

**ASSESSMENT OF SUPPLY CHAIN PRACTICES ON PERFORMANCE OF
MANUFACTURING FIRMS IN KENYA: CASE STUDY OF BIDCO AFRICA**

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DECLARATION AND APPROVAL

Declaration by the student

This project is my original work and has not been presented for a degree in any other university or for any other award.

Signature



Date.....08/04/2024.....

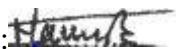
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It is with God that this work was accomplished therefore; first appreciation to the Almighty God. **Dr. Remmy Simiyu**, my supervisor, is recognized in this work for careful advice, which led to refining the work. Last, but not least, it is important to acknowledge my family for the care and hope they gave me during the time of preparation of this work. They supported me physically, and socially and ensured an enabling environment to conduct my studies.



DEDICATION

This work is specifically dedicated to my father David Mueke ,mother Esther Mwelu and my grandmother Elizabeth Kalevu.



ABSTRACT

Bidco Africa's manufacturing sector is crucial to Kenya's economic advancement as it creates job opportunities and makes substantial contributions to the country's overall production and exports. Nevertheless, there is a dearth of research on the supply chain strategies employed by Bidco Africa as a manufacturing company and their impact on its overall performance. The study aimed to assess the influence of the supply and purchase management relationship on the performance of Bidco Africa. Additionally, it sought to evaluate the impact of logistics management and outsourcing practices on the performance of Bidco Africa. The study was based on various theories relevant to the problem statement, including the Transaction Cost Economics Theory, and the Resource-Based Theory. The study utilized a descriptive research design and the target audience consisted of employees from Bidco Africa. This included Information Officers, Dispatch Coordinators, Lead Sales and Distributors, Warehouse and Logistics personnel, Sales Managers, Procurement Officers, and Sales Representatives. The study used the stratified random sampling technique and the 10% sample size determination technique was implemented. Subsequently, the systematic sampling method was employed to pick a sample population that is devoid of bias. Therefore, a sample size of 31 respondents was used. The questionnaires served as the main tools for collecting data, and the drop-off and pick-up technique was used for data collection. The data analysis was conducted using the Statistical Package for Social Sciences (SPSS) and Microsoft Excel. The results were presented through the use of tables, pie charts, and bar graphs. Both descriptive and inferential analysis techniques were also be utilized. The study concluded that Bidco Africa's performance is significantly influenced by supply chain management, logistics management, and outsourcing practices. Each of these factors positively and significantly impacts the company's performance. Specifically, regression analysis indicated that supply chain management contributes 63.4% to Bidco Africa's performance, logistics management accounts for 69.3%, and outsourcing practices have a 60.8% effect. The study recommended that future research should focus on several key areas to further enhance understanding of Bidco Africa's supply chain dynamics. Additionally, exploring how sustainable supply chain practices affect brand equity and customer loyalty may reveal important long-term performance metrics. Comparative studies with other regional or global firms could help identify best practices and benchmarks, while case studies of specific supply chain disruptions and their resolutions would offer practical lessons on risk management and responsiveness. This comprehensive approach would not only deepen knowledge of Bidco Africa's supply chain but also provide actionable recommendations for optimizing performance in a rapidly evolving market.

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LIST OF ACRONYMS AND ABBREVIATIONS

EAC- East African Community

IoT-Internet of Things

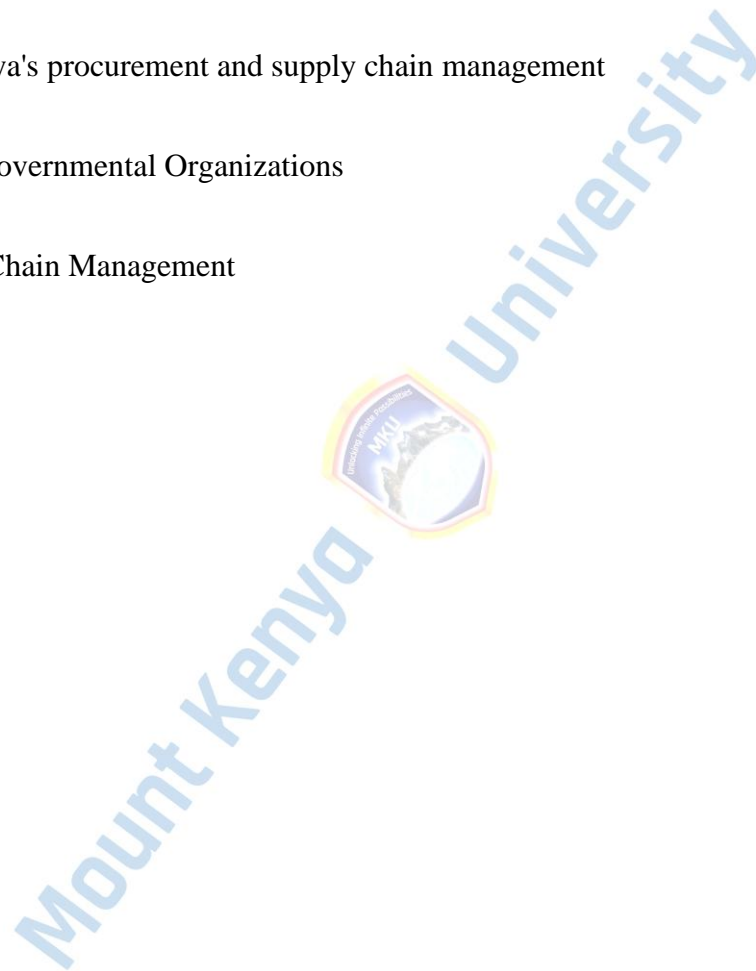
KISEB-The Kenya Institute of Supplies Examinations Board

KISM- Kenya Institute of Supply Management

KPSCM- Kenya's procurement and supply chain management

NGOs- Non-Governmental Organizations

SCM-Supply Chain Management



CHAPTER ONE: INTRODUCTION

1.0 Introduction

This chapter provides a critical analysis of the background of the study, including the global, regional, and local perspectives. Furthermore, it also highlights the articulation of the statement of the problem, research objectives, research questions, research significance, and ultimately the study scope

1.1 Background of the Study

Supply chain management plays a pivotal role in the success of manufacturing firms by influencing various aspects of their performance. Thus, in the contemporary business landscape, manufacturing firms face increasing pressure to optimize their supply chain practices to remain competitive and achieve superior performance outcomes. Effective supply chain management encompasses a range of activities, including procurement, production, distribution, and logistics, all of which significantly impact a firm's performance metrics (Handfield *et al.*, 2019). Moreover, supply chain practices profoundly affect the cost structure of manufacturing firms. Efficient procurement processes, streamlined production operations, and effective inventory management contribute to cost reduction and enhanced profitability (Mentzer *et al.*, 2001). Additionally, lean manufacturing principles, such as just-in-time inventory management and continuous improvement initiatives, enable firms to minimize waste and optimize resource utilization, thereby improving cost efficiency (Christopher, 2019). As well, strategic sourcing and supplier relationship management practices help negotiate favorable terms and mitigate supply chain risks, further enhancing cost competitiveness (Handfield *et al.*, 2019). Hence, effective supply chain management

enables firms to identify and address quality issues promptly, thereby reducing defects, rework, and warranty claims (Fawcett et al., 2024). Continuous monitoring and improvement of supply chain processes contribute to sustained product quality and customer satisfaction, fostering long-term relationships with key stakeholders (Chopra & Meindl, 2020).

Global research studies have indicated a substantial decline in manufacturing performance in 2020, followed by a notable recovery in 2021. However, in 2021, there was a 9.4% increase in production within the manufacturing sector, after a 4.2% decrease in 2020 (Barney, 2021). Subsequently, according to Kapcha, (2022), the last 20 years have witnessed swift changes in the world of manufacturing, and as a consequence, manufacturing organizations' performance has accelerated in reaction to uncertainty. Hence, manufacturing firms have revamped their operations in order to fulfil market requirements, given the emergence of global competitors in both local and international trade.

Hitt and Hoskisson (2017) state that global manufacturing firms prioritize the establishment of a long-lasting competitive advantage as their main goal in both their corporate and functional level strategies. Giunipero, Handfield, and Eltantawy (2019) suggest that companies may enhance their ability to navigate competition by shifting their emphasis from traditional to strategic thinking for purposes of enhancing their manufacturing performance. In addition, manufacturing firms worldwide have traditionally depended on, financially compensated, and placed reliance in external providers of competitive services to enhance the effectiveness and efficiency of their internal resource operations while reducing expenses. Hence, these enterprises have made a major economic contribution due to their

industrial activity (Nzioka, 2023). Moreover, it has been shown that manufacturing plays a crucial role in a nation's long-term economic well-being and progress (Owuoth, 2020).

Regionally, the significance of manufacturing in African countries' GDP has varied throughout the years since independence, but it has gained increasing importance in recent years as its percentage of GDP has grown. Consequently, the Africa region has seen significant transformations in its manufacturing industry over the years. Although the industrial sector in Africa usually contributes just a small fraction to the total output and employment, it has always been considered crucial for economic growth and development. Locally, manufacturing contributed to 10.3% of Kenya's GDP in 2015 and 3.5% in 2014 (KNBS, 2016). Although the GDP had a growth rate of 5.6% in 2015, the Kenyan manufacturing sector has been exhibiting a comparatively slower rate of increase on average. This indicates a pattern of diminishing manufacturing's impact on the Kenyan Gross Domestic Product (GDP). Hence, one might argue that Kenya is undergoing premature deindustrialization, considering the nation's comparatively underdeveloped manufacturing and industry sectors (Mugo, 2020).

On the other hand, various entities such as local manufacturers, franchise importers involved in distribution, international corporations, wholesalers, and retailers all make substantial contributions to Kenya's manufacturing sector. As a result, approximately 9,000 manufactured products have been legally documented and approved for sale in (Kenya Manufacturing Society of Kenya, 2019).

However, the decline in employment opportunities in Kenya may be attributed to the relocation or restructuring of several manufacturing firms, which have opted to import goods from countries with cheaper production costs in order to meet the demands of the local

market (Nyabiage & Kapchanga, 2024). Furthermore, because of the constraints of the operating environment, a sizable portion of Kenyan manufacturing companies are also facing performance issues and profit warnings (RoK, 2019).

Furthermore, manufacturers in Kenya have seen stagnant or declining profits in the last five years due to the country's volatile economic environment. Thus, according to KNBS (2016), the manufacturing sector's share of Kenya's GDP decreased from 5.6% in 2015 to 13.6% in 2016. Consequently, due to the lack of information in this area, it is therefore crucial to conduct research on the effects of supply chain practices on Kenyan manufacturing firms (Nzioka, 2023).

Supply Chain Practices and Performance of Manufacturing Firms

Supply chain management refers to a series of processes that firms use to effectively supervise their supply chain. Further investigation has shown diverse supply chain strategies used in various industries. Subsequently, Koplın *et al.* (2019) undertook empirical research to investigate the potential correlation between supply chain practices and the success of small and medium-sized enterprises (SMEs) in Turkey. The study identified twelve supply chain management (SCM) techniques that have a negative impact on the performance of manufacturing firms. These techniques include supplier partnerships, benchmarking, customer connections, e-procurement, just-in-time processes, strategic planning, outsourcing, subcontracting, maintaining buffer stock, and third-party logistics (Wanjohi, & Mugure, 2018).

On the other hand, manufacturing performance refers to the degree to which a manufacturing firm can accomplish its goals by using its resources effectively and efficiently (Fauzi *et al.*, 2020). According to Huber (2024), organizational performance assessment ensures that

strategic activities align with the strategic plan, leading to improved financial results through reduced process costs, increased productivity, and enhanced mission effectiveness (Wanjohi, & Mugure, 2018).

Similarly, Richard *et al.* (2019) defines manufacturing performance measurement as the process of quantifying the effectiveness of organizational management and the value it has delivered to stakeholders and customers. However, according to Ango (2018), manufacturing performance measures may be categorized as either monetary or non-monetary. Some of these monetary factors determining performance include profitability, market share, liquidity, and economic viability. On the other hand, efficiency, customer satisfaction, and decision accuracy are non-monetary measures.

Profile of Bidco Africa

According to Walekwa (2023), Bidco Africa, a consumer goods firm formerly known as Bidco Oil Refineries Limited (BORL), is headquartered in Thika, Kenya. Its branches and distributorships serve seventeen countries in Southern, Central, and Eastern Africa. Bhimji Depar Shah founded Bidco Africa in 1970 with the aim of manufacturing garments. The firm diversified its operations in 1985 by venturing into soap manufacturing, and subsequently, in 1991, it began production of edible oil. In 1998, Unga Group, a publicly listed business on the Nairobi Securities Exchange, divested its Elianto segment to Bidco. This acquisition was Bidco's first transaction. BIDCO Oil & Soap Ltd started its regional growth into Tanzania with the creation of its branch in Dar es Salaam in 2001. It was Bidco's first venture into a swiftly growing market in Africa. In 2002, Bidco acquired Unilever's Kenyan branch that produces edible oil and soap. Currently, the roster consists of notable

competitors such as Kimbo and Cowboy. The development of the Bidco Uganda Limited Complex in Jinja, Uganda, in 2005 marked the firm's entrance into the nation. Since its inception, this plant has been exporting its products to both internal and international markets in Uganda. In addition to a range of cosmetics and personal care products, the firm introduced its "Pure and Natural Bar" soap in 2011 (Shah, 2019). In 2013, Bidco developed a range of personal care and cosmetic products, including Nuru high-quality multifunctional soaps, Power Boy Pro-Active Liquid detergent, and pure and natural Active Man. In 2014, the Company developed numerous personal care and beauty soaps, including Germonil, a personal hygiene product, and Gaea, a family bath soap. In the following year, the company expanded its range of products by including animal feed into its stock. The company's new production line, which cost Sh500 million, has a daily output capacity of 100 metric tonnes of animal feed, making it a very efficient and powerful facility. Bidco Land O'Lakes Ltd. was established in 2016 via a collaboration with Land O'Lakes Ltd., a multinational company included in the Fortune 500 list. The collaborative enterprise initially focused on manufacturing animal feeds for the Kenyan market, but has since extended its operations to include other countries in East Africa. Bidco Africa revealed a diversification strategy in 2017, which involves investing \$200 million over a period of five years. As part of this strategy, Bidco Africa plans to start a minimum of four new enterprises. As part of the development, a beverage facility and noodle factory were constructed in an industrial park in Ruiru. Bidco Africa is poised to become the leading manufacturer of consumer items in East Africa, as reported by the BBC in February 2019. The company has more than 40 brands and has a workforce of over 25,000 individuals. The narrative centres on the company's expansion and growth within the food and beverage sector.

According to Shah, (2023), Bidco Africa stands unrivalled among East African makers of FMCG. Starting as a soap factory in Nairobi in 1985, Bidco has had consistent growth and currently serves as the regional hub for renowned brands in the edible oils and fats, personal care, hygiene, and, more recently, food and beverage sectors in East Africa (Shah, 2023).

Walekwa, (2023), posits that Bidco Africa has expanded its product range to include a diverse range of food and beverage alternatives, in addition to its current assortment of over 50 brands in the edible oils and fats, hygiene, and personal care sectors. It has also taken part in manufacturing carbonated beverages, instant noodles, and fruit juices. Bidco Africa's current product line includes a wide range of commodities such as food and drink, animal feed, personal care products, detergents, edible oils, margarine, and laundry bars. Thus, Bidco Africa, the dominant producer and seller of consumer goods in the region, oversees a portfolio of over 40 brands (Walekwa, 2023).

1.2 Statement of the Problem

According to GoK, (2023), Kenya has a significant manufacturing sector that supplies products to both local customers and neighbouring countries in East Africa. This sector contributes approximately 13% of the country's Gross Domestic Product (GDP), with many of the manufacturing companies being owned by international corporations. On the other

hand, Bidco Africa's manufacturing sector plays a pivotal part in Kenya's economic progress by generating employment opportunities and making significant contributions to the country's overall production and exports. In order to boost Kenya's GDP, it is necessary for the manufacturing sector, namely Bidco's manufacturing sector, to improve its performance. Thus, Bidco Africa's supply chain practices have a substantial influence on its performance and success, particularly considering the competitive global and local contexts in which they compete (United, N. International, 2020).

Various studies have been conducted on the performance of Bidco Africa. For instance, Kirui (2021), in his studies on the influence of outsourcing practices on the performance of Bidco Africa, found out that outsourcing is significant in determining the performance of Bidco Africa. Nyaoga and Ombati (2023), in their empirical studies sought to determine the impact of Corporate Social Responsibility and Sustainability on the performance of Bidco Africa. This study analyzed the impact of Bidco Africa's CSR programs on local communities and their effectiveness in fostering enhanced performance.

However, there has not been a comprehensive study done on the effect of supply chain management practices on the performance of Bidco Africa thereby creating a knowledge gap (Walekwa, 2023). Therefore, this study aims to look at the joint relationship of the supply chain management practices on the performance of Bidco Africa.

1.3 Research Objectives

1.3.1 General Objective

To assess the supply chain practices on the performance of Bidco Africa.

1.3.2 Specific Objectives

- i. To assess the effect of supply chain management on the performance of Bidco Africa.
- ii. To evaluate the level of logistics management on the performance of Bidco Africa.
- iii. To examine the effect of outsourcing practices on the performance of Bidco Africa.

1.3.3 Research Questions

- i. How do supply chain management affect the performance of Bidco Africa?
- ii. To what level does logistics management affect the performance of Bidco Africa?
- iii. How do outsourcing practices influence the performance of Bidco Africa?

1.6 Significance of the Study

Manufacturing Firms in Kenya

This research aims to provide significant insights to Kenyan manufacturing firms, enabling them to get a comprehensive understanding of the influence of supply chain management practices on their financial success. Understanding how supply chain practices impact performance can inform trade policies and strategies. As manufacturing firms increasingly operate in global supply chains, policymakers can tailor trade agreements and regulations to promote efficient supply chain management practices, thus boosting competitiveness in international markets.

Government Agencies and Institutions

The results of this study will be valuable to government agencies and institutions as they aim to improve their understanding of the current supply chain processes used by research institutes and the difficulties involved in implementing them. Governments and policymakers can utilize findings from such studies to shape policies aimed at enhancing the

competitiveness of manufacturing sectors. This includes incentives for adopting efficient supply chain practices, promoting technological advancements, and facilitating collaboration among firms to improve overall performance and productivity.

1.7 Scope of the Study

The scope of this research is to examine the impact of supply chain practices on the performance of manufacturing firms in Kenya. Furthermore, the aim of this study is to concurrently investigate the influence of the supply and purchase management relationship on the performance of Bidco Africa, the effect of logistics management on the performance of Bidco Africa, and the impact of outsourcing practices on the performance of Bidco Africa. The investigation will be limited to Bidco Africa, a prominent manufacturing company in Kenya. Bidco Africa has been selected as the management team will provide comprehensive data for the research study. Bidco's management team comprises information officers, customer response team members, and commercial directors. The research specifically examined the top management, middle level management, and operational workers of Bidco Africa.

1.8 Limitations, Delimitation's and Assumptions of the Study

Limitations

Sample Size: The study might be limited by the size of the sample population. Bidco Africa might have a limited number of respondents available for the study, which could affect the generalizability of the findings.

Data Availability: Availability and accessibility of data related to Bidco Africa's supply chain management practices and performance might pose limitations. Incomplete or outdated data could affect the accuracy and reliability of the study's conclusions.

Time Constraints: The study may be limited by time constraints, affecting the depth and breadth of the analysis. Limited time might restrict the researcher's ability to explore all relevant aspects comprehensively.

Resource Constraints: Resource limitations, such as funding and access to technology or tools for data analysis, could impact the scope and quality of the research.

External Factors: External factors beyond the researcher's control, such as changes in market conditions, regulatory environment, or economic fluctuations, could influence the study's outcomes.

Delimitation's

Scope: The study focuses specifically on certain aspects of supply chain management practices within Bidco Africa, such as inventory management, logistics, or supplier relationships, rather than covering all possible dimensions.

Geographical Delimitation's: The study is delimited to specific geographical locations where Bidco Africa operates, which could impact the generalizability of the findings to other regions.

Time frame: Delimiting the study to a specific time frame, such as focusing on recent years or historical data, helps provide a clearer context but may not capture long-term trends or changes.

Organizational Structure: Delimiting the study to certain departments or levels within Bidco Africa's organizational structure, such as focusing on a particular division or management level, affects the breadth of the analysis.

Assumptions

Homogeneity of Data: The study may assume that the data collected from Bidco Africa's various departments or locations are homogeneous and representative of the entire organization.

Causal Relationships: Assumptions about the causal relationships between supply chain management practices and performance metrics may be made based on theoretical frameworks or previous research.

Stability of Variables: The study may assume that key variables, such as market conditions or consumer preferences, remain relatively stable over the study period.

Validity of Measures: Assumptions about the validity and reliability of measurement tools and techniques used to assess supply chain management practices and performance indicators may be made.

Management Support: The study may assume that Bidco Africa's management provides adequate support and cooperation for data collection and research activities.

1.9 Conceptual Definition of Terms

Supply Chain Practices refer to the processes, activities, and strategies involved in the management of goods and services as they move from suppliers to manufacturers, distributors, retailers, and ultimately to customers. These practices encompass a wide range of activities, including sourcing raw materials, manufacturing, transportation, inventory management, warehousing, and distribution. Effective supply chain practices aim to

optimize the flow of goods and information throughout the supply chain network to minimize costs, reduce lead times, improve quality, and enhance customer satisfaction.

Performance refers to the execution or accomplishment of a task, activity, or function relative to predetermined objectives, standards, or expectations. In this context, it refers to the profitability, revenue growth, cost management, and other financial metrics that indicate the health and success of Bidco Africa.

Supply and Purchase Management Relationship involves the strategic processes and activities related to acquiring goods, services, or resources needed by an organization to operate efficiently and effectively.

Logistics Management is the process of planning, implementing, and controlling the flow of goods, services, and information between the point of origin and the point of consumption in order to meet customer requirements efficiently. It involves coordinating various activities such as transportation, warehousing, inventory management, packaging, and sometimes even the integration of information technology systems to optimize the movement and storage of products. The goal of logistics management is to ensure that the right products are delivered to the right place, at the right time, and in the right condition, all while minimizing costs and maximizing efficiency.

Outsourcing Practices involves contracting out certain business functions or processes to external third-party providers rather than handling them in-house. This can include a wide range of activities such as manufacturing, customer support, IT services, human resources, and more. Outsourcing is typically pursued to leverage specialized expertise, reduce costs,

access resources not available internally, improve efficiency, or focus on core business activities.



CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter examines the supply chain practices and its effects on the performance of Bidco Africa's business operations. The theoretical literature review analyzes and synthesizes existing theories or models related to a specific topic or research question. Thus, the theoretical review aims to provide a deeper understanding of the underlying concepts, principles, and theoretical frameworks that inform research in a particular field. On the other hand, the empirical literature study offers useful insights into the discourse around the influence of supply chain practices on the performance of Bidco Africa.

2.2 Theoretical Literature Review

This facilitates the examination of existing theories, their interconnections, the depth of research on these theories, and the formulation of verifiable hypotheses. This chapter is anchored on several theories related to the problem statement such as the Transaction Cost Economics Theory, and Resource Based Theory.

Transaction Cost Economics Theory

Ronald Coase developed the transaction Cost Economics Theory in 1937 to explain the existence of firms. According to his theory, engaging in commercial activities via market processes incurs a financial cost. This is particularly true as it pertains to locating a counterpart for commerce and establishing and upholding agreements. An analysis of the theory of transaction costs (TCT) is beneficial for comprehending the division of duties between markets and firms. The expenses related to transactions may be distinguished from those related to coordination (Clemons & Row, 1992). Coordination costs escalate and transaction risk amplifies as a result of two factors: the level of specificity of the asset and the degree of uncertainty associated with it (Williamson, 1985).

The Theory of Transaction Cost Economics (TCE) posits that uncertainty plays a crucial role, based on the premise that individuals have limited cognitive abilities and prefer to prioritize their own self-interest. At this step, two organizations are evaluated for possible partnership creation or expansion, taking into account their distinctive strengths as potential examples of suitable governance for certain commercial operations. Williamson (2021) states that the primary factors influencing the choice to form a partnership are asset specificity, exchange uncertainty, and transaction frequency. Furthermore, additional

research has delved into Transaction Cost Economics (TCE) to examine the drawbacks of partner agreement and trust, as well as the advantages of partnerships, such as improved allocation of supply chain resources and enhanced responsiveness to clients (Lambert et al., 2018). The ability of supply chains to withstand disruptions is increasingly reliant on the efficient management of risks associated with inter-business relationships (Ringsberg, 2019). Companies should aggressively pursue appropriate ways of transaction governance to effectively oversee and mitigate the increasing array of hazards linked to exchanges. Transaction cost economics (TCE) is widely acknowledged as a reliable paradigm for comprehending how market players use vertical relationship management methods to mitigate transaction risks and associated expenses (Koufteros, 2019).

The Transaction Cost Economics Theory is in line with this current study as it helps Bidco Africa in carefully selecting suppliers based on TCE principles. This involves evaluating suppliers not only based on price but also on their reliability, quality, and the costs associated with monitoring and enforcing agreements. By choosing suppliers who can provide high-quality inputs reliably and at a reasonable cost, Bidco can therefore minimize transaction costs associated with supplier relationships.

Resource Based Theory

Penrose (2009) model established the basis for Resource-Based Theory (RBT), which centers on the efficient distribution of resources, diversification strategy, and productive possibilities. Intangible knowledge-based assets provide a competitive edge from a resource-based (RBV) standpoint owing to its uniqueness, arduous replicability, and deep assimilation into the company's culture. The Resource-Based View (RBV) states that resources are

strategic and provide a competitive advantage when they exhibit economic worth, originality, are difficult to copy, and are supported by the organization (Barney, 2017). Various methodologies exist for classifying strategic resources, each with varying degrees of overlap.

Numerous recommendations exist on the potential use of certain resources. Some suggest using exclusive or physical assets rather than information-driven or immaterial assets. Additionally, there are individuals who integrate these resources with tangible, inherent, and financial resources (Foss, 2019). The efficiency of a company's operations is dependent on its tangible assets, but its competitive advantage is more likely to originate from its intangible, knowledge-driven assets.

Hence, the Resource-Based View (RBV) is unrivalled in its capacity to bolster and amalgamate corporate strategy and company outcomes. Zott (2022) states that the Resource-Based View (RBV) specifically examines how a company's internal financial resources directly affect its performance. According to this idea, a company's ability to effectively develop and provide more value to its consumers is strongly connected to the resources it has, hence providing it a considerable advantage over competitors. The Resource-Based View (RBV) underscores the need of possessing a diverse array of procurement and supply chain management abilities to attain and sustain a competitive edge. Corporations such as Toyota and Walmart have used unique supply chain and logistics technologies in order to improve their competitive advantage and streamline their operations in the market (Barney, 2012). According to the resource-based approach (Miles & Snow, 2017), companies may enhance their strategy and achieve competitive advantages by using their resources.

The Resource Based Theory is in line with this current study as it highlights the importance of firm-specific capabilities in leveraging resources to achieve competitive advantage. Bidco Africa may have developed capabilities in supply chain management, such as demand forecasting, inventory optimization, logistics optimization, and quality control. These capabilities enable Bidco Africa to effectively manage its supply chain, reduce costs, improve efficiency, and deliver high-quality products to customers.

2.3 Empirical Literature Review

In order to address the research objectives and questions of the study, a comprehensive analysis of the existing empirical data is carried out. Critical review is a thorough and methodical analysis of previous research findings.

supply chain management and Performance of Bidco Africa

According to Ulaga and Eggert (2019), supplier and purchase relationship management refers to a methodical approach for evaluating the firms that provide a company with its inputs, outputs, and services. Additionally, it involves determining the level of dedication each supplier has towards ongoing improvement and developing strategies to enhance their effectiveness. On the other hand, Supplier relationship management (SRM) is a systematic strategy to evaluating suppliers who provide a firm with goods, materials, and services, and developing strategies to improve the performance of each supplier. The SRM discipline may provide a better understanding of the value of each supplier and identify which ones are most crucial for a company's success. Additionally, it assists managers in prioritizing their relationships with suppliers based on their importance (Ulaga & Eggert (2019)).

According to a study conducted by Choi and Hartley, (2016), the objective of supply and purchase management is to establish a well-coordinated connection between a business and its suppliers, especially those that significantly impact its reputation. Furthermore, its purpose is to foster ingenuity, productivity, and exemplary performance. In order to gain a competitive advantage in the market, a well-implemented Supplier Relationship Management (SRM) strategy seeks opportunities to reduce expenses while maximizing the value derived from its suppliers. Due to the emergence of global and linked buyer-supplier networks and the increasing relevance of important suppliers, organizations have recognized the heightened necessity of supplier relationship management. SRM creates a framework for managing the duration of relationships and identifying which suppliers are considered strategic partners. The methods provide a benchmark for successful communication and performance evaluation between organizations and their suppliers (Choi & Hartley, (2019).

Moreover, according to Spekman (2018), the field of supplier and buyer interactions aids in assessing the value of each supplier, who often play a crucial role in maintaining the stability and unity of a firm. According to Nagati and Rebolledo (2019), managers may improve their connections with suppliers by evaluating the worth of each source separately. Krause (2019) suggests that the nature of the relationship between a company and its suppliers should be determined by the importance of the goods and services being purchased and provided inside the organization (Spekman, 2018).

A research study conducted by McCathy, (2021), used structural equation modelling to empirically investigate several hypothesized correlations among a sample of 221 manufacturing businesses in the United States. The actual data strongly validated the correlations between strategic purchasing, supply management, customer response, and the

financial performance of the purchasing organization. The report also included recommendations for future research and implementation in supply-chain management, based on the discovery of a positive correlation between the link of supply and purchase management and the success of manufacturing companies such as Bidco Africa. Hence, the findings of the conducted study established that those engaged in procurement and supply chain management must possess the intricate but crucial skill of establishing and maintaining robust connections with purchasers and vendors (McCathy, (2021).

On the other hand, multiple studies examining supplier connections have shown that global sourcing strategies have compelled firms to pursue more cost-effective options in order to get access to innovations, skills, and competences (Jensen & Petersen, 2018; Brandes *et al.*, 2018). Henke, Parameswaran, and Pisharodi (2019) found that businesses had enhanced performance when they recognized the impact of suppliers on their own performance and ability to achieve a competitive edge.

Thus, Bidco Africa considers the potential alignment of aims when forming a partnership with a supplier (Cox, 2021). In addition, the management of Bidco Africa is actively involved in the process, which is ongoing. The aims are intricately connected to those of the pertinent firms and are significantly shaped by the social attributes prevalent in the online community (Gordon, 2018). Organizations engage in a strategic alliance to combine their resources, as well as share the risks and rewards. A strategic partnership at Bidco Africa entails the collaboration of both the supplier and the business, where they set aside their own interests and work together towards a common goal (Christopher, 2020). Although this whole procedure at Bidco Africa demands significant time and financial resources from

the organization, it is well worthwhile as selecting suppliers of superior quality provides several benefits to the customer.

Therefore, identifying the optimal supplier at Bidco Africa involves more than just reviewing a buyer's pricing lists (Crown, 2019). Several variables, including cost, worth, dependability, and quality of service, impact the choice of a supplier for Bidco Africa. Bidco Africa assesses the significance of the aforementioned elements according to its goals and strategy. Hence, it is advantageous for Bidco Africa to possess a sound procurement strategy and understand the decision-making process of potential customers (Kamau, 2021).

Additionally, according to Kamau, (2021), Bidco Africa is dependent on trustworthy suppliers of high-quality materials and components for its operations. Thus, at Bidco Africa, the procurement department has the authority to impose additional charges on suppliers in cases where the materials they acquire are of substandard quality or if their purchases are delayed. This is applicable even if the purchase price does not fully include all the costs related to the materials and the final product (Werner, 2018). Hence, it is important to take into account all costs associated with purchases while evaluating suppliers at Bidco Africa. The expenditures incurred due to inadequate quality, delays in delivery, and other issues contribute to the overall losses, in addition to the unit price of purchased items. Hence, it is essential for Bidco Africa to evaluate the proficiency of a potential supplier prior to making a purchase commitment. Bidco Africa is responsible for evaluating the capabilities and limitations of existing suppliers, as well as the associated risks.

Ellram (2015) suggests that Bidco Africa's supplier segmentation is well-suited for establishing enduring connections inside the supply chain. Moreover, at Bidco

Africa, stratification is employed to classify suppliers according to precise criteria. This aids in comprehending the purchaser's supply chain and its crucial components. According to Ellram, (2019), it is crucial to get more comprehensive data on all the vendors which assists the buyer in classifying them. Subsequently, Bidco Africa directs its resources towards engaging with the appropriate target demographic (Tania, 2019). Through the use of an effective segmentation approach, Bidco Africa is able to discern the suppliers who provide the highest level of risk or present the most potential for opportunity to the organization. Supplier segmentation therefore has the advantage of enabling organizations to categorize their suppliers based on various attributes, requirements, and behaviors (Thomas, 2020). Bidco Africa's supply relationship management strategies hence encompass several key components including distinguishing suppliers based on specific criteria, forming teams to assess and classify suppliers, evaluating different market segments, identifying potential opportunities, negotiating and formalizing agreements, measuring performance outcomes, and analyzing suppliers' profitability and expenditures.

Hence, Kamau, (2021), maintains that the task of acquiring goods and services from outside suppliers often falls within the purview of Bidco Africa's Purchasing and Supply Management (PSM) department. PSM use many methodologies such as total cost of ownership, supplier cost structure analysis, and target costing to effectively manage and control Bidco Africa's incoming supply costs. Bidco Africa has therefore created enduring partnerships with its suppliers to ensure supply chain adaptability. Bidco Africa has also benefitted from cost savings, enhanced operational efficiency, and a competitive edge in the market due to its enduring collaboration with the supplier. Moreover, Bidco Africa's

robust buyer-supplier relationships have cultivated trust and collaboration among the company's partners, resulting in enhanced performance.

Logistics Management and Performance of Bidco Africa

According to a study conducted by Adebayo (2018), logistics management encompasses all supply chain operations involved in the movement of inputs and finished products across different operational levels within an enterprise. Adebayo (2018) further defines logistics management practices as a series of measures used by a company to guarantee effective management of logistics. Logistics management helps firms to develop effective plans that, when implemented successfully, can provide their customers a long-term competitive advantage in the market and consequently enhanced performance.

On the other hand, logistics, as defined by Brown and Herring (2023), refers to the systematic coordination of the movement of products and services from their initial location to their ultimate destination, with the aim of satisfying the needs of consumers or organizations. Their conclusion is that ensuring the prompt delivery of both inputs and outputs to the customer is crucial for the success of any efficient logistics strategy. Businesses should therefore invest in a robust logistical framework that seamlessly integrates with the other activities of the supply chain. Logistics management, as stated by Alphonse (2018), is comprehensive in nature as it aims to provide advantages to the user or client (Alphonse, 2018).

Chen and Paulraj (2020) suggest that logistics should be considered as the most suitable link between supply chain design and performance in future supply chain studies, based on their empirical research. Wisner (2023) establishes a direct relationship between logistics strategy

and organizational performance. Cooper et al. (2017) examined the relationship between superior logistics and the operational effectiveness of retail firms. Logistics is hence crucial for multinational corporations (MNCs) in the manufacturing industry as it enables effective supply chain management and improves communication with the company's key stakeholders - customers and suppliers - by ensuring smooth transportation of products and data.

According to a study conducted by Al-Shboul, (2019), concerning the correlation between logistic management strategies and operational efficiency in the road transport sector of Jordan, the research aims were accomplished by using the descriptive-analytical approach for data collection, analysis, and hypothesis testing. The statistical procedures used included the calculation of variance, standard deviation, arithmetic averages, and regression analysis. Data collection was conducted using a thirty-item questionnaire as the primary instrument. Logistic management techniques demonstrated considerable improvements in organizational performance in several areas like as inventory management, warehousing, order processing, shipping, and packaging (Al-Shboul, 2019). The findings hence suggest that Bidco Africa should provide highest importance to all aspects of logistical operations inside the company, including procurement, storage, transportation, distribution, handling, packaging, scheduling, and customer assistance (Amin, & Shahwan, 2020).

Furthermore, according to Atz (2019), the significance of logistics services, particularly transport services, is increasing for the success of organisations and operations. This need is growing as Bidco Africa's market activities develop. The rise of Bidco Africa has led to a significant transformation in the transport and logistics sector, resulting in an expansion of

its logistical value. Bidco Africa is therefore seeing rapid growth in the transport and logistics sector (Hamed, 2019).

Cooper, (2022), argues that Bidco Africa's manufacturing and shipping services effectively fulfil client requirements due to their strategic supply chain practices. The ideologies around production have undergone transformation in response to these developments. The present trend towards customized products at Bidco Africa requires the implementation of novel production and logistics techniques to avoid rising costs and competitive disadvantages (Winkelhaus & Grosse, 2020). Therefore, within the framework of integration, the logistical impacts on Bidco Africa are beginning to have a noticeable influence (Nguyen, Luong, & Hoang, 2021).

Additionally, according to Ballou, (2019), Bidco Africa has made persistent efforts to enhance its operational performance via the use of innovative management approaches (Abushaikha, Salhieh, & Towers, 2018). Thus, logistics plays a crucial role in the effective execution of supply chain management strategies at Bidco Africa. Logistics management serves as the cohesive force that binds Bidco Africa and its customers together (Fernando & Chukai, 2018). Bidco Africa maintains its competitive advantage and overall corporate success through effective logistics procedures, enabling it to achieve optimal operational performance (Mbovu & Mburu, 2018). Hence, it is essential for Bidco Africa's management to focus on integrating logistical operations management to ensure seamless coordination of all processes and activities throughout the supply chain, hence enhancing overall performance (Ballou, 2019).

Outsourcing Practices and Performance of Bidco Africa

According to Mazikana, (2023), enterprises worldwide consistently seek opportunities to reduce expenses and enhance customer service by means of outsourcing practices (Ball, Coelho & Machas, 2021). This is all done in an effort to get a competitive edge and enhance profits together with performance. As studies in the area of supply chain management started proposing that businesses should delegate some duties to third parties to enhance organizational efficiency, the theoretical idea of outsourcing gained popularity (Harris & de Chernatony, 2019). According to the American Marketing Association (2016), outsourcing is a business strategy where a firm contracts another company to handle jobs, operations, or services instead of doing them internally.

Furthermore, according to a study conducted by Elmuti, (2018), outsourcing is a business strategy that involves engaging external parties to perform work, supervise operations, or provide services on behalf of the organization (Elmuti, 2018). Outsourcing is therefore an effective method for organizations to enhance their efficiency and output. Lahrech, Alabdulwahad, and Bouayach (2020) have verified that outsourcing results in enhanced efficiency hence logical. Outsourcing also enables firms to acquire services that are often more efficient, productive, and of superior quality. Thus, an increasing number of firms are using outsourcing as a strategy to enhance productivity and reduce costs (Bickerton, 2010). Bickerton (2010) highlights that companies that engage in outsourcing often see a reduction in costs. Furthermore, a company may reduce its operating costs by using outsourcing as a tactic for managing its supply chain. Instead of producing these components themselves, corporations often get them elsewhere. Establishing a company-wide service or manufacturing department is crucial for obtaining enhanced performance (Chopra & Meindl, 2020).

A Research conducted by Shatz *et al.* (2020) on the impact of outsourcing on business performance demonstrated that outsourcing management enhances efficiency and productivity. Nyameboame and Haddud (2017) also conducted a study on the impact of outsourcing on company performance. They discovered that the majority of companies outsource various services such as transportation, IT consulting, business consulting, system infrastructure provision and maintenance, logistical services, and information technology (IT) consulting.

Therefore, the primary motivations for outsourcing include minimizing operating expenses, avoiding substantial technological investments, enhancing service delivery, gaining access to state-of-the-art technology and expertise, and intensifying concentration on core company operations. Thus, outsourcing is essential for enhancing an organization's performance.

Moreover, in their study, Morgan (2020) conducted research to ascertain the extent of outsourcing inside an organization, the challenges faced by Lafarge in implementing outsourcing strategies, and the influence of outsourcing on enhancing organizational efficiency. Morgan (2020) selected a sample of 132 individuals from Lafarge. The survey participants indicated that their organization uses information technology (IT) to facilitate cooperation with suppliers by using outsourced IT services. Moreover, it was shown that professional outsourcing is more reliable when compared to in-house services. The research study also suggested that outsourcing might provide a firm with a competitive advantage due to the elevated levels of trust and commitment it fosters.

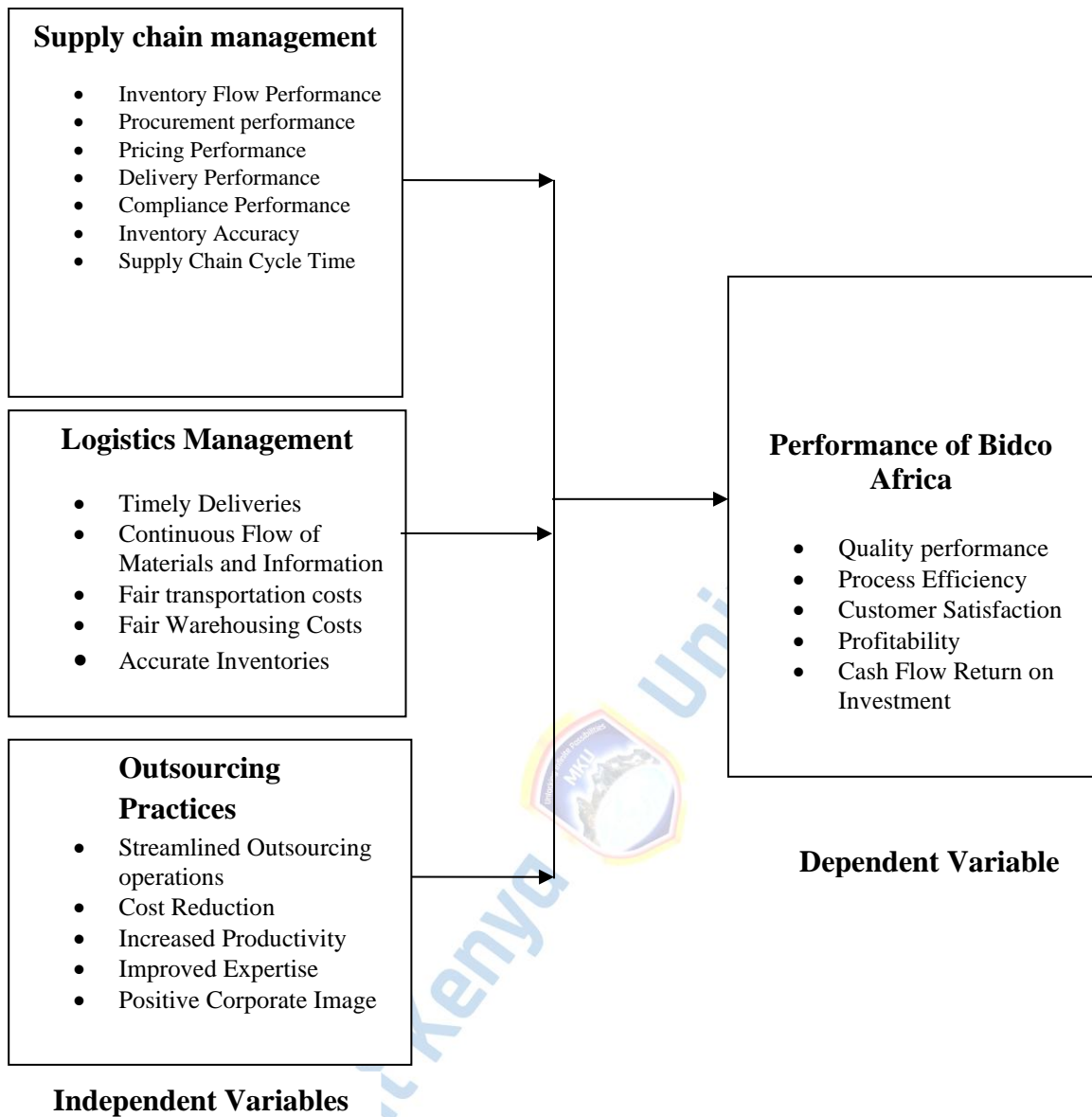
Therefore, according to Morgan (2020), Bidco Africa gains a competitive advantage through outsourcing management practices, since it has been shown to enhance efficiency and

performance. Bidco Africa assesses the effectiveness and financial viability of the service before to engaging in any outsourcing activities. Bidco Africa's primary objective is to achieve a favorable profit margin. Bidco Africa also maintains a competitive edge by outsourcing its human resources, logistics, and customer support functions, which enables the firm to achieve cost savings and get high-quality assistance from skilled professionals. Thus, with the incorporation of process-oriented outsourcing into its strategic planning, Bidco Africa successfully improved its overall profitability and performance (Morgan, 2020).

As a result, Supalak, (2020), maintains that Bidco Africa benefits from outsourcing by experiencing cost reduction, enhanced expertise, heightened productivity, a favorable corporate image, and a better comprehension of new systems and processes implemented by outsourcing firms. Collectively, these characteristics enhance Bidco Africa's performance and provide it with a significant competitive edge (Supalak, 2020).

2.4 Conceptual Framework

Orodho (2021) defines a conceptual framework as a graphical depiction, often in the form of a diagram that portrays the relationships among independent variables, and dependent variables.



Source: Bidco Africa, (2024)

Figure 1: Conceptual Framework

The above figure visually depicts the links between the variables. Thus, it depicts the autonomous aspects of the investigation, including the correlation between supply and purchase management relationship, logistics management, and outsourcing strategies. The

variables are analyzed in connection to the dependent variable of Bidco Africa's performance.

2.5 Research Gap

Regarding the effect of supply chain management practices on the performance of Bidco Africa, existing studies have generalized findings from other industries or regions to the case of Bidco Africa without considering the unique characteristics of its industry, operations, or market context (Zailani *et al.*, 2022).

Moreover, many studies have focused on traditional financial performance metrics, such as cost reduction or revenue growth, without considering broader dimensions of performance relevant to Bidco Africa, such as sustainability, resilience, or customer satisfaction (Gunasekaran, & Ngai, 2024).

Additionally, the role of supplier relationships and risk management practices in enhancing supply chain performance are under explored in the context of Bidco Africa. Thus, research could delve into how effective supplier collaboration, risk mitigation strategies, and supply chain transparency contribute to improved performance outcomes for Bidco Africa (Croom *et al.*, 2020).

As well, limited attention is given to how Bidco Africa learns from supply chain management practices, adapts to changing market dynamics, and continuously improves performance over time. Investigating the mechanisms through which Bidco Africa fosters a culture of organizational learning, innovation, and agility within its supply chain operations could therefore offer valuable insights into sustained performance improvement (Ngai *et al.*, 2022).

Therefore, addressing these research gaps provides a more nuanced understanding of the relationship between supply chain management practices and performance outcomes specific to Bidco Africa, enabling the development of targeted strategies to enhance its competitiveness and sustainability in the marketplace.



CHAPTER THREE: RESEARCH METHODOLOGY

3.1. Introduction

This chapter provided a thorough examination of the methodology and design used in the research. Furthermore, the document included sections that address various aspects such as research methodology, the target population, the sampling strategy, the instruments and techniques used for data collecting (including the pilot study), the methodologies used for data analysis, the tools and techniques used to ensure data reliability and validity, as well as ethical considerations.

3.2 Research Philosophy

In the study, Positivism, as a research philosophy, emphasized the importance of objective, observable phenomena and the use of scientific methods to uncover universal truths. In positivist studies, researchers aim to produce quantifiable and generalizable findings through rigorous methodologies such as experiments, surveys, and statistical analysis (Bryman, 2016). This approach is grounded in the belief that reality is independent of human perception and can be accurately measured through empirical evidence. For instance, a positivist study examining the relationship between employee training programs and productivity might employ controlled experiments and statistical models to identify causal relationships and predict outcomes (Saunders, Lewis, & Thornhill, 2019). By prioritizing objective measurement and replicable results, positivism seeks to contribute to a cumulative body of knowledge that can be tested and validated by other researchers, thus reinforcing its scientific credibility and practical applicability (Creswell & Creswell, 2018).

3.3 Research Design

The research design lays out the specific steps to collect data, quantify it, and analyse it in order to achieve the study's goals (Vaccari, 2019). A descriptive research design was used to carry out the study project. Descriptive research, as pointed out by Kothari (2006), aims to provide an accurate and systematic explanation of a specific population of objects, situation, or phenomenal problem in its current state. When compared to other study designs, descriptive research provides clearer answers to questions on the population's what, where, when, and how (Jung, 2019). In order to stay focused on the issue at hand and provide a clear explanation, the researcher opted to use a descriptive study design, which does not discriminate among research methodologies to analyse one or more variables. Following the lead of Kothari (2006), a qualitative method was used to elicit the thoughts and feelings of the respondents on the topic at hand. Additionally, a quantitative method was used. The quantitative method was also employed to observe effects of the study variables (Mugenda & Mugenda, 2003).

3.4 Study Population

Population refers to the sum of all the people or things that the researcher is interested in studying (Sheard, 2018). Employees of Bidco Africa were the subjects of this study. The sample included (4) information officers, (2) dispatch coordinators, (8) lead sales and distributors, (4) warehouse and logistics workers, (2) sales managers, (5) procurement officers, and (6) sales representatives.

The reason for choosing the Information Officers is because they are crucial for managing and disseminating information across the supply chain. They ensure that data flows smoothly

between different departments and external partners, which is vital for accurate decision-making and efficient operations. Dispatch Coordinators are responsible for scheduling and overseeing the dispatch of goods, ensuring that deliveries are timely and efficient. Their work directly impacts inventory management and customer satisfaction. Lead Sales and Distributors play a key role in the supply chain by managing relationships with retailers and ensuring that products reach the market effectively. Their performance influences sales volume, distribution efficiency, and market penetration.

The Warehouse and Logistics team is responsible for inventory management, storage, and the physical movement of goods. Their efficiency affects stock levels, order fulfillment, and the overall cost of logistics. Sales Managers oversee the sales strategy and execution, driving revenue growth and managing sales teams. Their strategic decisions impact supply chain dynamics, such as demand forecasting and inventory planning. Procurement Officers are responsible for sourcing raw materials and negotiating with suppliers. Their role is crucial in managing supply chain costs, quality, and supplier relationships. Sales Representatives are on the front lines, interacting directly with customers and gathering market intelligence. Their feedback and performance influence sales forecasts and inventory levels.

A total of 31 respondents were considered, which represented the entire study population. The population was arrived at by deliberately picking individuals who had a direct stake in the study. The research therefore utilized the population that was well-versed in the topic under investigation, according to Mugenda & Mugenda (2003). Since support staff may not be familiar with BIDCO Africa's supply chain processes, they were not accounted for in the research. Table 1 shows the sample individuals under study .

Table 1: Study Population

Participant Group	No. of Population
Information Officers	40
Dispatch Coordinators	20
Lead Sales and Distributors	80
Warehouse and Logistics	35
Sales Manager	15
Procurement Officers	50
Sales Representatives	60
Total	300

Source: BIDCO Africa, (2024)

3.4.1 Sample Size

According to Jung (2019), sample size is a representation of the entire study population that the researcher decides to apply in order to study the whole population. This is because it could be challenging to examine the whole community, thus researchers usually have to pick and choose which individuals to analyse. Thus, the reliability and applicability of the findings are enhanced by its level of representatives. As well, the 10% sampling approach was used to calculate the sample size. According to Mugenda & Mugenda (2013), an appropriate sample size is usually 10% of the population, with a maximum limit of 1000. In

order to reduce the likelihood of biased samples and unsatisfactory survey findings, the systematic sampling approach was used following the 10% sampling technique. Consequently, 31 respondents were chosen using the systematic sampling approach to provide a complete and impartial sample population.

Table 2 below shows the dispersion of the sample size.

$$n=10\%*N$$

$$10/100*300$$

$$n=30$$

Where;

N=Whole population

n= Sample size

Therefore, the sample size was determined to be 30 respondents

The table 2 below shows the distribution of the respondents

Table 2: Sample Size distribution

Participant Group	No. of Population
Information Officers	4
Dispatch Coordinators	2
Lead Sales and Distributors	8
Warehouse and Logistics	4
Sales Manager	1

Procurement Officers	5
Sales Representatives	6
<hr/>	
Total	30

Source: Researcher's Findings, (2024)

3.4.2 Sampling Technique

Eric and Herring (2020) state that the sampling technique is the method by which the proportion of the entire population is determined. It also refers to the procedures used by a researcher while selecting study subjects or other study components. Moreover, it is a systematic approach of developing the behaviour, set of people, or set of activities that are focused by the research. In light of this study's aims, the researcher used stratified sampling to choose respondents with relevant expertise from all the staff categories at BIDCO Africa.

3.5 Data collection Instruments

The researcher suggested using questionnaires and interviews as methods for collecting data from the field.

3.5.1 Questionnaires

According to Kothari (2004), one of the most effective ways to gather information for research is by using questionnaires. In keeping with the recommendation of Mugenda and Mugenda (2003), a questionnaire was used due to its relative low cost. The researcher designed a questionnaire with close-ended questions. There was an effort to make the

questionnaire easy to comprehend and answer by include pertinent questions in its design.

When creating the questionnaire, the following guidelines were adhered to:

- a) Questions were meticulously organised in a way that would be simple for respondents to answer.
- b) Enough space for the respondents to answer was provided.
- c) The questionnaires were made to be easily ticked.
- d) The questions were written in a consistent way by the researcher.

Four information officers, two dispatch coordinators, eight lead sales and distributors, four warehouse and logistics employees, two sales managers, five procurement officers, and six sales representatives filled out the questionnaires.

3.5.2 Interview

The respondents' opinions on the subject under study were gathered through interviews (Kothari 2004). The data was gathered from the 25 respondents who were questioned (Mugenda & Mugenda 2003). Twenty people from operational and middle management levels participated in the interview, while five people from senior management level did as well. The interviewees were hand-picked to represent each of the demographics included in the sample and to reflect the level of expertise each respondent was thought to possess on the subject.

3.6 Validity and Reliability of research Instruments

The Researcher performed tests to ascertain the validity and reliability.

3.6.1 Validity

A research study's validity is defined as its ability to precisely assess the constructs for which it was intended. Questions about the findings' validity were addressed thanks to validity (Saunders et al., 2007). In order to verify this, the researcher made sure that the participants were only asked questions that were relevant to the study's aims. Research questions, including those from interviews and questionnaires, were reviewed by monitoring and evaluation specialists to ascertain their relevance to the study's aims. On the other hand, the instruments' validity was tested using the Content Validity Index (CVI). Researchers use CVI, a method in which experts cross off topics they believe are pertinent to the research. The CVI is typically calculated by dividing the total number of items in the question by the number of things that are checked. If the CVI is less than 0.7, the validity is poor, and the instrument has to be changed (Amin, 2005). As part of this investigation, the researcher ensured that all equipment met the minimum required CVI of 0.7.

3.6.2 Reliability

Reliability is primarily concerned with the consistency of the instrument's readings when used repeatedly. The precision of the measurements obtained from the equipment is of utmost importance, and Amin (2005) presented a comprehensive explanation of how the devices consistently gauge their intended subjects. The researcher achieved this by doing preliminary testing on the instruments. Kothari (2006) and Wario and Khalfan (2015) suggested using the test-retest strategy for the questionnaire and the cognitive test method for the interview.

3.6.2.1 Test-Retest Method

A sample of twelve individuals was selected randomly to complete the questionnaire. In order to establish a link between their responses, the participants were instructed to complete the questionnaire within a two-week timeframe. The correlation coefficient was calculated by comparing responses obtained from the current questionnaire with those obtained from the previous one. Kothari (2006) states that the estimated coefficient is the determining factor for the dependability of the instrument. The calculation used the Cronbach alpha coefficient.

3.6.2.2 Cognitive Test for Interview Guide

Cognitive testing refers to the ability of interviewers to understand the questions presented to them. As stated by Wario and Khalfan (2015), the research attempts to assess the respondents' understanding of the questions and its significance. To assess the pilot group's level of understanding, eight participants were given the questions. In order to ensure the clarity of the questions, those that posed difficulty in providing answers were therefore modified.

3.7 Data Analysis

The data collected from the interviews was thoroughly reviewed and compiled. Memoid format was used for the interview transcripts, with summaries added alongside the interview responses according to each respondent's description for better understanding. Following that, thematic analysis was used to examine the verified data. Every questionnaire was double-checked to make sure it met the minimum criteria for completeness. Using SPSS Statistics version 26, the data that came from the questionnaire was computed. In order to

interpret the numerical data, the following procedures were used: Mean and standard deviation, Pearson correlation as well as Regression Analysis.

Mean and Standard Deviation

In order to conduct a descriptive analysis, measures of central tendency (means) and measures of dispersion (standard deviations) of the data were employed. By using the mean, the number of individuals who provided an average response to the key question of the survey was ascertained. The standard deviation of a dataset measured the extent to which individual values deviated from the mean, indicating the proximity of the data to the mean (Mugenda & Mugenda, 2003). The impact on BIDCO Africa's performance was shown by a low mean and a high mean.

Correlation analysis

The researcher used correlation analysis to ascertain the level of association between the variables. The correlation coefficient ranges from -1 to 1. According to Suanders and Thornhill (2007), this illustrates the robustness of the connection between the variables. When the coefficient approaches 1, it indicates a significant correlation between the variables. As the coefficient approaches -1, the link between the variables becomes weaker.

Regression

The researcher used multiple regression tests to ascertain the impact of each predictor component on the dependent variables. The model summary, Anova Test (Analysis of Variance), and regression coefficients were generated using multiple linear regressions.

The regression model used was;

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \epsilon$$

Where;

Y = Performance of Bidco Africa.

β_0 = Constant Term;

β_1 , β_2 and β_3 = Beta Coefficients;

X_1 = Supply and Purchase Management Relationship

X_2 = Logistics Management

X_3 = Outsourcing Practice

ϵ = Error term

3.9 Ethical Considerations

The study incorporated a range of citations and references to accredit the work to their respective researchers in order to uphold utmost levels of ethical conduct. Moreover, the study received approval from both the research board at Mount Kenya University and the ethics board. Prior to initiating the investigation, the researcher acquired a research license from NACOSTI. Furthermore, the participants were provided with a comprehensive explanation of the study's objectives and be accorded the opportunity to voluntarily terminate their participation in the data collection process at any point. The questionnaires were distributed to the participants in a safe setting, ensuring their confidentiality. Additionally, the participants were made aware that their responses would be treated with confidentiality. Finally, the research project was subjected to a comprehensive analysis

using Turnitin plagiarism detection software to verify the absence of any instances of copy pasted material.



CHAPTER FOUR: RESEARCH FINDINGS/RESULTS AND DISCUSSIONS

4.1 Introduction

This chapter provided a comprehensive analysis of the effect of supply chain practices on Bidco Africa's performance, using tables and bar graphs to visually display results. The study objectives were outlined, along with a review of demographic characteristics and response rate to evaluate survey validity. The chapter presented descriptive and inferential analyses, including correlation analysis and multiple regression analysis results, and ultimately concluded with a detailed explanation and interpretation of the obtained findings.

4.2 Reliability Test

Reliability refers to the extent to which a research instrument produces consistent and trustworthy results. The reliability of the study instrument was assessed using Cronbach's Alpha. Saunders et al. (2015) establishes a threshold of 0.7 or above as a standard for evaluating the reliability of a scale. The findings collected demonstrated a strong level of internal consistency for all the items used in this empirical investigation. All of the items had an alpha coefficient over 0.7, so proving their reliability.

Table 3: Reliability Test

Variable	No. of Items	Cronbachs' alpha	Verdict	Decision
Supply Chain Management	4	0.881	Reliable	Accept
Logistics Management	4	0.788	Reliable	Accept

Outsourcing Practices	4	0.891	Reliable	Accept
Organizational Performance	13	0.966	Reliable	Accept

Source: Researcher's Findings, (2024)

The Cronbach's alpha coefficients, exceeding the 0.7 threshold, were deemed reliable and appropriate for further research due to their high value. Therefore, Cronbach's alpha coefficients of 0.881, 0.788 and 0.891 and 0.966 were accepted.

4.4 Response Rate

The researcher distributed a total of 30 questionnaires to Bidco Africa employees, with 29 completed and returned for assessment, resulting in a response rate of 96.67%. This sample size for analysis is $N = 29$. Further analysis was warranted due to the satisfactory response rate, as a response rate of 50% is considered adequate, 60% is good, and 70% or above is excellent, as per Mugenda and Mugenda (2008).

The results of the response rate are shown in the table 4 presented below.

Table 4: Response rate

Questionnaire	Frequency	Percentage
Returned	29	96.67%
Not returned	1	3.33%
Interview	Frequency	Percentage

Respondents Interviewed	30	100%
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Source: Researcher's Findings, (2024)

4.5 Demographic Analysis

This subsection summarizes the demographic characteristics of the respondents, including gender, age, and educational level. Gender distribution was examined to ensure a balanced representation of males and females and to avoid gender bias. Age distribution was assessed to verify the participation of various age groups in the study. Educational level was considered to evaluate the respondents' ability to effectively answer the questions in the questionnaire. The findings are presented in Table 5 below.

Table 5: Demographic Characteristics

Item	Frequency	Percentage (%)	Cumulative (%)
Gender			
Male	18	63	63
Female	11	37	100
Age			
20-30 Years	9	30	30
31-40 Years	10	34	64

41-50 Years	7	23	87
51 and Above Years	3	13	100
Level of Education			
Certificate	4	14	14
Diploma	6	21	35
University Degree	12	41	76
Postgraduate	5	16	92
Other	2	8	100

Source: Researcher's Findings, (2024)

The study achieved a balanced gender distribution, with 63% of respondents identifying as male and 37% as female, as depicted in the pie chart, reflecting a reasonable representation of 30% females in the analysis. The majority of respondents were of legal age and mature, with 30% falling in the 20-30 age range, 34% in the 31-40 range, 23% in the 41-50 range, and 13% over 51 years old. This distribution ensured that the responses were both valid and pertinent to the research. Educationally, 14% of participants held a certificate, 21% had a diploma, 41% possessed a university degree, 16% had postgraduate qualifications, and 8% had other forms of education. This diverse educational background indicates that the participants were well-informed and capable of contributing valuable insights during the data collection process.

4.6 Descriptive Analysis

4.6.1 Supply Chain Management and Performance of Bidco Africa

The study evaluated the impact of Supply Chain Management on Bidco Africa's performance using a Likert scale, with 5 being "Strongly Agree," 4 being "Agree," 3 being "Neutral," 2 being "Disagree," and 1 being "Strongly Disagree."

Table 6: Effect of Supply Chain Management on Performance of Bidco Africa

Supply Chain Management Statements	SA	A	N	D	SD	Mean	Std. Deviation
	%	%	%	%	%		
There is an improved procurement performance due to an effective supply and purchase management at Bidco Africa.	38	37	25	0	0	4.22	1.03
There is an improved inventory flow performance due to an effective supply and purchase management at Bidco Africa	43	29	15	8	5	4.35	0.26

There is an improved pricing performance due to an effective supply and purchase management at Bidco Africa.	49	25	15	7	4	4.38	0.17
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There is an improved delivery performance due to an effective supply and purchase management at Bidco Africa.	45	33	13	9	0	4.57	0.13
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There is an improved compliance performance due to an effective supply and purchase management at Bidco Africa.	33	37	17	7	6	4.01	0.58
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The findings reveal that a significant majority of participants (75%) strongly agreed or agreed that there is an improved procurement performance due to an effective supply and purchase management at Bidco Africa. This was supported by a mean value of 4.22 and a standard deviation of 1.03. Similarly, 72% of respondents strongly agreed or agreed that there is an improved inventory flow performance due to an effective supply and purchase management at Bidco Africa, with a reported mean of 4.35 and a standard deviation of 0.26.

Furthermore, 74% of participants strongly agreed or agreed that there is an improved pricing performance due to an effective supply and purchase management at Bidco Africa, supported by a mean score of 4.38 and a standard deviation of 0.17. As well, 78% of participants strongly agreed or agreed that there is an improved delivery performance due to an effective supply and purchase management at Bidco Africa, supported by a mean score of 4.57 and a standard deviation of 0.13. Lastly, 70% of respondents strongly agreed or agreed that there is an improved compliance performance due to an effective supply and purchase management at Bidco Africa, with a mean score of 4.01 and a standard deviation of 0.58, indicating a consistent view among respondents. The study's findings confirm that supply chain management significantly impacts the performance of Bidco Africa.

4.6.2 Logistics Management and Performance of Bidco Africa

Effect of Logistics Management on Performance of Bidco Africa. The results were calculated, analyzed, and are presented in the table below.

Table 7: Effect of Logistics Management on Performance of Bidco Africa

Logistics Management	SA	A	N	D	SD	Mean	Std.
Statements	%	%	%	%	%		Deviation
There is timely delivery of products due to an effective logistics management at Bidco Africa.	41	29	22	5	3	4.11	0.66

There is continuous flow of materials due to an effective logistics management at Bidco Africa.	35	40	18	7	0	4.20	0.43
There are fair transportation costs due to an effective logistics management at Bidco Africa.	46	32	19	3	0	4.21	0.51
There are fair warehousing costs due to an effective logistics management at Bidco Africa.	37	39	20	4	0	4.09	0.78
There are accurate inventories due to an effective logistics management at Bidco Africa.	42	36	19	3	0	4.38	0.21

The results from the table above revealed that a significant majority of participants (70%) strongly agreed or agreed that there is timely delivery of products due to an effective logistics management at Bidco Africa. This was supported by a mean value of 4.11 and a standard deviation of 0.66. Similarly, 75% of respondents strongly agreed or agreed that there is

continuous flow of materials due to an effective logistics management at Bidco Africa, with a reported mean of 4.20 and a standard deviation of 0.43. Furthermore, 78% of participants strongly agreed or agreed that there are fair transportation costs due to an effective logistics management at Bidco Africa, supported by a mean score of 4.09 and a standard deviation of 0.78. Further, 76% of participants strongly agreed or agreed that there are fair warehousing costs due to an effective logistics management at Bidco Africa, supported by a mean score of 4.09 and a standard deviation of 0.78. Ultimately, 78% of respondents strongly agreed or agreed that there are accurate inventories due to an effective logistics management at Bidco Africa, with a mean score of 4.38 and a standard deviation of 0.21, indicating a consistent view among respondents. The study's findings confirm that logistics management significantly impacts the performance of Bidco Africa.

4.6.3 Outsourcing Practices and Performance of Bidco Africa

Effect of Outsourcing Practices on Performance of Bidco Africa. The results were calculated, analyzed and presented in the table below

Table 8: Effect of Outsourcing Practices on Performance of Bidco Africa

Outsourcing Practices	SA	A	N	D	SD	Mean	Std.
Statements	%	%	%	%	%		Deviation
There are streamlined outsourcing operations due to effective outsourcing practices at Bidco Africa.	38	35	24	4	2	4.14	0.78

There is an outsourcing cost reduction due to effective outsourcing practices at Bidco Africa.	44	41	11	4	0	4.67	0.22
There is increased productivity due to effective outsourcing practices at Bidco Africa.	47	38	13	5	0	4.26	0.61
There is improved outsourcing expertise due to effective outsourcing practices at Bidco Africa.	41	28	22	9	0	4.41	0.39
A positive corporate image is developed due to effective outsourcing practices at Bidco Africa.	38	42	17	3	0	4.27	0.54

The results from the table above revealed that a significant majority of participants (73%) strongly agreed or agreed that there are streamlined outsourcing operations due to effective outsourcing practices at Bidco Africa. This was supported by a mean value of 4.14 and a standard deviation of 0.78. Similarly, 85% of respondents strongly agreed or agreed that there is an outsourcing cost reduction due to effective outsourcing practices at Bidco Africa,

with a reported mean of 4.67 and a standard deviation of 0.22. Likewise, 85% of participants strongly agreed or agreed that there is increased productivity due to effective outsourcing practices at Bidco Africa, supported by a mean score of 4.26 and a standard deviation of 0.61. Moreover, 69% of participants strongly agreed or agreed that there is improved outsourcing expertise due to effective outsourcing practices at Bidco Africa, supported by a mean score of 4.41 and a standard deviation of 0.39. Ultimately, 80% of respondents strongly agreed or agreed that a positive corporate image is developed due to effective outsourcing practices at Bidco Africa, with a mean score of 4.27 and a standard deviation of 0.54, indicating a consistent view among respondents. The study's findings confirm that outsourcing practices significantly impacts the performance of Bidco Africa.

4.7 Inferential Analysis

The study employed inferential analysis which is a statistical approach used to draw conclusions about a population based on a sample of data. Inferential analysis aims to make predictions or generalizations about a larger group by analyzing sample data. This involves applying various statistical techniques such as correlation and regression analysis to estimate population parameters, test hypotheses, and assess relationships between variables. By interpreting the results of inferential analysis, researchers and analysts are able to make informed decisions and provide insights that extend beyond the immediate data at hand.

4.7.1 Correlation Analysis

The study aimed to determine the correlation between the independent and dependent variables. The Pearson product moment correlation coefficient was used, and the results are shown in the table below.

4.7.1.1 Supply Chain Management and Performance of Bidco Africa

The study investigated the presence of a substantial correlation between Supply Chain Management and the performance of Bidco Africa. The results are shown below.

Table 9: Correlation between Supply Chain Management and Performance of Bidco Africa

		Supply Chain Management	Performance of Bidco Africa
Supply Chain Management	Pearson Correlation	1	.846**
	Sig. (2-tailed)		.000
	N	29	29
Performance of Bidco Africa	Pearson Correlation	.846**	1
	Sig. (2-tailed)	.000	
	N	29	29

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

Source: Researcher's Findings, (2024)

The results shown in table 8 demonstrate a substantial positive correlation between Supply Chain Management and the Performance of Bidco Africa. The obtained correlation coefficient was 0.846, which was found to be statistically significant at the $p < 0.01$ threshold of significance. This demonstrates that Supply Chain Management plays a crucial role in the

overall performance of Bidco Africa. Therefore, the efficient accessibility of Supply Chain Management improves the overall performance of Bidco Africa.

According to Odhiambo and Karanja (2022), Bidco Africa's strategic SCM initiatives, including robust supplier relationships and optimized logistics, have been instrumental in driving its operational success and market growth. Additionally, Muthoni (2023) emphasizes that Bidco's emphasis on SCM has facilitated better inventory management and responsiveness to market demands, contributing to improved financial performance and customer satisfaction. Thus, the integration of sophisticated SCM practices is pivotal to Bidco Africa's ability to maintain a competitive edge and achieve sustainable business success.

4.7.1.2 Logistics Management and Performance of Bidco Africa

The study investigated the presence of a substantial correlation between Logistics Management and the Performance of Bidco Africa. The results are shown below.

Table 10: Correlation between Logistics Management and Performance of Bidco Africa

		Logistics Management	Performance of Bidco Africa
Logistics Management	Pearson Correlation	1	.762**
	Sig. (2-tailed)		.000
	N	29	29
	Pearson Correlation	.762**	1

Performance of	Sig. (2-tailed)	.000	
Bidco Africa	N	29	29

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

Source: Researcher’s Findings, (2024)

The results shown in table 9 above indicate a statistically significant positive link between Logistics Management and the Performance of Bidco Africa. The resulting correlation coefficient was 0.762, which was considered statistically significant at the $p < 0.01$ level of significance. This demonstrates that Logistics Management plays a vital role in the overall performance of Bidco Africa. The sufficient availability of Logistics Management directly contributes to the enhancement of Bidco Africa's performance.

According to Muturi and Wanjiku (2023), Bidco's focus on streamlining logistics operations, including transportation and warehousing, has significantly contributed to its improved supply chain efficiency and market responsiveness. Furthermore, Kibet (2022) highlights that the company's investment in logistics technology and infrastructure has facilitated better coordination and reduced lead times, leading to higher customer satisfaction and increased market share. Therefore, robust logistics management is a key driver of Bidco Africa’s success, underpinning its ability to maintain a competitive advantage and achieve sustainable growth.

4.7.1.3 Outsourcing Practices and Performance of Bidco Africa

The study investigated if there was a substantial correlation between the outsourcing practices and the performance of Bidco Africa. The results are shown below.

Table 11: Correlation of Outsourcing Practices and Performance of Bidco Africa

		Outsourcing Practices	Performance of Bidco Africa
Outsourcing Practices	Pearson Correlation	1	.769**
	Sig. (2-tailed)		.000
	N	29	29
Performance of Bidco Africa	Pearson Correlation	.769**	1
	Sig. (2-tailed)	.000	
	N	29	29

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

Source: Researcher’s Findings, (2024)

The results shown in table 10 above demonstrate a statistically significant positive correlation between Outsourcing Practices and the Performance of Bidco Africa. The obtained correlation coefficient was 0.769, which was determined to be statistically significant at the $p < 0.01$ threshold of significance. This indicates that the use of outsourcing practices is a significant factor in determining the performance of Bidco Africa. Consequently, the adequate availability of Outsourcing Practices results in an enhanced performance of Bidco Africa.

According to Ndegwa and Chege (2023), Bidco's outsourcing strategy has led to cost reductions, access to specialized expertise, and improved service delivery, which

collectively bolster organizational performance. Additionally, Karanja (2022) observes that by outsourcing certain operational processes, Bidco Africa has been able to achieve greater flexibility and scalability, thus better responding to market dynamics and consumer demands. Therefore, effective outsourcing practices are integral to Bidco Africa's ability to enhance its operational capabilities and sustain competitive advantage.

The correlation analysis revealed that the coefficients for the relationship between Supply Chain Management, Logistics Management, and Outsourcing Practices were all robust, namely 0.846, 0.762, and 0.769, respectively.

In accordance with the obtained findings above, a study by Melnyk, VanHoek, and Hazen (2021) found a strong positive relationship between advanced SCM practices and operational performance, including improved efficiency and reduced costs. This is supported by research from Li, Rao, and Ragu-Nathan (2020), which highlights that effective SCM strategies lead to higher customer satisfaction and increased profitability by optimizing inventory management and logistics operations. Additionally, a meta-analysis by Stank, Keller, and Closs (2019) reveals that SCM practices significantly contribute to competitive advantage and organizational success, particularly when firms adopt integrated supply chain solutions and foster strong supplier relationships. These studies collectively affirm that robust SCM practices are essential for achieving superior performance and gaining a competitive edge in today's dynamic market environment.

A study by Christopher and Peck (2020) reveals that firms with optimized logistics processes experience significant gains in service levels and cost reductions, driven by better inventory management and streamlined distribution networks. Similarly, research by Kumar and

Shankar (2021) highlights that advanced logistics practices, including technology integration and efficient transportation management, lead to higher customer satisfaction and competitive advantage. Furthermore, a meta-analysis by Hohenstein, Feisel, and Hartmann (2019) confirms that robust logistics management practices are positively correlated with overall organizational performance, emphasizing the importance of logistical efficiency in achieving strategic business objectives. These findings collectively affirm that effective logistics management is crucial for sustaining and enhancing organizational performance.

A study by Espino-Rodríguez and Padrón-Robaina (2019) found that firms leveraging outsourcing to externalize non-core functions achieved notable reductions in operational costs and improved service quality, thereby enhancing overall performance. Similarly, research by Lacity and Willcocks (2021) highlights that strategic outsourcing contributes to superior organizational performance by allowing firms to focus on core activities while benefiting from specialized external expertise. Additionally, a meta-analysis by Kremic, Tukel, and Rom (2020) confirmed that effective management of outsourcing relationships and contracts is crucial for realizing performance benefits, such as increased flexibility and innovation. These studies collectively affirm that strategic and well-managed outsourcing practices are positively correlated with enhanced organizational performance.

4.7.2 Regression Analysis

Key assumptions were considered in the regression analysis such as MultiCollinearity test, autocorrelation and normality tests.

4.7.2.1 MultiCollinearity test

According to Stock, and Watson, (2019), multicollinearity test is a statistical method designed to identify high correlations among independent variables in a regression model. Stock, and Watson, (2019), further posit that multicollinearity arises when predictor variables are strongly correlated with each other, complicating the assessment of their individual impacts on the dependent variable. This situation can result in unstable regression coefficients, inflated standard errors, and unreliable inferences (Stock, & Watson, 2019). Common tests for multicollinearity involve metrics such as the Variance Inflation Factor (VIF) or the Condition Index. Elevated values in these metrics signal potential multicollinearity problems, suggesting the need to eliminate or combine certain predictor variables to enhance the model's accuracy and interpretability (Stock, & Watson, 2019).

Table 12: Results of Multicollinearity Test

Model	Collinearity Statistics	
	VIF	Tolerance
Supply Chain Management	0.058	.939
Logistics Management	1.748	.778
Outsourcing Practices	1.771	.538

a. Dependent: Organizational Performance

Source: Researcher's Findings, (2024)

The VIF values presented in the table 12, which range from 1 to 10, indicate that there is no evidence of multicollinearity in the data. Consequently, regression analysis is selected as the appropriate method.

4.7.2.2 Autocorrelation

Autocorrelation, or serial correlation, is a statistical metric that measures how the current value of a variable relates to its past values over time. It examines the connection between observations in a time series at various time lags, essentially evaluating how well future values of the series can be forecasted based on past values. A high level of autocorrelation suggests that the series follows a consistent pattern or trend, while low autocorrelation indicates greater independence between values. This concept is widely used in time series analysis to identify patterns or trends and to validate the assumptions underlying statistical models.

Autocorrelation was assessed using the Durbin-Watson statistic, and the results are summarized in the table below.

Table 13: Result of Autocorrelation test

Model	Durbin-Watson
1	1.682 ^a

a.Predictors:(Constant), Supply Chain Management, Logistics Management, Outsourcing Practices

b.Variable-Dependant : Organizational Performance

Source: Researcher’s Findings, (2024)

The Durbin-Watson statistic is approximately 1.682, which is close to 2. This suggests that the dataset exhibits minimal serial correlation, making it suitable for both correlation and regression analysis.

4.7.2.3 Normality Test

A normality test is a statistical method employed to assess whether a dataset adheres to a normal distribution, a key assumption for numerous parametric statistical analyses. These tests evaluate whether the data aligns with the bell-shaped curve of a normal distribution, where the mean, median, and mode are identical, and the data is symmetrically distributed around the mean.

Table14: Results of Normality Test

	N	Skewness		Kurtosis	
		Statistic	Std.Error	Statistic	Std.Error
Organizational Performance	29	.2670	.3400	-.6400	.6680
Supply Chain Management	29	.3630	.3400	7.885	.6680

Logistics Management	29	.1110	.3400	.5320	.6680
Outsourcing Practices	29	.1100	.3400	-1.625	.6680
Valid N (listwise)	29				

Source: Researcher's Findings, (2024)

Skewness and kurtosis statistics were utilized to assess normality. A dataset is considered to exhibit a normal distribution if the skewness falls between -0.8 and +0.8, and the kurtosis ranges from -3 to +3.

As well, the study used multiple linear regression analysis to examine the relationship between Performance and Supply Chain Management, Logistics Management, and Outsourcing Practices. The analysis consisted of three components: Model Summary, Analysis of Variance (ANOVA), and Regression Coefficients. The study achieved a 95% confidence level with a significance threshold of $\alpha = 0.05$. The Model Summary assessed the strength of the correlation and provided insights into the proportion of observed variance in the dependent variable.

4.7.2.4 Model Summary

The Model Summary provided a comprehensive analysis of the intricate relationship between the dependent and independent variables, enabling a thorough evaluation of the

correlation and the extent to which the independent variables explained the dependent variable's variance.

Table 15: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.892 ^a	0.796	0.791	1.073

a. Predictors: (Constant), Supply Chain Management, Logistics Management and Outsourcing Practices

Source: Researcher's Findings, (2024)

The study found a strong and significant relationship between independent and dependent variables, with the independent variables accounting for 79.6% of the variation in the dependent variable. The adjusted R² value of 0.791 confirms that 79.1% of the variation is explained by the independent variables, indicating a robust model fit.

4.7.2.5 Analysis of Variance (ANOVA^b)

The table below displays the results of the Analysis of Variance (ANOVA).

Table 16: Analysis of Variance (ANOVA^b)

ANOVA^b

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	734.11	4	183.528	92.821	.000 ^a

Residual	187.83	95	1.9772
Total	921.94	99	

a. Predictors: (Constant), Supply Chain Management, Logistics Management and Outsourcing Practices

b. Dependent Variable: Performance of Bidco Africa

Source: Researcher's Findings, (2024)

The findings indicated a significant correlation between the independent and dependent variables, with an F-value of 92.821, degrees of freedom $df = 4, 95, 99$, and a p-value < 0.05 . The Analysis of Variance (ANOVA) results supported the research hypothesis by demonstrating that all independent variables had a substantial impact on the dependent variable.

4.7.2.6 Regression Coefficients

The regression coefficient was used to assess the significance of the independent variables in the model.

Table 17: Regression Coefficients^a

	Unstandardized		Standardized		t	Sig.
	Coefficients		Coefficients			
	Beta	Std. Error	Beta			
(Constant)	1.319	.352			3.447	.000
Supply Chain Management	.634	.214	.591		2.963	.003
Logistics Management	.793	.317	.648		2.502	.013
Outsourcing Practices	.608	.271	.575		2.244	.021

a. Dependent Variable: Performance of Bidco Africa

Source: Researcher's Findings, (2024)

Regression Equation;

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$$

Resulting Regression Model;

$$Y = 1.319 + 0.634X_1 + 0.793X_2 + 0.608X_3 + \varepsilon$$

Where;

Y = Performance of Bidco Africa

X_1 = Supply Chain Management

X_2 = Logistics Management

X_3 = Outsourcing Practices

ϵ =Error term

According to the regression equation, holding Supply Chain Management, Logistics Management, and Outsourcing Practices at zero, the performance would be 1.319 units.

Additionally, a one-unit increase in:

Supply Chain Management would lead to a performance increase of 0.634 units.

Logistics Management would result in a performance increase of 0.793 units.

Outsourcing Practices would cause a performance increase of 0.608 units.

4.8 Interpretation and Discussion of Findings

4.8.1 Supply Chain Management and Performance of Bidco Africa

The study found that Supply Chain Management positively and significantly impacted Bidco Africa's performance, with a coefficient of 0.634 and a significance value of 0.003, below the 0.05 threshold, indicating that a one-unit increase in Supply Chain Management leads to a 0.634-unit increase in performance.

These findings are consistent with a study conducted by Cheng and Li (2019), which demonstrated that firms with advanced SCM practices experience improved operational efficiency and financial performance, attributing these gains to enhanced inventory

management and streamlined logistics processes. Similarly, a meta-analysis by Zheng, Wu, and Geng (2021) revealed that effective SCM practices positively correlate with higher customer satisfaction and competitive advantage, underscoring the importance of integrating supply chain strategies with business objectives. Furthermore, research by Huo et al. (2020) indicated that firms implementing robust SCM systems experience reduced costs and increased profitability, primarily due to better demand forecasting and supplier coordination. These findings collectively emphasize the crucial role of SCM in driving superior business outcomes across various industries.

4.8.2 Logistics Management and Performance of Bidco Africa

The study revealed that the implementation of Logistics Management significantly improved Bidco Africa's performance, with a coefficient of 0.793 and a significance level of 0.013, indicating that a one-unit increase in Logistics Management leads to a 0.793-unit increase in Bidco Africa's performance.

These findings align with research conducted by Gathenya, Namusonge, and Mungai (2020), which highlights that Bidco Africa's adoption of advanced logistics technologies and streamlined supply chain processes has led to significant improvements in inventory management and distribution efficiency. These advancements have enabled the company to reduce lead times and operational costs while increasing customer satisfaction and market competitiveness. Additionally, a study by Mwaura, Muturi, and Kinyua (2021) emphasizes that Bidco Africa's investment in logistics infrastructure, including state-of-the-art warehousing and transportation systems, has been instrumental in optimizing its supply chain and achieving better financial performance. Thus, Bidco Africa's strategic focus on

logistics management is a key factor in its continued success and growth in the competitive African market.

4.8.3 Outsourcing Practices and Performance of Bidco Africa

The study found that Outsourcing Practices significantly impacted Bidco Africa's performance, with a coefficient of 0.608 and a significance level of 0.021, which is below the 0.05 threshold, indicating that a one-unit increase in Outsourcing Practices leads to a 0.608-unit increase in Bidco Africa's performance.

These findings are consistent with empirical evidence gathered by Jiang and Qureshi (2020), which found out that firms employing outsourcing strategies experience improved operational efficiency and cost reduction, attributing these benefits to specialized service providers who enhance focus on core competencies and streamline non-core activities. Similarly, a study by Vining and Globerman (2021) revealed that strategic outsourcing positively impacts financial performance and flexibility, as organizations can leverage external expertise and adapt more swiftly to market changes. Moreover, a meta-analysis by Lacity, Willcocks, and Rottman (2019) demonstrated that successful outsourcing relationships contribute to enhanced service quality and innovation, provided that there is effective management of vendor relationships and clear contractual agreements. These findings underscore the importance of well-structured outsourcing practices in driving superior performance and competitive advantage.

4.9 Qualitative Analysis

The qualitative analysis was analyzed thematically.

Interview of Question One: analysis of interview on the supply chain management practices

The first theme that emanated was the respondents' understanding of the supply chain management practices of Bidco Africa. Following is a summary of respondents' understanding regarding the supply chain management practices at Bidco Africa. The information is based on survey responses gathered from a diverse group of stakeholders, including information officers, dispatch coordinators, lead sales and distributors, warehouse and logistics workers, sales managers, procurement officers, and sales representatives.

Respondent A1 Said:

" There are ongoing concerns about Bidco Africa's supply chain transparency. The lack of clear visibility into their sourcing and production processes raises questions about ethical practices and the true origin of their raw materials."

This comment therefore points to potential issues regarding transparency and ethical sourcing in Bidco Africa's supply chain.

As well, Respondent A2 Said:

" Despite the company's large-scale operations, Bidco Africa has faced criticisms over inefficiencies in their supply chain due to frequent delays in distribution and occasional shortages in product availability, which affect the overall market performance."

This comment therefore underscores concerns about operational inefficiencies and their impact on product availability.

Alternatively, Respondent A3 and A4 Said:

" Bidco Africa's reliance on a limited number of suppliers has been problematic. Any disruption with these suppliers can lead to significant challenges in maintaining a consistent supply of products, which impacts their ability to meet market demand."

Thus, this observation highlights the risks associated with relying heavily on a few key suppliers.

On the other hand, Respondent A5 Said:

" The company's supply chain management practices have been criticized for not sufficiently addressing labor issues. There have been reports of poor working conditions and inadequate labor practices within their supply chain network."

Hence, this statement points to concerns regarding labor conditions within Bidco Africa's supply chain operations."

However, Respondent A6 said:

" Bidco Africa's commitment to local sourcing and production is commendable. Their supply chain strategy integrates local suppliers which not only supports regional economies but also ensures a steady and reliable source of raw materials."

Thus, this statement highlights Bidco's dedication to strengthening local supply chains and supporting regional economic development.

As well, Respondent A8 Posited:

"The company has implemented robust logistics and distribution networks that have enhanced efficiency. The ability to quickly adapt to market demands through agile supply chain practices is thus impressive."

Thus, this quote acknowledges Bidco Africa's effective logistics and their responsiveness to changing market conditions.

Overall, these respondents comprising of lead sales and distributors, warehouse and logistics workers, sales managers, procurement officers, and sales representatives acknowledge that Bidco Africa's supply chain management practices exhibit both strengths and weaknesses. On the positive side, the company's efforts in local sourcing, logistical efficiency, and sustainability are noteworthy. However, issues related to transparency, operational inefficiencies, supplier dependency, and labor conditions present significant challenges. Addressing these negative aspects could further enhance Bidco Africa's supply chain effectiveness and overall corporate reputation.

Interview of Question 2: Summary of respondents' perceptions and understanding of the key supply chain management practices employed by Bidco Africa.

Respondent B2 and B5 Implied that:

"Bidco Africa's supply chain is occasionally disrupted by unforeseen logistical challenges, leading to delays and inconsistent product availability." "These disruptions therefore affect customer satisfaction and disrupt the smooth flow of operations."

As well, Respondents B5, B6, B7 and B13 said that:

“The Bidco Africa’s supply chain management practices incur high operational costs, which impacts its overall profitability hence becoming a significant burden, particularly in a competitive market where cost efficiency is crucial.”

“There is a gap in Bidco Africa's risk management strategies, leaving the supply chain vulnerable to external shocks and market volatility”

“Bidco Africa’s supply chain shows limited diversity in its supplier base, which pose risks in terms of supply chain reliability and innovation.” “Consequently, a lack of diversity leads to over-reliance on a few suppliers, which affects the flexibility and robustness of the supply chain.”

However, Respondents B15 and B17 said that

“Bidco Africa has established strong, collaborative relationships with its suppliers, which significantly enhances supply chain resilience.” “Thus, these relationships are fundamental in creating a responsive and adaptable supply chain that can weather market fluctuations.”

Furthermore, Respondents A12 said:

“Bidco Africa has shown a commendable commitment to sustainability in its supply chain practices, focusing on reducing carbon footprint and implementing eco-friendly processes.”

“This commitment not only enhances the company's reputation but also aligns with global sustainability goals”

Thus, the respondents acknowledged that Bidco Africa’s supply chain management practices exhibit both strengths and weaknesses. On the positive side, the company benefits from efficient logistics operations, strong supplier relationships, advanced technology integration,

and a commitment to sustainability. However, challenges such as supply chain disruptions, high operational costs, inadequate risk management, and limited supplier diversity present significant areas for improvement. Addressing these issues while leveraging existing strengths could further enhance Bidco Africa's supply chain effectiveness and overall business performance.

Interview of Question 3: Summary of respondents' perceptions and understanding of the ways in which supply chain management affect the performance of Bidco Africa.

Respondent C3 Said that:

“Bidco Africa's supply chain is prone to frequent disruptions, which adversely affect production schedules and lead to delays in product availability. These disruptions lead to operational inefficiencies and negatively impact the company's ability to meet customer demands.”

Respondent C5 postulated that:

“The high costs associated with maintaining Bidco Africa's supply chain infrastructure have put a strain on its profitability. Rising operational expenses have therefore eroded profit margins and affected the company's overall financial health.”

Respondent C4 Said that:

“Bidco Africa's supply chain management is often vulnerable to market fluctuations, impacting its ability to maintain steady production and pricing strategies. This vulnerability leads to instability in supply and pricing, affecting the company's market performance.”

“There have been concerns about inconsistent quality control within Bidco Africa's supply chain, leading to variable product quality and customer dissatisfaction.”

Nevertheless, Respondent C7, B10 and B12 said:

“Bidco Africa’s streamlined supply chain processes have significantly boosted operational efficiency, reducing lead times and improving production schedules” This efficiency contributes to a smoother production process and faster delivery of products to the market.”

“Bidco Africa’s robust supply chain management ensures that products are consistently available to meet consumer demand, leading to higher customer satisfaction levels.”

“By adopting advanced supply chain technologies, Bidco Africa has strengthened its market position, enabling it to respond swiftly to market changes and competition. Technological advancements in the supply chain therefore contribute to agility and a competitive edge in the market.”

Hence, these respondents comprising of sales managers, procurement officers, and sales representatives posit that Bidco Africa’s supply chain management practices have both positive and negative impacts on its performance. On the positive side, efficient operations, improved customer satisfaction, optimized inventory management, and strengthened market positioning contribute to the company’s success. However, challenges such as frequent supply chain disruptions, escalating operational costs, vulnerability to market fluctuations, and inconsistent quality control present significant obstacles. Addressing these challenges while leveraging strengths in supply chain management will be crucial for enhancing Bidco Africa’s overall performance and sustaining its competitive advantage in the industry.

Interview of Question 4: Summary of respondents' perceptions and understanding of how Bidco Africa optimizes its supply chain to enhance performance.

Respondent D4 Said that:

“While Bidco Africa has invested in advanced technologies, the inconsistent implementation across different regions has led to uneven improvements in supply chain efficiency. Inconsistent technology deployment results in varying levels of efficiency and effectiveness within the supply chain.”

Respondent D2 Said that:

“The cost of implementing and maintaining advanced supply chain optimization strategies has been substantial, which has put financial pressure on the company. High costs associated with optimization impact overall profitability and financial stability.”

“Bidco Africa’s supply chain optimization efforts have not fully addressed the issue of frequent disruptions caused by external factors, leading to occasional delays and inefficiencies. Persistent disruptions undermine the benefits of optimization efforts and affect operational performance.”

“The focus on optimizing supply chain processes has sometimes resulted in a rigid structure that lacks flexibility, making it difficult for Bidco Africa to adapt quickly to market changes. Limited flexibility has therefore hindered the company's ability to respond to new opportunities or unexpected challenges.”

However, Respondents C5 and C13 Postulated that:

“Bidco Africa has made significant strides in integrating advanced technologies such as real-time tracking systems and automated inventory management, which have streamlined operations and enhanced overall efficiency. This integration helps in improving visibility and control over the supply chain, leading to more informed decision-making.”

“Bidco Africa's efforts to build strong, strategic relationships with key suppliers have fostered better collaboration and more reliable supply chains, contributing to smoother operations. Thus, effective supplier relationships have enhanced supply chain resilience and reliability.”

Thus, these respondents comprising of lead sales and distributors, warehouse and logistics workers, and sales representatives generally say that Bidco Africa’s approach to supply chain optimization has yielded several benefits, including the integration of advanced technology, efficient inventory management, strengthened supplier relationships, and sustainability initiatives. These practices have contributed to improved operational efficiency and enhanced performance. However, challenges such as inconsistent technology implementation, high costs, frequent supply chain disruptions, and limited flexibility present significant obstacles. Addressing these challenges while building on existing strengths will be essential for Bidco Africa to achieve continued success and maintain a competitive edge in the market.

Interview of Question 5: Summary of respondents’ perceptions and understanding of some of the ways that logistics management has impacted Bidco Africa's performance.

Respondent E4 Said that:

“Bidco Africa has struggled with frequent disruptions in its logistics operations, including delays and supply chain interruptions that impact overall performance. Frequent disruptions have therefore led to inconsistent service levels and affected customer satisfaction.”

Respondent E2 Postulated that:

“Bidco Africa faces high transportation costs due to inefficiencies in its logistics management, which has a considerable impact on its profitability. Thus, high transportation costs have eroded profit margins and strained financial resources.”

“Bidco Africa’s logistics management struggles with complex supply chain coordination issues, leading to occasional misalignment between supply and demand.”

“Bidco Africa’s logistics operations exhibit limited flexibility, making it challenging to adapt quickly to changing market conditions and customer needs. Limited flexibility has therefore hindered the company’s ability to respond to market dynamics and customer demands effectively

However, Respondents E4 and B15 highlighted that:

“Bidco Africa’s logistics management has significantly improved delivery timeliness, with products reaching markets faster than before.”

“Bidco Africa’s logistics team has effectively implemented inventory control measures that have minimized stockouts and reduced excess inventory.”

Therefore, these respondents including dispatch coordinators, warehouse and logistics workers, sales managers, procurement officers, and sales representatives acknowledge that

Bidco Africa's logistics management has had a significant impact on its performance, both positively and negatively. On the positive side, improvements in delivery timeliness, and enhanced inventory control have contributed to better overall performance. However, challenges such as frequent logistics disruptions, high transportation costs, complex supply chain coordination, and limited operational flexibility highlight areas where the company must focus on improving. Addressing these issues while building on its strengths will be crucial for Bidco Africa to enhance its logistics management and sustain its competitive advantage in the market.

Interview of Question 6: Summary of respondents' perceptions and understanding of some of the ways outsourcing impacted Bidco Africa's performance.

Respondent D7 Said:

“Bidco Africa has faced significant quality control problems due to outsourcing, with external providers occasionally failing to meet the company's quality standards. Inconsistent quality has therefore affected product performance and customer satisfaction.”

Respondent D17 Said:

“Bidco Africa has become overly dependent on external service providers, which has introduced risks related to service reliability and continuity. Over-reliance on outsourcing partners has posed risks if these providers face disruptions or fail to deliver as expected.”

However, Respondents D12 said:

“Outsourcing non-core functions has allowed Bidco Africa to significantly reduce operational costs by leveraging the expertise and efficiencies of external service providers.”

This cost reduction is crucial for maintaining profitability and allocating resources more effectively.”

Hence, these respondents including information officers, dispatch coordinators, lead sales and distributors, warehouse and logistics workers, acknowledge that Outsourcing has had a mixed impact on Bidco Africa’s performance. On the positive side, the company has benefited from cost reduction. However, challenges such as quality control issues, dependency on external providers, communication and coordination difficulties, and hidden costs have also emerged. Addressing these challenges while capitalizing on the benefits of outsourcing will be crucial for Bidco Africa to optimize its performance and maintain a competitive edge in the market.

Interview of Question 7: Summary of respondents’ perceptions and understanding of some of the criteria Bidco Africa use to evaluate the performance of its outsourcing partners.

Respondent B22 said:

“Bidco Africa struggles with inconsistent performance metrics across different outsourcing partners, which makes it difficult to compare and evaluate their effectiveness uniformly. Inconsistent metrics lead to challenges in assessing the true value and performance of outsourcing partners.”

Respondent C15 said:

“Bidco Africa finds it challenging to effectively monitor compliance with contractual obligations, resulting in occasional breaches and deviations from agreed standard. Difficulty in monitoring leads to issues with adherence to contract terms and overall performance.”

Respondent B13 further said that:

“Bidco Africa has encountered hidden costs and unforeseen issues related to its outsourcing partners, which complicate the evaluation process and affect overall cost-effectiveness. Hidden costs have offsetted the financial benefits of outsourcing and impact the overall assessment.”

On the other hand, Respondents B10 and B18 Said that:

“Bidco Africa evaluates its outsourcing partners based on the quality and reliability of the services they provide, which is critical for maintaining operational efficiency and customer satisfaction. Thus, High-quality service delivery is essential for ensuring that outsourcing partners meet the company’s standards and expectations.”

As well *“Bidco Africa assesses the cost-effectiveness of its outsourcing partners to ensure that the cost savings achieved through outsourcing align with the financial goals of the organization” Hence, evaluating cost-effectiveness helps Bidco Africa manage expenses and maximize value from outsourcing agreements.”*

Thus, the respondents, including sales managers, procurement officers, and sales representatives, recognize that Bidco Africa uses various criteria to assess its outsourcing partners, focusing on positive aspects such as service quality and cost-effectiveness.

However, they also identify significant challenges, including inconsistent performance metrics, difficulties in monitoring compliance, hidden costs, and a lack of transparency. These issues highlight areas for improvement in the evaluation process, which are crucial for optimizing Bidco Africa's outsourcing strategy and achieving operational excellence.

Overall, 60% of respondents indicated that Bidco Africa faces problems in its supply chain, negatively impacting its performance. Issues such as transparency, operational inefficiencies, supplier dependency, and labor conditions pose significant challenges. Additionally, the respondents noted problems like supply chain disruptions, high operational costs, inadequate risk management, and limited supplier diversity. Frequent disruptions, escalating costs, vulnerability to market fluctuations, and inconsistent quality control further complicate the situation. Challenges such as inconsistent technology implementation, high costs, and limited flexibility also present obstacles, alongside quality control issues, dependency on external providers, and communication difficulties.

On a positive note, 40% of respondents acknowledged that Bidco Africa's efforts in local sourcing, logistical efficiency, and sustainability are commendable. Improvements in delivery timeliness and inventory control have contributed to better overall performance. Nonetheless, challenges like frequent logistics disruptions, high transportation costs, complex supply chain coordination, and limited operational flexibility need to be addressed. Enhancing these areas while leveraging existing strengths will be crucial for Bidco Africa to improve its logistics management and maintain a competitive edge.

The study underscores the need to address these supply chain challenges and highlights the benefits of Bidco Africa's approach to supply chain optimization, including advanced technology integration, efficient inventory management, strengthened supplier relationships, and sustainability initiatives. These practices have contributed to enhanced operational efficiency and performance, demonstrating the importance of addressing emerging supply chain issues to sustain success.

CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

Chapter five offers a concise overview of the research findings regarding the effect of supply chain practices on Bidco Africa's performance, draws conclusions from these insights, and presents recommendations that align with the study's goals. It also proposes directions for future research to further expand and enhance the current understanding in this area.

5.2 Summary of the Findings

In this research project, the specific objectives in consideration were: to assess the effect of supply chain management on the performance of Bidco Africa, to evaluate the level of logistics management on the performance of Bidco Africa, and to examine the effect of outsourcing practices on the performance of Bidco Africa. In each objective the research undertook three analyses that is mean and standard deviation, correlation and regression analysis.

Objective One: Effect of Supply Chain Management and Performance of Bidco

Africa

According to the inferential analysis, the regression analysis highlighted a significant positive impact of supply chain management on Bidco Africa's performance. The analysis yielded a coefficient of 0.634 and a significance value of 0.003, which is well below the 0.05 threshold. This result indicates that each unit increase in supply chain management leads to a 0.634-unit increase in performance. Additionally, the correlation analysis revealed a strong positive relationship between logistics management and Bidco Africa's performance, with a correlation coefficient of 0.762. This suggests that effective logistics management is vital for enhancing the company's overall performance. Adequate logistics management directly contributes to improving Bidco Africa's operational success. Thus, these findings underscore the importance of effective supply chain management in driving Bidco Africa's performance.

Objective Two: Effect of Logistics Management on Performance of Bidco Africa

According to the inferential analysis, the regression analysis demonstrated that the implementation of logistics management had a significant positive impact on Bidco Africa's

performance, with a coefficient of 0.793 and a significance level of 0.013. This indicates that each unit increase in logistics management corresponds to a 0.793-unit improvement in performance, underscoring the substantial effect of effective logistics management. Further, the correlation analysis revealed a strong positive relationship between logistics management and Bidco Africa's performance, with a correlation coefficient of 0.762. This suggests that logistics management is integral to enhancing Bidco Africa's overall performance. Hence, adequate logistics management is directly linked to improvements in the company's operational success.

Objective Three: Effect of Outsourcing Practices on Performance of Bidco Africa

According to the inferential analysis, the regression analysis showed that each unit increase in outsourcing practices resulted in a 0.608-unit improvement in Bidco Africa's performance. These results confirm that outsourcing practices have a significant impact on the company's overall performance. Additionally, the correlation analysis revealed a strong positive relationship between outsourcing practices and Bidco Africa's performance, with a correlation coefficient of 0.769. This indicates that outsourcing practices are a key factor in influencing the company's performance. Overall, the study underscores the critical role of effective outsourcing practices in Bidco Africa's success.

5.3 Conclusions

The study concluded that Bidco Africa's performance is significantly influenced by supply chain management, logistics management, and outsourcing practices. Each of these factors positively and significantly impacts the company's performance. Specifically, regression analysis indicated that supply chain management contributes 63.4% to Bidco Africa's

performance, logistics management accounts for 69.3%, and outsourcing practices have a 60.8% effect. These conclusions align with previous research. Mwaniki and Ochieng (2019) found that effective supply chain management practices at Bidco Africa significantly enhanced operational performance and cost reduction. Similarly, Njeri (2020) noted that improvements in logistics management, particularly in transportation and inventory control, led to better service delivery and reduced lead times. Additionally, Kiprotich and Nyang'oro (2021) highlighted that outsourcing non-core activities allowed Bidco Africa to concentrate on strategic functions and innovation, thereby contributing to overall organizational growth and market responsiveness. These findings underscore the importance of integrated management strategies in enhancing Bidco Africa's performance and maintaining its competitive edge.

5.4 Recommendations

Based on the study's findings, it is recommended that Bidco Africa adopt a comprehensive approach to enhancing its supply chain and logistics practices. This involves investing in advanced technologies like AI and blockchain to improve inventory management, forecasting, and operational efficiency. The company should also implement sustainable practices to align with global environmental standards and attract eco-conscious consumers. Strengthening supplier relationships and conducting regular performance reviews will ensure reliability and flexibility. Additionally, investing in employee training on best practices and emerging technologies will help maintain a competitive edge. Integrating logistics management systems will streamline processes, and forming strategic partnerships with reliable logistics providers will enhance efficiency and accuracy. Finally, outsourcing

practices should be aligned with the company's operational goals and quality standards to maximize their effectiveness.

5.5. Areas of Further Studies

The study recommends that future research should focus on several key areas to further enhance understanding of Bidco Africa's supply chain dynamics. Investigating the impact of technology integration, such as artificial intelligence and blockchain, on the company's supply chain resilience and agility could provide valuable insights. Additionally, exploring how sustainable supply chain practices affect brand equity and customer loyalty may reveal important long-term performance metrics. Comparative studies with other regional or global firms could help identify best practices and benchmarks, while case studies of specific supply chain disruptions and their resolutions would offer practical lessons on risk management and responsiveness. This comprehensive approach would not only deepen knowledge of Bidco Africa's supply chain but also provide actionable recommendations for optimizing performance in a rapidly evolving market.

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APPENDICES

APPENDIX I: QUESTIONNAIRE

Questionnaire for Bidco Africa employees including Information Officers, Dispatch Coordinators, Lead Sales and Distributors, Warehouse and Logistics, Sales Manager, Procurement Officers and Sales Representatives.

Dear Participants,

I am a masters student at Mount Kenya University conducting research on the “*Effect of supply chain management practices on the performance of Bidco Africa*” Kindly fill this questionnaire as instructed. Information obtained for this research will be safeguarded and kept confidential thus only used for academic purposes only. Your cooperation will be highly appreciated in this regard.

Thank You in advance.

Mary Mueke Kalevu

PART 1: Demographic Characteristics

1. what is your gender?

Male	Female

2. select your age bracket.

Age in Years	Tick
20-30	
30-40	
40-50	
50 and Above	

3. what is your highest level of academic qualification?

Certificate	Diploma Level	University Degree	Post Graduate	Other

PART II: EFFECTS OF SUPPLY CHAIN MANAGEMENT ON THE PERFORMANCE OF BIDCO AFRICA

4. State how you agree or disagree with the following statements depicting effects of Supply chain management on performance of Bidco Africa.

The response scale for the questions is as below;

1=Strongly Agree, 2=Agree,3=Disagree,4=Strongly Disagree

S/N	Supply Chain Management Statements	Strongly Disagree	Disagree	Agree	Strongly Agree
1	There is an improved procurement performance due to an effective supply and purchase management at Bidco Africa.				
2	There is an improved inventory flow performance due to an effective supply and purchase management at Bidco Africa				
3	There is an improved pricing performance due to an effective supply and purchase management at Bidco Africa.				
4	There is an improved delivery performance due to an effective supply and purchase management at Bidco Africa.				
5	There is an improved compliance performance due to an effective supply and purchase management at Bidco Africa.				

PART III: EFFECTS OF LOGISTICS MANAGEMENT ON THE PERFORMANCE OF BIDCO AFRICA

5. State how you agree or disagree with the following statements depicting effects of logistics management on performance of Bidco Africa.

The response scale for the questions is as below;

1=Strongly Agree, 2=Agree,3=Disagree,4=Strongly Disagree

S/N	Logistics Management Statements	Strongly Disagree	Disagree	Agree	Strongly Agree
1	There is timely delivery of products due to an effective logistics management at Bidco Africa.				
2	There is continuous flow of materials due to an effective logistics management at Bidco Africa.				
3	There are fair transportation costs due to an effective logistics management at Bidco Africa.				
4	There are fair warehousing costs due to an effective logistics management at Bidco Africa.				
5	There are accurate inventories due to an effective logistics management at Bidco Africa.				

PART IV: EFFECTS OF OUTSOURCING PRACTICES ON PERFORMANCE OF BIDCO AFRICA.

6. State how you agree or disagree with the following statements depicting effects of outsourcing practices on performance of Bidco Africa.

The response scale for the questions is as below;

1=Strongly Agree, 2=Agree,3=Disagree,4=Strongly Disagree

S/N	Outsourcing Practices	Strongly Disagree	Disagree	Agree	Strongly Agree
1	There are streamlined outsourcing operations due to effective outsourcing practices at Bidco Africa.				
2	There is an outsourcing cost reduction due to effective outsourcing practices at Bidco Africa.				
3	There is increased productivity due to effective outsourcing practices at Bidco Africa.				
4	There is improved outsourcing expertise due to effective outsourcing practices at Bidco Africa.				
5	A positive corporate image is developed due to effective outsourcing practices at Bidco Africa.				

PART V: EFFECTS OF SUPPLY CHAIN PRACTICES ON PERFORMANCE OF BIDCO AFRICA.

7. State how you agree or disagree with the following statements depicting effects of supply chain practices on performance of Bidco Africa.

The response scale for the questions is as below;

1=Strongly Agree, 2=Agree,3=Disagree,4=Strongly Disagree

S/N	Performance of Bidco Africa	Strongly Disagree	Disagree	Agree	Strongly Agree
1	Effective supply chain practices have improved the quality performance of Bidco Africa.				
2	Effective supply chain practices have improved process efficiency of Bidco Africa				
3	Effective supply chain practices have improved customer satisfaction of Bidco Africa				
4	Effective supply chain practices have increased profitability of Bidco Africa				
5	Effective supply chain practices have increased the cash flow return on investment of Bidco Africa				

APPENDIX II: INTERVIEW GUIDE

Interview guide for Bidco Africa employees including Information Officers, Dispatch Coordinators, Lead Sales and Distributors, Warehouse and Logistics, Sales Manager, Procurement Officers and Sales Representatives.

- 1) What is your understanding of the supply chain management practices of Bidco Africa?
- 2) What are the key supply chain management practices employed by Bidco Africa?
- 3) What are some of the ways in which supply chain management affect the performance of Bidco Africa?
- 4) How does Bidco Africa optimize its supply chain to enhance performance?
- 5) Explain some of the ways that logistics management has positively impacted Bidco Africa's performance.
- 6) In what ways has outsourcing positively impacted Bidco Africa's performance?
- 7) What specific criteria does Bidco Africa use to evaluate the performance of its outsourcing partners?

APPENDIX III: CONSENT FOR PARTICIPATION

I volunteer to participate in this research project conducted by **MARY MUEKE KALEVU** from Mount Kenya University. I understand that this research project is meant to collect data. The research will involve 31 participants from Bidco Africa.

1. My involvement in this research project is voluntary and does not attract any form of payment. I may also choose to withdraw from this research project at my own pleasure without being penalized in the event I encounter aggravated questions.
2. I am assured of confidentiality during the data collection process and the researcher will not, in any way, mention my name when presenting the project report
3. I have meticulously gone through the instructions presented in the research project and therefore consent to participate in this research study willingly.
4. The researcher has issued me with a copy of the research consent of participation.

.....

My signature Date

.....

Name and Signature of Investigator

For any Clarity, get in touch: **MARY M. KALEVU**

TEL: 0795086415,Email: marykalevu@gmail.com.

APPENDIX IV: RESEARCH LICENSE

 REPUBLIC OF KENYA	 NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION
Ref No: 375115	Date of Issue: 02/August/2024
RESEARCH LICENSE	
	
This is to Certify that Ms. mary kalevu of Mount Kenya University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Kiambu on the topic: Assessment of Supply Chain Practices on Performance of Manufacturing Firms in Kenya: Case Study of Bidco Africa. for the period ending : 02/August/2025.	
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APPENDIX V: ERC

Mount Kenya University



REF: MKU/ISERC/3961
TO: MARY MUEKE

Date: 29 July 2024

REG: MSCPM/2022/35137 (Amended)

Dear Sir/Madam,

RE: ASSESMENT OF SUPPLY CHAIN PRACTICES ON PERFORMANCE OF MANUFACTURING FIRMS IN KENYA : CASE STUDY OF BIDCO AFRICA

This is to inform you that **Mount Kenya University** has reviewed and approved your above research proposal. Your application approval number is **2925**. The approval period is **23/07/2024 - 24/07/2025**.

This approval is subject to compliance with the following requirements;

- i. Only approved documents including informed consents, study instruments, MTA will be used
- ii. All changes including amendments, deviations and violations are submitted for review and approval by **Mount Kenya University**
- iii. Death and life-threatening problems and serious adverse events or unexpected adverse events whether related or unrelated to the study must be reported to **Mount Kenya University** within 72 hours of notification
- iv. Any changes, anticipated or otherwise that may increase the risks or affect the safety or welfare of study participants and others or affect the integrity of the research must be reported to **Mount Kenya University** within 72 hours
- v. Clearance for export of biological specimens must be obtained from relevant institutions
- vi. Submission of a request for renewal of approval at least 60 days prior to expiry of the approval period. Attach a comprehensive progress report to support the renewal
- vii. Submission of an executive summary report within 90 days upon completion of the study to **Mount Kenya University**

Prior to commencing your study, you will be expected to obtain a research license from National Commission for Science, Technology and Innovation (NACOSTI) <https://research-portal.nacosti.go.ke> and also obtain other clearances needed.

Yours sincerely,

Dr. Alfred Owino, PhD
Chairman, Mount Kenya University ISERC



APPENDIX VI: INTRODUCTION LETTER



DIRECTORATE OF GRADUATE STUDIES

MSCPM/2022/35137

29th July, 2024

*National Commission for Science Technology & Innovation (NACOSTI)
Off Waiyaki Way, Upper Kabete,
P.O Box 30623- 00100
NAIROBI, KENYA*

Dear Sir/Madam,


RE: MARY MUEKE- REGISTRATION NO. MSCPM/2022/35137

The purpose of this letter is to introduce the above named student who is pursuing **Master of Science in Project Management** in the **Department of Management** in the school of **Business and Economics**.

The title of the research is "**Assessment of Supply Chain Practices on Performance of Manufacturing Firms in Kenya: Case Study of Bidco Africa.**" It has been cleared by the University's Ethics Review Committee (Certificate attached) and now has to proceed to the field to collect data between **August, 2024 and October, 2024**.

Any assistance accorded to the student will be highly appreciated.

Thank you..


Dr. Samuel M. Karenga, Ph.D
Director, Graduate Studies
Enc.

Mount Kenya University
P.O. Box 342 - 01001, THIKA
Office of the Director,
Graduate Studies

APPENDIX VII: SIMILARITY INDEX REPORT



mary mueke

ASSESSMENT OF SUPPLY CHAIN PRACTICES ON PERFORMANCE OF MANUFACTURING FIRMS IN KENYA: CAS...

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