std. D
Outsourcing practices results to increased productivity	1.00	7.00	5.25	1.44
Outsourcing frees up organizations from investments in infrastructure that make up the bulk of a back-end process capital expenditure	1.00	7.00	5.84	1.29
Outsourcing frees up organizations from investments in people that make up the bulk of a back-end process capital expenditure	3.00	7.00	5.72	1.13
Outsourcing practices leads to organizational effectiveness	1.00	7.00	6.00	1.37
The organization profits increased as a result of outsourcing practices	1.00	7.00	5.53	1.51
Outsourcing of non-core functions such as administration helps to put the focus back on the core functions of the business	1.00	7.00	5.76	1.60

Source: Field Data, 2023

Table 4.4 presents results on supply chain performance. In order to assess supply, 6 items were used and majority of the respondents somewhat agreed on the items. These include “Outsourcing practices results to increased productivity” with a mean (std. D) of 5.25(1.44); “Outsourcing frees up organizations from investments in infrastructure that make up the bulk of a back-end process capital expenditure” with a mean (std. D) of 5.84(1.29); “Outsourcing frees up organizations from investments in people that make up the bulk of a back-end process capital expenditure” with a mean (std. D) of 5.72(1.13); “Outsourcing practices leads to organizational effectiveness” with a mean (std. D) of 6.00(1.37); “The organization profits increased as a result of outsourcing practices” with a mean (std. D) of 5.53(1.51); and “Outsourcing of non-core functions such as

administration helps to put the focus back on the core functions of the business with a mean (std. D) of 5.76(1.60). The implication of these results is that through logistics outsourcing practices most of the manufacturing companies in Kumasi Metropolis have increased productivity, increase their effectiveness and increased their profit.

4.5 Reliability Test

Table 4.5: Test of Reliability

Constructs	Number of items	Cronbach Alpha
Cost Reduction	6	0.894
Quality Improvement	6	0.884
Technology Adoption	6	0.763
Risk Management	6	0.896
Supply Chain Performance	6	0.855
Competitive Strategy	9	0.903

Table 4.5 presents results on reliability test. According Hair et al. (2014) a measurement instrument is reliable once its individual items have a Cronbach Alpha score that is 0.70 or better. Thereby, the measurement instrument used in this study is reliable and can generate reliable results when used multiple times in different context. Thus, cost reduction instrument attain a Cronbach alpha score of 0.894. Also, quality improvement, technological adoption, risk management, supply chain performance and competitive strategy have a respective Cronbach alpha score of 0.884, 0.763, 0.896, 0.855 and 0.903.

4.6 Correlation Matrix

Table 4.6: Correlation

	1	2	3	4	5	6
1 Cost Reduction	1					
2 Quality Improvement	0.710 (0.000)	1				
3 Technology Adoption	0.608 (0.000)	0.671 (0.000)	1			
4 Risk Management	0.733 (0.000)	0.788 (0.000)	0.781 (0.000)	1		
5 Competitive Strategy	0.903 (0.000)	0.919 (0.000)	0.700 (0.000)	0.820 (0.000)	1	
6 Supply Chain Performance	0.887 (0.000)	0.781 (0.000)	0.655 (0.000)	0.863 (0.000)	0.867 (0.000)	1

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

Table 4.6 presents results on correlation between the variables. The study showed a significant and positive association between cost reduction and supply chain performance (Beta=0.887; p-value=0.000); there was a significant and positive association between quality improvement and supply chain performance (Beta=0.781; p-value=0.000); there was a significant and positive association between technology adoption and supply chain performance (Beta=0.655; p-value=0.000); there was a significant and positive association between risk management and supply chain performance (Beta=0.863; p-value=0.000); and finally there was significant and positive association between competitive advantage and supply chain performance (Beta=0.867; p-value=0.000).

4.7 Multiple Regression Analysis

Table 4.7: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.943 ^a	.889	.885	2.16138
2	.952 ^b	.907	.903	1.98751
3	.960 ^c	.922	.916	1.85203

a. Predictors: (Constant), Risk Management, Cost Reduction, Technology Adoption, Quality Improvement

b. Predictors: (Constant), Risk Management, Cost Reduction, Technology Adoption, Quality Improvement, Competitive Strategy

c. Predictors: (Constant), Risk Management, Cost Reduction, Technology Adoption, Quality Improvement, Competitive Strategy, CS_QI, CS_TA, CS_CR, CS_RM

As indicated in the model summary table, the results revealed that 88.9% variability in the dependent variable (supply chain performance) is explained by the independent variable (risk management, cost reduction, technology adoption and quality improvement) as indicated model 1. Moving on with the model 2, 90.7% variability in supply chain performance is explained by competitive strategy. The results in the model 3 indicated that, 92.2% variability is explained by competitive strategy moderating the independent variables.

Table 4.8: Analysis of Variance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4423.745	4	1105.936	236.737	.000 ^b
	Residual	551.247	118	4.672		
	Total	4974.992	122			
2	Regression	4512.820	5	902.564	228.486	.000 ^c
	Residual	462.172	117	3.950		
	Total	4974.992	122			
3	Regression	4587.401	9	509.711	148.604	.000 ^d
	Residual	387.591	113	3.430		
	Total	4974.992	122			

a. Dependent Variable: Supply Chain Performance

b. Predictors: (Constant), Risk Management, Cost Reduction, Technology Adoption, Quality Improvement

c. Predictors: (Constant), Risk Management, Cost Reduction, Technology Adoption, Quality Improvement, Competitive Strategy

d. Predictors: (Constant), Risk Management, Cost Reduction, Technology Adoption, Quality Improvement, Competitive Strategy, CS_QI, CS_TA, CS_CR, CS_RM

As indicated in the analysis of variance table, the results revealed that (F-statistics = 236.737, p-value < 0.05), (F-statistics = 228.486, p-value < 0.05), (F-statistics = 148.604, p-value < 0.05) for the model 1, model 2 and model 3 respectively. Hence, the models are fit and appropriate for the study.

Table 4.9: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.223	1.209		1.839	.068
	Cost Reduction	.482	.043	.531	11.253	.000
	Quality Improvement	.100	.053	.099	1.891	.061
	Technology Adoption	-.126	.054	-.116	-2.313	.022
	Risk Management	.490	.063	.486	7.742	.000
2	(Constant)	3.111	1.127		2.761	.007
	Cost Reduction	.851	.087	.937	9.767	.000
	Quality Improvement	.545	.106	.543	5.163	.000
	Technology Adoption	-.106	.050	-.097	-2.114	.037
	Risk Management	.507	.058	.503	8.693	.000
	Competitive Strategy	-.579	.122	-.823	-4.749	.000
3	(Constant)	-.902	3.954		-.228	.820
	Cost Reduction	.914	.292	1.006	3.128	.002
	Quality Improvement	-.395	.240	-.394	-1.647	.102
	Technology Adoption	-.331	.214	-.304	-1.542	.126
	Risk Management	1.797	.373	1.785	4.814	.000
	Competitive Strategy	-.517	.147	-.734	-3.504	.001
	CS*CR	-.002	.006	-.210	-.369	.713
	CS*QI	.020	.005	1.802	4.122	.000
	CS*TA	.004	.004	.360	1.020	.310
	CS*RM	-.026	.007	-2.222	-3.528	.001

a. Dependent Variable: Supply_Chain_Performance

Table 4.9 presents results on regression of the variables. The findings of the study indicate that there is a significant relationship between cost reduction (Beta=0.482; t-value=11.253; p-value=0.000) and supply chain performance. Additionally, the adoption of technology is also

found to be a significant determinant of supply chain performance (Beta=-0.126; t-value=-2.313; p-value=0.022). Furthermore, the study reveals that risk management is another significant factor influencing supply chain performance (Beta=0.490; t-value=7.742; p-value=0.000). Nevertheless, based on the findings from model one, it can be concluded that quality enhancement does not have a substantial impact on supply chain performance (Beta=0.100; t-value=1.891; p-value=0.061). Continuing with the second model, the findings indicate that competitive strategy has a crucial role in determining supply chain performance (Beta=-0.579; t-value=-4.749; p-value=0.000).

The findings of the study indicate that in the model 3, the moderating effect of competitive strategy on the relationship between cost reduction and supply chain performance was not found to be statistically significant (Beta=-0.002; t-value=-0.713; p-value=0.001). Additionally, the moderating effect of competitive strategy on the relationship between technology adoption and supply chain performance was also not found to be statistically significant (Beta=0.004; t-value=1.020; p-value=0.310). In contrast, the relationship between quality improvement and supply chain performance is significantly influenced by competitive strategy (Beta=-0.020; t-value=4.122; p-value=0.000). Additionally, competitive strategy plays a significant role in moderating the relationship between risk management and supply chain performance (Beta=-0.026; t-value=-3.528; p-value=0.001).

4.8 Discussion of the Results

4.8.1 Relationship between Logistics Outsourcing and Supply Chain Performance

The study found that, using the four practices of logistics outsourcing, cost reduction, technology adoption and risk management had significant effect on supply chain performance. Nevertheless,

the implementation of quality improvement initiatives did not provide a statistically meaningful impact on the performance of the supply chain. This finding is substantiated by empirical evidence. Logistics outsourcing is the use of external entities to assume responsibility for some or all of the logistics operations that were previously conducted internally (Tripathi, 2020). Currently, there is a growing trend in the use of logistics outsourcing, which is being examined by firms of all sizes, both domestically and internationally, as well as non-corporate entities (Fadile et al., 2018). logistical outsourcing entails the delegation of logistical responsibilities, either in part or in their whole, to external logistics service providers (König & Spinler, 2016; Fadile et al., 2018). According to König and Spinler (2016), the term "logistics outsourcing" (LO) refers to the practice of entrusting a company's logistics operations, either partially or entirely, to an external entity or logistics service provider that has expertise in outsourcing. In practical use, it is uncommon for corporations to fully delegate all of their business operations and procedures to other entities. Hence, it is the preference of enterprises to prioritize their core skills and delegate peripheral tasks to outsourcing organizations, whether they are local or worldwide in nature (Awe et al., 2018).

4.8.2 Relationship between Competitive Strategy and Supply Chain Performance

The research discovered that the implementation of a competitive strategy has a noteworthy impact on the performance of the supply chain. The outcome is substantiated by empirical evidence. Porter (1980) posits, as cited by Khan et al., that competitive strategy pertains to the cultivation of distinctive attributes particular to a business, which serve to distinguish the value and products it generates from those of its rivals. The guiding concept of the company plays a crucial role in determining its competitiveness within the marketplace (Munyiri, 2014). The concept of supply chain performance encompasses the many operations carried out by the extended supply chain in

order to fulfill the demands of end-users. This includes ensuring the availability and timely delivery of products, as well as managing inventories and developing necessary supply chain capabilities to achieve the desired level of performance (Bigliardi & Bottani, 2014). The performance of a supply chain refers to the manner in which a firm attains its market and internal goals, such as operational efficiency (Tzokas et al., 2015). The relationship between productivity enhancement, achieved via cost reduction and profit gain, and the attainment of organizational efficiency (OE) has been identified as a crucial element (Hussain et al., 2018). In recent years, there has been a significant focus on the role of organizational entrepreneurship (OE) as organizations strive to enhance their performance via the creation of innovative alternatives. According to Al-Weshah et al. (2019), the contemporary approach to achieving success as a corporation involves cultivating the capacity to efficiently create diverse goods.

4.8.3 Competitive Strategy as a Moderator

Moreover, the study found that, competitive strategy partially moderated the relationship between logistics outsourcing and supply chain performance. The result is empirically supported, competitive strategy can be understood as the actions taken by a firm to achieve a sustainable competitive strategy in an industry (Olson and Slater, 2015). Competitive strategy is understood as the deliberate choice of a set of actions that form the basis of competitive advantage in order to create a unique value proposition (Kovaleva and de Vries, 2016). It is a long-term, non-reactive action plan that enables a firm to gain competitive advantage over its rivals. Porter (2004) argues that competitive strategy is an attempt to differentiate oneself from competitors, that is, to deliberately choose different courses of action to achieve a unique combination of value. The three types of competitive strategies are: first, seeking to become a low-cost generic producer, or low-

cost strategy; second, differentiating competitors' offerings, or differentiation strategy; and third, seeking to capture a narrow market share, or concentration or niche strategy (Nyaga, 2015).

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CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

This chapter presents the concluding section of the study which intended to examine the moderating role of competitive strategy on the relationship between logistics outsourcing on supply chain performance. Specifically, this chapter comprises of the summary of the findings, conclusion, recommendations and areas for future studies.

5.1 Summary of Findings

5.1.1 The Correlation between Logistics Outsourcing and Supply Chain Performance

The research conducted revealed that the implementation of the four practices of logistics outsourcing, including cost reduction, technology adoption, and risk management, had a substantial impact on enhancing the performance of the supply chain. Once again, the research has determined that a significant number of industrial enterprises in the Kumasi metropolitan have achieved major reductions in their overhead and fixed costs via the practice of logistics outsourcing. Logistics outsourcing has enabled organizations to better allocate and focus their internal resources by allowing them to separate inefficient assets, resulting in reduced investments in such assets. Moreover, the use of logistics outsourcing strategies enables manufacturing enterprises to access capital sources for projects, while their service providers possess expertise in cost reduction techniques.

Many manufacturing companies are experiencing sustained improvements in product quality through the practice of logistics outsourcing, which aligns with the principles of quality improvement. This approach has resulted in reduced wastage by minimizing repetitions and reworks, leading to higher reliability and service competence. As a result, customer satisfaction has increased, leading to a sustained growth in product demand. In the context of technology adoption, a significant number of manufacturing organizations have embraced logistics outsourcing as a means to establish robust supporting infrastructure, hence facilitating efficient job execution and enhanced machine performance. Additionally, these entities exhibit greater adaptability to evolving market dynamics due to their sufficient access to developing technologies, resulting in enhanced overall efficiency. Moreover, the burden of equipment hazards is assumed by the provider. In the context of risk management, many manufacturing organizations often distribute high levels of risk among their business partners. This practice has proven beneficial as it alleviates the burden of paying costs associated with machine failures, allowing these companies to focus on their primary operational endeavours. The service provider offers many options in risk scenarios, including enhanced planning and service management.

5.1.2 The Correlation between Competitive Strategy and Supply Chain Performance

The research revealed that the implementation of a competitive strategy has a notable impact on the performance of the supply chain. Once again, the survey has shown that a majority of manufacturing organizations are improving their production/operating efficiency, retaining skilled and knowledgeable staff, and using new manufacturing processes and/or technology as part of their efforts to develop effective competitive strategies. Additionally, efforts are being made to enhance and sustain advertising and promotional activities, establish brand recognition in the

export venture market, and use novel marketing approaches and strategies. Moreover, manufacturing organizations are achieving and sustaining efficient product delivery, ensuring timely responsiveness to client requests, and providing comprehensive customer service.

5.1.3 The Role of Competitive Strategy as a Moderator in the Relationship between Logistics Outsourcing and Supply Chain Performance

The research showed that the influence of logistics outsourcing on supply chain performance was somewhat tempered by competitive strategy. Furthermore, research has shown that the implementation of outsourcing procedures and the adoption of competitive strategies by manufacturing organizations have led to a notable enhancement in productivity levels. Moreover, the firms have seen a liberation from investments in infrastructure and human resources, which constitute the majority of capital expenditures for back-end processes. Furthermore, the organizations have enhanced their operational efficiency and achieved higher levels of profitability. Once again, firms have the ability to shift their attention from non-essential services, such as administration, and instead prioritize key functions inside their company operations.

5.2 Conclusions

Previous research has presented evidence supporting the notion that logistics outsourcing has gained significant prominence in the modern business landscape. This is primarily attributed to its strategic significance, which encompasses various benefits such as cost reduction in production inputs, adoption and utilization of technology, effective risk management, and enhanced quality of services and products. The primary aim of this research is to investigate the impact of logistic outsourcing services on the performance of the supply chain, while also considering the

moderating effect of competitive strategy. The research used a quantitative methodology, using structured questionnaires and a random sample strategy to choose a total of 125 manufacturing organizations. The study was conducted using the Statistical Package for the Social Sciences (SPSS). The research revealed that cost reduction, technology adoption, risk management, and competitive strategy were all found to be significant determinants of supply chain performance. Nevertheless, the impact of quality improvement on supply chain performance was shown to be insignificant. Once again, the research revealed that competitive strategy has a partly moderating role in the link between logistics outsourcing and supply chain performance. Thus, the research reached the conclusion that logistics outsourcing and competitive strategy serve as predictors of supply chain success.

5.3 Proposed Recommendations

The study's results and conclusion provide many suggestions for manufacturing businesses in Ghana to enhance their supply chain performance by using logistics outsourcing methods and competitive tactics.

It is recommended that managers responsible for logistics and supply chain operations in manufacturing companies in Ghana adopt cost reduction and quality improvement practices, alongside technology adoption and risk management strategies. These approaches have demonstrated their effectiveness and efficiency in enhancing supply chain performance.

Additionally, it is recommended that policy makers, stakeholders, and other entities within Ghana's manufacturing sector develop comprehensive strategies and establish more resilient norms aimed at facilitating and advancing the use of logistics outsourcing methods. Therefore, it is imperative

for these stakeholders to enact measures that would incentivize manufacturing enterprises nationwide to embrace the use of logistics outsourcing strategies. The implementation of these policies should be prioritized in order to effectively achieve cost reduction, quality improvement, technology adoption, and risk management, since these variables have been identified as crucial elements for enhancing the performance of the supply chain.

It is crucial for manufacturing companies and their business partners to understand the significance of implementing logistics outsourcing practices. Therefore, professionals in the field of logistics management should thoroughly explore this concept and present their findings to clients, with the aim of facilitating the widespread adoption of logistics outsourcing practices throughout the nation. Moreover, it is crucial for manufacturing companies to prioritize the investment in skills and the acquisition of knowledge pertaining to the management of logistics functions. This necessitates the creation of additional opportunities for workers to enhance their education and training in logistics. By doing so, the adoption level of these practices can be increased.

5.4.1 Potential Areas for Future Research

The primary objective of this research is to evaluate the moderating influence of competitive strategy on the correlation between logistics outsourcing and supply chain performance. The present investigation used a quantitative research methodology. Hence, it is advised that future research use other methodologies such as qualitative or mixed methods. Additionally, the research used primary data collection methods via the implementation of a standardized questionnaire. Therefore, it is advised that future research include other sources of data, including secondary data.

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APPENDIX

SURVEY QUESTIONNAIRE

My name is David Adombire. I am a student at Kwame Nkrumah University of Science and Technology School of Business, Department of Supply Chain and Information Systems. This survey instrument has been designed to enable me to carry out the research required for my Master's degree. Any information provided will ONLY be used for general information, and it will be treated as HIGHLY CONFIDENTIAL.

Section A: Demographic

INSTRUCTIONS: Please kindly tick in the box which corresponds to the statement, which in your opinion is the most appropriate answer to the related question. For the following questions, kindly select by ticking all that apply

1. Indicate your Age group
20 to 29 years ☐ 30 to 39 years ☐ 40 to 49 years ☐ 50 years and above ☐
2. Indicate your Gender
Male ☐ Female ☐
3. Indicate your Educational level
JHS ☐ SHS ☐ Bachelor degree ☐ Master's degree ☐ PhD ☐
4. What is your firm's industry?
Service ☐ Mining/Extraction ☐ Agribusiness ☐ Manufacturing ☐ Other.....
5. How long has your firm existed?
0-5 years ☐ 6-10 years ☐ 11-15 years ☐ 16 years and above ☐
6. How many years have you worked with the firm?
0-5 years ☐ 6-10 years ☐ 11-15 years ☐ 16 years and above ☐
7. Indicate your Managerial level
Supervisor ☐ Middle manager ☐ Top manager ☐

Section B: Logistics Outsourcing Practices (*Jean (2019)*)

Using the 7-point Likert scale, please indicate your level of agreement or disagreement with regards to the following statements in your organization. 1=Strongly Disagree; 2=Disagree; 3=Somewhat Disagree; 4=Neutral; 5=Somewhat Agree; 6=Agree; 7=Strongly Agree

Statements	1	2	3	4	5	6	7
Cost Reduction							
We achieve significant reduction in overhead and fixed cost through logistics outsourcing.							
Logistics outsourcing enables us to remove unproductive assets.							
We make less investment in assets.							
Logistics outsourcing enables us to redirect our internal resources							
Our logistics outsourcing practices result in the availability of capital funds projects.							
Our service providers have knowledge of cost reduction							
Quality Improvement							

We enjoy sustained product quality improvement resulting from logistics outsourcing.								
There is less wastage.								
We have reduced repeats and reworks.								
We enjoy higher reliability and service competence resources.								
We enjoy increased customer satisfaction.								
We enjoy a sustained increase in product demand.								
Technology Adoption								
Logistics outsourcing allow us to have adequate supporting infrastructure.								
We enjoy fast job performance.								
We enjoy improved machine performance.								
We are more flexible to changing market dynamics.								
We have adequate access to emerging technology.								
We enjoy improved overall efficiency								
Risk Management								
Equipment risks are borne by the provider.								
High risk is shared by both parties.								
The headache of incurring expenses for machine breakdowns has been reduced.								
As a result of outsourcing, we are now able to concentrate on the core activities of the company.								
Alternatives in risk situations are offered by the service provider.								
There is better planning and control of services.								

Section C: Supply Chain Performance (*Bore and Mwaura, 2020*)

Using the 7-point Likert scale, please indicate your level of agreement or disagreement with regards to the following statements in your organization. 1=Strongly Disagree; 2=Disagree; 3=Somewhat Disagree; 4=Neutral; 5=Somewhat Agree; 6=Agree; 7=Strongly Agree

Statements	1	2	3	4	5	6	7
Outsourcing practices results to increased productivity							
Outsourcing frees up organizations from investments in infrastructure that make up the bulk of a back-end process capital expenditure							
Outsourcing frees up organizations from investments in people that make up the bulk of a back-end process capital expenditure							
Outsourcing practices leads to organizational effectiveness							
The organization profits increased as a result of outsourcing practices							
Outsourcing of non-core functions such as administration helps to put the focus back on the core functions of the business							

Section D: Competitive Strategy (*Morgan et al. 2004; Mohsenzadeh and Ahmadian, 2016*)

Using the 7-point Likert scale, please indicate your level of agreement or disagreement with regards to the following statements in your organization. 1=Strongly Disagree; 2=Disagree; 3=Somewhat Disagree; 4=Neutral; 5=Somewhat Agree; 6=Agree; 7=Strongly Agree

Statements	1	2	3	4	5
Cost Leadership					
Improving production/operating efficiency					
Maintaining experienced and trained personnel					
Adopting innovative manufacturing methods and/or technologies					
Marketing Differentiation					
Improving/maintaining advertising and promotion					
Building brand identification in the export venture market					
Adopting new/innovative marketing techniques and methods					
Service Differentiation					
Achieving/maintaining quick product delivery					
Achieving/maintaining prompt response to customer orders					
Offering extensive customer service					

