THE ROLE OF PROCUREMENT IN SUSTAINABLE SUPPLY FACTORS

(A CASE STUDY OF DELUXE PAINTS, LAGOS)

BY

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BEING A RESEARCH PROJECT SUBMITTED TO THE DEPARTMENT OF PROCUREMENT AND SUPPLY CHAIN MANAGEMENT,

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CERTIFICATION

This original research project was carried out by **Ademola Fawaz** with matriculation number **ND/23/PSM/FT/0105** and has been read and approved as meeting part of the requirements for the award of National Diploma (ND) procurement and supply Chain management by the department of procurement and supply Chain management institute of finance and management studies (IFMS) kwara state polytechnic Ilorin.

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DEDICATION

This research work is dedicated to Almighty Allah

ACKNOWLEDGEMENT

All Praise and adoration to almighty God who has kept me alive since my cradle ti ll this moment I say a big thank you.

My appreciation goes to my able supervisor in person Mr. Ayanda J. O. who saw me through during the course of my project work. I say may almighty God be with you an d your household.

As well as everything that I do I would be honored to dedicate this compilation to my parents. The two people that gave the tools and values necessary to be where I am st anding today. my parents support me on every step I take and decision I take but it is nec essary to understand that they let me take my decision alone in order for me to learn fro

m my personal mistakes.

I will never finish thanking my parents Mr. and Mrs. Ademola for all the opportunit ies that they have offered and given me for all the teachings that they have told me, and for every advice that comes out of their mouth. I am so grateful worth them for trusting me that I would do a good job in my University and letting me come to achieve a higher e ducation.

So that's why I dedicate this portfolio to my parents who expect my effort in every thing that I do, and thank that this completion is the perfect instrument reflection of my e ffort and hard work in reading and writing skills mama and papa I hope that I can make you proud. the same way that I am proud of you both of you as my parents and as the c ompass of my life! And my National diploma appreciation goes to my friends Mubaraq a nd Ibrahim, I say thanks

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ABSTRACT

The role of procurement in promoting sustainable supply chain factors is critical for ens uring environmentally responsible, socially equitable, and economically viable operation s. Effective procurement practices involve strategically selecting suppliers, managing re sources, and integrating sustainability principles to minimize environmental impact, enh

ance social responsibility, and optimize economic performance. This research focuses on the significance of procurement in fostering sustainable supply chain practices withi n a manufacturing context, using Deluxe Paints, Lagos, as a case study. To facilitate a cl ear understanding, the study is structured into five chapters: Chapter One provides an in troduction, statement of the problem, objectives, significance, scope, limitations, resear ch questions, hypotheses, historical background of the case study, and definition of ter ms. Chapter Two covers the literature review, including conceptual and theoretical fram eworks, empirical studies, and gaps in the literature. Chapter Three details the research methodology, encompassing the research design, data sources, and methods. Chapter Four addresses data collection tools, population, sample size, sampling procedures, and statistical techniques for data analysis. Chapter Five presents a summary of findings, c onclusions, and recommendations to enhance sustainable procurement practices.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

In the evolving landscape of global commerce, the concept of sustainability has emerged a s a central theme in supply chain management. As environmental concerns, social equity, a nd economic performance grow in significance, organizations are increasingly reevaluating traditional procurement practices to align with the goals of sustainable development. Procu rement, a critical function within the supply chain, plays a pivotal role in shaping how resou rces are acquired, managed, and consumed. As such, the integration of sustainability princi ples into procurement strategies has become a vital component for ensuring long-term orga nizational viability and responsible business practices (Carter & Rogers, 2008).

The global demand for sustainable supply chains has been driven by a combination of reg ulatory pressures, consumer awareness, and the environmental consequences of industrial operations. Traditional supply chain models often emphasized cost and efficiency without considering environmental and social impacts. However, this approach has proven unsustai nable in the face of climate change, resource depletion, and increased stakeholder scrutiny. The modern supply chain must now consider the triple bottom line – people, planet, and pr ofit – in all strategic and operational decisions (Elkington, 1997).

Procurement sits at the heart of this transformation. As the function responsible for sourcin g raw materials, components, and services, procurement has the leverage to influence suppl ier behavior and enforce sustainability standards throughout the supply chain. Sustainable procurement involves selecting suppliers who adhere to ethical labor practices, environment al conservation, and corporate social responsibility (CSR) standards. This shift requires org anizations to adopt comprehensive procurement policies, conduct supplier audits, and impl ement lifecycle costing approaches that consider long-term environmental and social impli

cations (Walker & Brammer, 2009).

In Nigeria, the adoption of sustainable procurement practices is still in its infancy, particularly within the manufacturing and construction sectors. Challenges such as poor infrastructure, regulatory gaps, corruption, and limited supplier capacity hinder the widespread implementation of sustainable supply chain strategies. Nonetheless, organizations like Deluxe Paint in Lagos have begun recognizing the strategic importance of procurement in achieving sustainability objectives. As a company operating in the highly competitive paint manufacturing industry, Deluxe Paint must balance operational efficiency with responsible sourcing to maintain its market position and comply with international standards.

Deluxe Paint's supply chain involves the procurement of chemical substances, pigments, packaging materials, and machinery – many of which have significant environmental footprints. The proper management of these materials, along with the adoption of green procurement policies, is essential for reducing pollution, improving resource efficiency, and promoting employee and consumer safety. Sustainable procurement at Deluxe Paint could involve selecting eco-friendly raw materials, engaging with local suppliers to reduce transportation emissions, and ensuring fair labor practices throughout the value chain.

The growing interest in sustainability has also been influenced by global frameworks such as the United Nations Sustainable Development Goals (SDGs), particularly Goal 12, which emphasizes responsible consumption and production. Businesses are now expected to demonstrate their commitment to sustainable practices not only through compliance but through proactive efforts in improving their sourcing and production systems (UNDP, 2020).

This study seeks to explore the specific role that procurement plays in supporting sustainable supply chain practices within Deluxe Paint, Lagos. It aims to identify current procurement practices, evaluate their alignment with sustainability principles, and provide actionable r

ecommendations for improvement. The findings of this research will contribute to the body of knowledge on sustainable supply chain management in Nigeria and support efforts by l ocal manufacturers to integrate procurement strategies that promote environmental, social, and economic well-being.

1.2 Statement of the Problem

Despite the increasing global emphasis on sustainability, many Nigerian manufacturing co mpanies still rely on traditional procurement models that prioritize cost over environmental and social impact. This short-term focus undermines long-term sustainability goals and ex poses companies to reputational and regulatory risks. Deluxe Paint, like many other local m anufacturers, faces challenges in aligning its procurement function with sustainable supply chain practices. These include lack of supplier awareness, inadequate regulatory enforcem ent, and limited internal capacity for implementing green procurement policies. This study i nvestigates these challenges and explores how procurement can be effectively leveraged to enhance sustainability in supply chain operations.

1.3 Objectives of the Study

The primary objective of this study is to examine the role of procurement in promoting sust ainable supply chain factors in Deluxe Paint, Lagos. The specific objectives are:

i. To identify the current procurement practices used by Deluxe Paint.

ii. To assess the extent to which these practices align with sustainable supply chain pri nciples.

iii. To evaluate the challenges faced in implementing sustainable procurement strategie s.

iv. To recommend strategies for improving sustainable procurement in the organizatio n.

1.4 Significance of the Study

This study holds significance for several stakeholders. For Deluxe Paint, it provides insights into improving procurement strategies to support sustainability goals. For policymakers an d regulators, it offers evidence to support the development of sustainable procurement fra meworks. For academics, the study contributes to the growing body of literature on sustain able supply chain management in developing countries. Finally, it helps suppliers and indus try partners understand the importance of sustainability in meeting future procurement req uirements.

1.5 Scope and Limitations of the Study

The study focuses specifically on the procurement practices of Deluxe Paint in Lagos and h ow they relate to sustainable supply chain management. It covers procurement policies, su pplier selection, environmental considerations, and social responsibility. Limitations may in clude limited access to proprietary procurement data, time constraints, and potential bias in self-reported information from respondents.

1.6 Research Questions

i. What procurement practices are currently used by Deluxe Paint?

ii. How do these practices align with sustainability principles?

iii. What challenges does Deluxe Paint face in implementing sustainable procurement?

iv. What strategies can be recommended to improve procurement's role in sustainabilit y?

1.7 Formulation of Research Hypotheses

H_{01}: Procurement has no significant effect on environmental sustainability in Deluxe Paint's supply chain.

H_{02}: Procurement has no significant influence on social responsibility outcomes in t he supply chain.

H_{03}: Procurement practices do not affect the economic performance of the supply ch ain.

H_{04}: There is no significant relationship between procurement strategy and sustaina ble supply chain management at Deluxe Paint.

1.8 Historical Background of the Case Study

The history of Deluxe Paints in Lagos is a narrative interwoven with the evolution of Nigeria' s paint industry, reflecting broader trends in industrial development, trade, and cultural adap tation in the region. While specific historical documentation on Deluxe Paints as a distinct e ntity in Lagos is limited, the context can be pieced together through the development of the paint industry in Nigeria, the influence of international brands, and the local entrepreneurial spirit that has shaped Lagos as a commercial hub. This exploration delves into the probabl e origins, growth, and significance of Deluxe Paints within this dynamic landscape, spannin g over several decades.

Lagos, established as a major port city during the colonial era, became a focal point for tra

de and industrial activities following British colonization in the 19th century. The introducti on of manufactured goods, including paints, was initially dominated by European compani es seeking to capitalize on the growing demand for construction and decoration materials. The paint industry in Nigeria began to take shape in the mid-20th century, with the establish ment of local manufacturing capabilities spurred by post-independence economic policies. Companies like Berger Paints, which set up its first factory in Nigeria in 1959, laid the groun dwork for a competitive market. It is within this milieu that brands like Deluxe Paints likely e merged, either as an imported product or a locally adapted brand, catering to the burgeonin g construction sector in Lagos.

The origins of Deluxe Paints can be traced to the global paint industry's expansion, where b rands such as Dulux (introduced by Imperial Chemical Industries in 1931) set a precedent f or durable and luxurious paint formulations. While Dulux became a household name intern ationally, local variants or competing brands like Deluxe Paints may have been introduced t o Nigeria through trade networks or local entrepreneurship. Anecdotal evidence from posts f ound on X suggests that individuals like Phillip Oyeyipo Adekunle, a purported founding dis tributor of Deluxe Paints in Nigeria, played a pivotal role in its early distribution. His busines s, "Phillip Adekunle and Sons Enterprise," is said to have been a key player in the AMU plank market, indicating a grassroots commercial foundation for the brand in Lagos during the mi d-20th century.

The 1960s and 1970s marked a period of industrial growth in Nigeria, fueled by the oil boo m and government incentives for local manufacturing. Lagos, as the economic capital until the relocation of the federal capital to Abuja in 1991, attracted numerous businesses, includ ing paint manufacturers and distributors. Deluxe Paints likely benefited from this economic surge, positioning itself as a viable alternative to established brands. The company may ha ve capitalized on the demand for affordable yet quality paints for residential, commercial, a

nd industrial applications, aligning with the rapid urbanization of Lagos. The proliferation o f markets like the AMU plank market, a hub for construction materials, provided a fertile gro und for Deluxe Paints to establish a foothold.

By the 1980s and 1990s, the paint industry in Nigeria saw increased localization, with com panies adapting international formulas to suit local climatic conditions, such as high humi dity and intense sunlight. Deluxe Paints, if indeed a local brand, would have needed to inno vate or collaborate with suppliers to offer products like water-based emulsions or oil-based enamels that could withstand Lagos's environmental challenges. The presence of other ma jor players, such as Dulux and Berger Paints, suggests a competitive market where Deluxe P aints would have differentiated itself through pricing, distribution networks, or targeted mar keting to local contractors and homeowners.

The historical significance of Deluxe Paints in Lagos also reflects the city's role as a cultura l and economic melting pot. As Lagos grew into a metropolis with a mix of colonial architec ture, indigenous designs, and modern skyscrapers, the demand for paints expanded beyond mere functionality to include aesthetic appeal. Deluxe Paints likely catered to this diverse m arket, offering a range of shades and finishes that appealed to both traditional and contem porary tastes. The brand's association with distributors like Phillip Adekunle hints at a com munity-driven approach, where family enterprises played a crucial role in penetrating local markets.

In the 21st century, the paint industry in Lagos has continued to evolve with advancements in technology and a shift toward eco-friendly products. While specific records of Deluxe Pai nts' trajectory are scarce, its historical presence can be inferred from the broader industry tr ends and the enduring legacy of early distributors. The company may have faced challenge s from larger multinational corporations or merged with other entities, a common occurrenc e in Nigeria's competitive market. Nonetheless, its early contributions to the paint sector in L

agos underscore the resilience of local businesses in building a foundation for the industry's growth.

The historical background of Deluxe Paints in Lagos is thus a testament to the interplay between global influences and local ingenuity. From its probable inception as an imported or locally branded product in the mid-20th century to its role in supporting Lagos's urban development, Deluxe Paints represents a chapter in Nigeria's industrial narrative. While exact details remain elusive without comprehensive archival data, the brand's legacy is preserved in the memories of distributors and the physical structures painted with its formulations across Lagos's evolving skyline.

1.9 Definition of Key Terms

- **Procurement**: The strategic process of acquiring goods and services from external sources to meet organizational needs.
- **Sustainability**: The ability to meet present needs without compromising the ability of future generations to meet their own needs.
- **Supply Chain**: A network of interconnected businesses involved in the provision of products and services from supplier to end-user.
- **Sustainable Procurement**: The process of purchasing goods and services with consideration for environmental, social, and economic impacts.
- **Green Supply Chain**: A supply chain that incorporates environmental considerations into product design, sourcing, and delivery.
- **Environmental Impact**: The effect that organizational operations and procurement activities have on the natural environment.
- **Corporate Social Responsibility (CSR)**: A business approach that contributes to sustainable development by delivering social, environmental, and economic benefits.
- **Lifecycle Costing**: A method of assessing the total cost of ownership of a product, incl

uding procurement, maintenance, and disposal.

- **Ethical Sourcing**: The process of ensuring that the products being sourced are obtained in a responsible and sustainable way.
- **Stakeholders**: Individuals or groups with an interest or concern in an organization's acti vities and outcomes, including employees, customers, suppliers, and regulators.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

The increasing global emphasis on sustainability has positioned procurement as a critical f unction in achieving sustainable supply chain management (SSCM). Sustainable procurem ent integrates environmental, social, and economic considerations into sourcing decisions, aligning organizational practices with the triple bottom line (TBL) of people, planet, and pro fit (Elkington, 1997). This literature review examines the role of procurement in fostering su stainable supply chain factors, with specific relevance to Deluxe Paints, Lagos, a key player in Nigeria's paint manufacturing industry. The review explores theoretical frameworks, empi rical evidence, and practical applications to understand how procurement drives environme ntal performance, social responsibility, economic efficiency, and supply chain resilience. It a lso addresses challenges and opportunities in the Nigerian context, where infrastructure lim itations and regulatory gaps pose unique constraints.

2.1 Conceptual Framework

2.1.1 Sustainable Procurement

Sustainable procurement is a critical component in promoting sustainable supply chain factors, aligning closely with the competencies required for administrative roles, such as secretaries, in supporting organizational efficiency and sustainability goals. The project topic, "A Comparative Analysis of Required Office Skills Competencies for Secretaries in an Organization," highlights the evolving roles of secretaries in modern organizations, emphasizing skills like information and communication technology (ICT) proficiency, interpersonal communication, and organizational support. Similarly, sustainable procurement involves leveraging procurement processes to achieve environmental, social, and economic sustainability, requiring a blend of technical and soft skills that parallel secretarial competencies. This discussion explores the role of procurement in fostering sustainable supply chain factors, drawing parallels to the administrative support provided by secretaries, and underscores how these roles intersect to enhance organizational sustainability.

Sustainable procurement refers to the integration of environmental, social, and economic considerations into procurement decisions to support long-term sustainability goals. According to Zhu and Krikke (2020), sustainable procurement involves selecting suppliers based on their reliability, environmental performance, and adherence to ethical standards, which reduces costs and enhances supply chain efficiency. This process requires procurement professionals to possess competencies such as supplier evaluation, contract negotiation, and risk assessment, which are critical for ensuring that supply chains minimize environmental impact, uphold labor standards, and maintain economic viability. For instance, selecting suppliers who use eco-friendly materials or adhere to fair labor practices contributes to reducing carbon footprints and promoting social equity. These tasks align with secretarial roles, as secretaries often manage correspondence, maintain records, and coordinate schedules, ensuring seamless communication between procurement teams and suppliers. Their ability to handle documentation and use ICT tools, such as scheduling software and digital record-keeping systems, directly supports the administrative backbone of sustainable procurement initi

atives.

The adoption of digital technologies is a cornerstone of sustainable procurement, mirroring the technological competencies required of secretaries. Chege and Wang (2020) found that technological capabilities, such as real-time tracking and data analytics, enable procureme nt professionals to mitigate supply chain risks and enhance sustainability by optimizing re source use and reducing waste. For example, e-procurement systems streamline supplier int eractions, reduce paper-based processes, and improve transparency, as noted by Madzimur e et al. (2021). These technological advancements require procurement professionals to be proficient in digital tools, a skill also emphasized in Atolagbe's study for secretaries who m ust master word processing, email applications, and scheduling platforms. Secretaries play a pivotal role in supporting procurement by organizing data, managing digital corresponde nce, and ensuring that procurement teams have access to accurate and timely information. For instance, a secretary's ability to maintain an updated supplier database or schedule me etings with stakeholders facilitates the procurement team's efforts to implement sustainabl e practices, such as sourcing from environmentally responsible suppliers.

Interpersonal and communication skills are equally vital in sustainable procurement, reflect ing the soft skills required of secretaries. Stekelorum (2020) highlights that procurement pr ofessionals must collaborate with stakeholders, including suppliers, regulators, and internal teams, to integrate sustainability into supply chain operations. Effective communication en sures that sustainability goals are clearly articulated and understood across the supply cha in, fostering trust and cooperation. Similarly, secretaries serve as the interface between exec utives, staff, and external stakeholders, using their communication skills to manage corresp ondence, resolve conflicts, and coordinate activities. For example, a secretary may draft em ails or reports that communicate procurement policies to suppliers, ensuring alignment with sustainability objectives. Their sense of discretion, as noted in Atolagbe's study, is crucial w

hen handling sensitive procurement data, such as supplier contracts or sustainability comp liance reports, ensuring confidentiality and trust in the procurement process.

Challenges in sustainable procurement, such as regulatory constraints, limited training, and work overload, parallel those faced by secretaries. Ojo and Raman (2022) identified barriers like insufficient sustainability knowledge and poor economic conditions in the Nigerian con struction industry, which hinder effective procurement practices. These challenges undersc ore the need for continuous professional development, a recommendation also made in Ato lagbe's study for secretaries. Training in sustainability awareness and digital tools can emp ower procurement professionals to overcome these barriers, just as ICT training enhances s ecretarial efficiency. For instance, secretaries who lack proficiency in modern software may struggle to support procurement teams in managing digital supplier records or tracking sus tainability metrics. Organizations must invest in training programs to bridge these skill gap s, ensuring that both procurement professionals and secretaries can adapt to evolving dem ands. Additionally, the increased workload noted in both procurement and secretarial roles highlights the need for clear role definitions and supportive work environments to prevent b urnout and enhance productivity.

The benefits of sustainable procurement extend beyond environmental and social impacts to include economic advantages, such as cost savings and improved organizational reputa tion. Kate (2011), as cited in Ifeolu (2013), notes that skillful professionals in administrative roles contribute to organizational efficiency by reducing errors and optimizing processes. Si milarly, a procurement professional with sustainability expertise can reduce costs by selecti ng suppliers who offer energy-efficient materials or by negotiating contracts that prioritize l ong-term value over short-term gains. Secretaries support these efforts by ensuring that pro curement documentation is accurate and accessible, facilitating timely decision-making. Fo r example, maintaining organized records of supplier certifications or sustainability reports

enables procurement teams to make informed choices, enhancing the organization's sustainability profile. This synergy between procurement and secretarial roles underscores the importance of aligning competencies to achieve shared organizational goals.

To maximize the impact of sustainable procurement, organizations must foster collaboration between procurement teams and administrative support staff. Atolagbe's study recommends targeted training and stronger collaboration to enhance secretarial productivity, a strategy equally applicable to procurement. By equipping secretaries with skills to support procurement tasks—such as managing supplier communications or using e-procurement platforms—organizations can create a cohesive approach to sustainability. For instance, a secretary's ability to schedule and document meetings with suppliers ensures that procurement teams can focus on strategic decision-making rather than administrative tasks. Moreover, integrating sustainability metrics into procurement processes, as suggested by Stekelorum (2020), requires accurate data management, a task often handled by secretaries. This collaborative approach enhances the organization's ability to meet sustainability goals while maintaining operational efficiency.

Sustainable procurement plays a pivotal role in promoting sustainable supply chain factors by integrating environmental, social, and economic considerations into procurement decisions. The competencies required—digital literacy, communication, supplier management, and sustainability awareness—mirror the skills needed by secretaries, as outlined in Atolagbe's study. By supporting procurement through administrative tasks like record-keeping, communication, and scheduling, secretaries contribute to the success of sustainable supply chain initiatives. Addressing challenges such as training gaps and work overload through professional development and clear role definitions can enhance the effectiveness of both procurement professionals and secretaries. As organizations strive for sustainability, the synergy between these roles underscores the importance of equipping all employees with the skills nee

ded to navigate the complexities of modern supply chains.

2.1.2 Environmental Sustainability in Supply Chains

Environmental sustainability in supply chains has become a critical focus for organizations aiming to reduce their ecological footprint while maintaining operational efficiency. As glob al awareness of climate change, resource depletion, and environmental degradation grows, procurement functions have emerged as pivotal in promoting sustainable supply chain fact ors. By integrating environmental considerations into supplier selection, contract managem ent, and operational processes, procurement professionals drive sustainability, supported b y administrative roles like secretaries who facilitate these efforts through their organization al and technological competencies.

Procurement plays a central role in fostering environmental sustainability by embedding gr een practices into supply chain operations. According to Stekelorum (2020), sustainable su pply management involves selecting suppliers based on their environmental performance, s uch as adherence to carbon emission standards and use of eco-friendly materials. This alig ns with the broader objectives of sustainable supply chain management (SSCM), which see ks to balance environmental, social, and economic goals. Procurement professionals evalu ate suppliers' environmental certifications, such as ISO 14001, and prioritize those who de monstrate commitment to reducing waste, conserving energy, and minimizing pollution. For instance, Zhu and Krikke (2020) found that reliable suppliers who adopt sustainable practic es reduce resource waste and enhance cost efficiency, contributing to greener supply chain s. These activities require procurement professionals to possess competencies in supplier a ssessment, sustainability compliance, and data analysis—skills that resonate with the ICT a nd organizational competencies required of secretaries, who manage records and correspo ndence to support such evaluations.

Technological advancements further amplify procurement's role in environmental sustainability. Chege and Wang (2020) highlight that technologies like real-time tracking and data analytics enable procurement teams to monitor suppliers' environmental performance, such as carbon footprints and resource usage, in real time. E-procurement systems, as explored by Madzimure et al. (2021), reduce paper-based processes, thereby decreasing the environmental impact of administrative tasks. These systems require procurement professionals to be proficient in digital tools, a competency shared with secretaries who use scheduling software and digital record-keeping to streamline administrative support. For example, secretaries can manage procurement-related documentation, such as supplier contracts and compliance reports, ensuring that sustainability data is organized and accessible. This synergy underscores the importance of technological literacy for both roles, as secretaries' ability to handle digital platforms supports procurement's efforts to implement sustainable practices efficiently.

However, achieving environmental sustainability in supply chains faces several challenges, particularly in developing economies. Ojo and Raman (2022) identify barriers such as limited government support, economic constraints, and insufficient sustainability knowledge among procurement professionals in Nigeria's construction industry. These challenges mirror those faced by secretaries, as noted in Atolagbe's study, where lack of professional training and work overload hinder performance. To overcome these, procurement teams need training in green purchasing and lifecycle assessment, which evaluates the environmental impact of products from production to disposal. Secretaries, with their role in organizing training schedules and maintaining records, can support these initiatives by ensuring that procurement professionals have access to relevant resources and workshops. For instance, a secretary's ability to coordinate meetings and manage executive calendars, as highlighted in Atolagbe's research, ensures that sustainability-focused training sessions are effectively scheduled and documented.

Collaboration with stakeholders is another critical aspect of procurement's role in environm ental sustainability. Stekelorum (2020) emphasizes that procurement professionals must e ngage with suppliers, regulators, and internal teams to align sustainability goals. This requi res strong communication and interpersonal skills, akin to those required of secretaries who act as communication links between executives and stakeholders. Secretaries' competenci es in handling correspondence and maintaining confidentiality are vital when procurement teams negotiate contracts with suppliers to include environmental clauses, such as commit ments to renewable energy use or waste reduction. By managing these communications, se cretaries ensure that procurement's sustainability efforts are seamlessly integrated into org anizational operations, enhancing overall efficiency.

The integration of environmental sustainability into procurement also involves addressing r egulatory and ethical considerations. Ojo and Raman (2022) note that compliance with env ironmental regulations, such as emissions standards, is a significant challenge in developi ng countries. Procurement professionals must navigate these regulations while ensuring th at suppliers adhere to ethical practices, such as fair labor conditions and sustainable sourci ng. This requires competencies in regulatory analysis and ethical decision-making, which p arallel the problem-solving and discretion skills needed by secretaries. Atolagbe's study hig hlights that secretaries must handle sensitive information and make decisions within their authority, a skill that supports procurement by ensuring that confidential sustainability dat a, such as supplier audits, is managed securely.

To enhance environmental sustainability, organizations must invest in capacity building for both procurement professionals and support staff like secretaries. Madzimure et al. (2021) recommend regular training in e-procurement and sustainability practices to bridge knowled ge gaps. Similarly, Atolagbe's study advocates for targeted training to equip secretaries with ICT and organizational skills, enabling them to support complex administrative tasks. By ali

gning these training efforts, organizations can create a cohesive workforce where procurem ent and administrative roles collaborate to promote sustainable supply chains. For exampl e, secretaries can use their organizational skills to maintain databases of sustainable suppl iers, ensuring that procurement teams have access to up-to-date information for decision-m aking.

2.1.3 Supplier Relationship Management in Promoting Sustainable Supply Chain Factor

Supplier Relationship Management (SRM) is a critical component of procurement that signi ficantly contributes to promoting sustainable supply chain factors. SRM involves the strate gic management of interactions with suppliers to foster mutually beneficial relationships, o ptimize performance, and align with organizational goals, including sustainability. In the co ntext of the project topic, A Comparative Analysis of Required Office Skills Competencies fo r Secretaries in an Organization, SRM parallels the evolving role of secretaries, who require advanced competencies to support procurement activities that drive sustainable supply ch ains. This discussion explores SRM's role in sustainable procurement, drawing connections to the administrative competencies needed to support such efforts, and highlights its impa ct on environmental, social, and economic sustainability.

SRM is integral to sustainable supply chain management (SSCM) as it enables organizatio ns to collaborate with suppliers to meet sustainability objectives. According to Zhu and Krik ke (2020), reliable suppliers are essential for reducing costs and ensuring timely delivery, w hich minimizes environmental waste from rush orders or excess inventory. SRM facilitates t he selection of suppliers who adhere to sustainable practices, such as using eco-friendly m aterials or maintaining ethical labor standards. Procurement professionals must possess c ompetencies in supplier evaluation, contract negotiation, and performance monitoring to en sure suppliers align with sustainability goals. These skills are akin to secretarial competenc ies, such as managing correspondence, scheduling, and maintaining records, which suppor

t procurement by ensuring seamless communication and documentation with suppliers. Fo r instance, secretaries proficient in ICT can manage digital platforms used for supplier coor dination, enhancing the efficiency of SRM processes.

Moreover, SRM fosters collaboration and transparency, which are vital for social and enviro nmental sustainability. Stekelorum (2020) emphasizes that effective SRM involves engagin g suppliers in sustainability compliance, such as adhering to carbon reduction targets or fai r labor practices. This requires procurement professionals to have strong interpersonal and communication skills to build trust and negotiate terms that prioritize sustainability. Similar ly, secretaries play a supportive role by organizing meetings, drafting correspondence, and maintaining confidentiality, which are critical for facilitating SRM activities. For example, a secretary's ability to schedule and document supplier meetings ensures that procurement te ams can focus on strategic discussions, thereby strengthening supplier relationships that s upport sustainable practices.

Technological advancements further enhance SRM's role in SSCM. Madzimure et al. (2021) highlight that e-procurement systems streamline supplier integration, reducing paper-based processes and environmental impact. Procurement professionals need digital literacy to lev erage these systems, a skill mirrored in the technological competencies required of modern secretaries, such as proficiency in scheduling software and database management. Secret aries can support SRM by managing digital records of supplier contracts and performance metrics, ensuring that procurement teams have access to accurate data for decision-makin g. This synergy underscores the importance of administrative support in achieving sustaina ble procurement outcomes.

However, SRM faces challenges that impact its effectiveness in promoting sustainability. Oj o and Raman (2022) note barriers such as limited supplier knowledge of sustainability prac tices and economic constraints in developing countries. These challenges require procurem

ent professionals to engage in capacity-building initiatives, such as training suppliers on sustainable practices, which demands skills in stakeholder engagement and education. Secretaries can support these efforts by coordinating training sessions, managing communication with suppliers, and ensuring that documentation is up-to-date, thereby reducing the administrative burden on procurement teams. The lack of professional development opportunities, as identified by Atolagbe (2025), also affects both procurement professionals and secretaries, highlighting the need for targeted training to enhance SRM capabilities.

Economically, SRM contributes to sustainability by optimizing supply chain efficiency and reducing costs. Chege and Wang (2020) found that technological tools like real-time tracking improve supplier performance, minimizing disruptions and waste. Procurement professionals must be adept at using these tools, while secretaries support by maintaining digital schedules and records that facilitate timely supplier interactions. This collaboration ensures that sustainable practices are integrated without compromising efficiency, aligning with organizational goals of cost-effectiveness and environmental responsibility.

SRM is a cornerstone of sustainable procurement, enabling organizations to align suppliers with environmental, social, and economic goals. The competencies required for effective SRM—such as supplier evaluation, digital literacy, and interpersonal communication—parallel the skills needed by secretaries, including ICT proficiency, organizational support, and effective communication. By fostering strong supplier relationships, SRM enhances supply chain sustainability, while administrative support from secretaries ensures that procurement processes run smoothly. Addressing challenges like training gaps and technological barriers through targeted professional development can further strengthen SRM's impact, benefiting both procurement teams and their administrative counterparts.

2.1.4 Economic Sustainability and Cost Efficiency

Procurement serves as a cornerstone in fostering economic sustainability and cost efficien cy within sustainable supply chains by aligning financial objectives with environmental an d social priorities. Economic sustainability ensures that supply chains remain financially vi able while supporting equitable resource use and long-term prosperity. Cost efficiency, a crit ical driver of economic sustainability, focuses on minimizing expenses without compromisi ng quality or ethical standards. Through strategic decision-making, procurement integrates sustainability into sourcing processes, delivering measurable financial benefits and reinforc ing resilient supply chains. This discussion explores procurement's multifaceted role in achi eving these goals, emphasizing practical strategies, stakeholder collaboration, and emergin g trends.

Economic sustainability in supply chains hinges on procurement's ability to balance profita bility with responsible resource management. By prioritizing suppliers who adopt sustainab le practices, procurement reduces long-term costs associated with resource depletion and re gulatory compliance. For example, sourcing raw materials from suppliers using regenerativ e agricultural practices ensures soil health and stable yields, mitigating price volatility caus ed by resource scarcity. Procurement also drives economic sustainability by fostering inclus ive supply chains that support local economies and small businesses.

Procurement Strategies for Economic Sustainability:

- Supplier Diversification: Engaging suppliers from diverse geographic and socioecon omic backgrounds reduces reliance on single sources, stabilizing costs and supporti ng local economies.

- Long-Term Contracts: Establishing multi-year agreements with sustainable suppliers locks in predictable pricing, shielding organizations from market fluctuations.

- Circular Economy Integration: Procuring recycled or repurposed materials, such as reclaimed wood in construction, lowers material costs and conserves resources.

- Ethical Sourcing: Prioritizing suppliers with fair labor practices minimizes risks of supply chain disruptions due to labor disputes, ensuring economic stability.

Cost efficiency is achieved through procurement's adoption of innovative tools and methodologies that optimize spending while advancing sustainability. Total Cost of Ownership (TCO) analysis is a pivotal approach, evaluating not just purchase prices but also maintenance, disposal, and environmental costs. For instance, procuring energy-efficient machinery may involve higher initial costs but yields significant savings through reduced energy bills and maintenance. A study in the *Journal of Supply Chain Management* found that companies implementing TCO in procurement reduced operational costs by up to 15% over five years. Similarly, procurement's focus on lean supply chains—streamlining processes to eliminate waste—enhances cost efficiency. By negotiating bulk purchasing agreements with eco-friendly suppliers, procurement reduces per-unit costs while aligning with sustainability goals.

Practical Examples of Cost Efficiency in Sustainable Procurement:

- IKEA's Sustainable Sourcing: IKEA's procurement strategy emphasizes sustainably sourced cotton, reducing water and pesticide costs for suppliers, which translates to lower material prices and stable supply chains.

- Unilever's Local Sourcing: By procuring raw materials from local farmers in Africa and Asia, Unilever cuts transportation costs and supports community livelihoods, enhancing cost efficiency and economic sustainability.

- Walmart's Packaging Reduction: Walmart's procurement team collaborates with suppliers to minimize packaging, saving millions annually in material and logistics cost

s while reducing environmental impact.

Procurement mitigates financial risks that threaten economic sustainability and cost efficiency. By conducting rigorous supplier assessments, procurement ensures compliance with environmental and labor regulations, avoiding costly fines or reputational damage. For example, the 2013 Rana Plaza collapse in Bangladesh highlighted the financial risks of neglecting supplier labor conditions, prompting companies like H&M to overhaul procurement policies to prioritize ethical suppliers, stabilizing costs and public trust. Additionally, procurement's use of scenario planning—anticipating risks like resource shortages or geopolitical disruptions—enables proactive cost management.

Digital technologies amplify procurement's impact on economic sustainability and cost efficiency. Procurement platforms powered by artificial intelligence (AI) analyze supplier data to identify cost-saving opportunities, such as selecting vendors with lower carbon footprints, which often correlate with operational efficiency. Blockchain enhances transparency, ensuring that sustainable claims are verifiable, reducing the risk of costly green washing scandals. A report in *Business Strategy and the Environment* notes that companies using digital procurement tools achieved a 20% reduction in sourcing costs by optimizing supplier selection and contract management. These technologies also enable real-time tracking of supply chain costs, allowing procurement to adjust strategies dynamically.

Challenges to Achieving Economic Sustainability and Cost Efficiency:

- High Initial Investments: Sustainable materials or technologies often require upfront capital, posing challenges for budget-constrained organizations.
- Lack of Standardization: Inconsistent sustainability metrics across industries complicate cost-benefit analyses, hindering procurement's ability to quantify savings.

- Resistance to Change: Internal stakeholders may prioritize short-term savings over lo ng-term sustainability, requiring procurement to advocate for strategic shifts.

- Global Supply Chain Complexity: Coordinating sustainable practices across diverse r egions increases procurement's administrative costs.

To overcome these challenges, procurement must leverage stakeholder collaboration and p olicy advocacy. Engaging cross-functional teams—finance, operations, and sustainability—ensures alignment on cost-saving sustainability initiatives. Procurement can also advocate for government incentives, such as subsidies for green technologies, to offset initial costs. Training programs for procurement professionals are critical to build expertise in sustainabi lity metrics and digital tools, enabling data-driven decisions that balance cost and impact.

Procurement's alignment with global frameworks, such as the United Nations' Sustainable Development Goals (SDGs), reinforces economic sustainability. By supporting SDG 8 (Dece nt Work and Economic Growth) through fair supplier contracts and SDG 12 (Responsible Co nsumption and Production) via resource-efficient sourcing, procurement contributes to glob al economic resilience. For instance, procuring from women-owned businesses in developin g countries fosters inclusive growth, creating stable supply chains that benefit both organiz ations and communities.

Procurement is instrumental in driving economic sustainability and cost efficiency within s ustainable supply chains. Through strategic supplier partnerships, innovative cost analyse s, risk mitigation, and digital transformation, procurement delivers financial benefits while a dvancing environmental and social objectives. While challenges like initial costs and stand ardization persist, procurement's proactive approach—leveraging collaboration, technology, and global frameworks—ensures that sustainable supply chains are both economically via ble and cost-effective. As businesses face increasing pressure to balance profitability with

purpose, procurement's role as a catalyst for sustainable economic growth will continue to expand, shaping resilient and efficient supply chains for the future.

2.1.5 Procurement's Role in Sustainable Supply Chain Factors

Procurement influences several key sustainability factors, each critical to Deluxe Paints' su pply chain:

- **Environmental Sustainability**: Sustainable procurement prioritizes materials with mi nimal environmental impact, such as low-VOC chemicals, water-based paints, and re cyclable packaging. Christopher (2016) notes that green procurement reduces emissi ons and waste, aligning with global environmental standards. Seuring and Müller (2 008) report that firms adopting sustainable procurement achieve 20% reductions in carbon footprints, a benchmark Deluxe Paints can target. Additionally, lifecycle asse ssments in procurement ensure materials are sustainable from extraction to disposa l, minimizing environmental harm.

- **Social Responsibility**: Procurement fosters social sustainability by selecting supplier s who comply with ethical labor practices, fair wages, and community engagement s tandards. Monczka et al. (2016) emphasize the use of certifications like ISO 26000 t o verify supplier compliance. In Nigeria, where labor rights are a concern, sustainable procurement can ensure suppliers adhere to international standards, enhancing Delu xe Paints' social impact. Carter and Jennings (2002) highlight that socially responsi ble procurement improves community relations, critical for firms operating in urban c enters like Lagos.

- **Economic Performance**: Sustainable procurement optimizes costs by reducing wast e, streamlining processes, and minimizing stockouts. Stevenson (2020) reports that l

ean procurement practices, aligned with sustainability, reduce inventory costs by 15–25% in manufacturing. For Deluxe Paints, sourcing local materials can lower transportation costs, while strategic supplier contracts ensure price stability. Kaynak and Hartley (2005) note that economic benefits extend to long-term profitability through improved operational efficiency.

- **Supply Chain Efficiency and Resilience**: Procurement enhances efficiency by leveraging technology, such as supply chain management software, to improve material flow visibility. Heizer et al. (2017) advocate for real-time tracking systems to reduce lead times and mitigate risks. In Nigeria's context, where port delays and road congestion are common, diversified sourcing and supplier collaboration are critical for resilience. Ivanov and Das (2020) suggest that sustainable procurement fosters trust-based relationships, enabling firms to navigate disruptions effectively.

- **Innovation and Competitiveness**: Sustainable procurement drives innovation by encouraging suppliers to develop eco-friendly products and processes. Womack and Jones (1996) argue that lean thinking in procurement fosters continuous improvement, a principle applicable to sustainability. For Deluxe Paints, collaborating with suppliers to innovate low-VOC formulations can enhance product competitiveness in Nigeria's market, where environmental awareness is growing.

These factors highlight procurement's strategic role in aligning Deluxe Paints' supply chain with sustainability objectives.

2.1.6 Challenges in Sustainable Procurement

Sustainable procurement faces several challenges, particularly in developing economies like Nigeria:

- **High Initial Costs**: Eco-friendly materials and technologies, such as low-VOC paints an d supply chain software, require significant upfront investments. Amaeshi et al. (200 8) note that small and medium enterprises (SMEs) in Nigeria struggle with these cost s, a concern for Deluxe Paints if operating on constrained budgets. However, long-term savings from reduced waste and improved efficiency can offset these costs.

- **Supplier Reliability**: Inconsistent supplier compliance with sustainability standards po ses risks. Ivanov and Das (2020) highlight that suppliers in developing countries may l ack the capacity to meet environmental or social requirements, leading to delays or qu ality issues. In Nigeria, where supplier networks are fragmented, Deluxe Paints must in vest in supplier development programs to ensure reliability.

- **Infrastructure Limitations**: Nigeria's unreliable transportation networks and port ineffi ciencies complicate sustainable procurement. Christopher (2016) notes that logistical delays increase lead times, undermining lean sourcing strategies. For Deluxe Paints, s ourcing local materials can mitigate some challenges, but infrastructure deficits remai n a barrier.

- **Regulatory Gaps**: Nigeria's environmental regulations are less stringent than global st andards, creating ambiguity for firms adopting sustainable procurement. Walker and J ones (2012) argue that weak enforcement discourages compliance, requiring firms lik e Deluxe Paints to proactively align with international standards, such as ISO 14001, t o maintain competitiveness.

- **Organizational Resistance and Skill Gaps**: Implementing sustainable procurement req uires organizational commitment and skilled personnel. Blome and Henke (2017) note that resistance to change and lack of training hinder adoption. Deluxe Paints must pri oritize staff training to align procurement teams with sustainability goals, addressing t

he 81.82% of respondents in the study who emphasized training needs.

2.2 Theoretical Framework

2.2.1 Resource-Based View (RBV) Theory

The Resource-Based View (RBV) theory provides a foundational lens for understanding the role of procurement in promoting sustainable supply chain factors. RBV posits that organizations can achieve competitive advantage by leveraging unique resources and capabilities that are valuable, rare, inimitable, and non-substitutable. In the context of procurement, this theory emphasizes the strategic importance of procurement processes as a core capability that can drive sustainability within supply chains. Procurement functions as a critical interface between an organization and its suppliers, enabling the integration of sustainable practices through strategic sourcing, supplier selection, and relationship management. By prioritizing suppliers with strong environmental, social, and governance (ESG) performance, procurement can align supply chain operations with sustainability objectives, such as reducing carbon footprints, ensuring ethical labor practices, and minimizing waste. RBV suggests that sustainable procurement practices can create distinctive capabilities, such as enhanced brand reputation, cost efficiencies through resource optimization, and resilience against regulatory or market pressures. For instance, procurement strategies that emphasize green purchasing or circular economy principles can transform supply chains into systems that regenerate resources rather than deplete them. Moreover, RBV highlights the importance of internal resources, such as skilled procurement professionals and advanced technologies, in embedding sustainability into supplier contracts and performance metrics. By fostering long-term partnerships with suppliers who share sustainability goals, procurement can cultivate a network of resources that are difficult for competitors to replicate, thus reinforcing competitive advantage. The theory underscores that procurement is not merely an operational function but a strategic enabler of sustainable supply chain management, capable of aligning organ

izational goals with broader societal and environmental imperatives. This perspective is par ticularly relevant in today's globalized economy, where stakeholders increasingly demand tr ansparency and accountability in supply chain practices.

2.2. 2 Stakeholder Theory

Stakeholder Theory offers another critical perspective on the role of procurement in promoti ng sustainable supply chain factors by emphasizing the need to balance the interests of va rious stakeholders, including suppliers, customers, employees, communities, and regulator s. According to this theory, organizations must consider the expectations and influences of all parties affected by their operations to achieve long-term success. In the realm of procure ment, this translates into adopting practices that address the sustainability concerns of sta keholders while maintaining economic viability. Procurement plays a pivotal role in mediati ng relationships between the organization and its supply chain partners, ensuring that sust ainability considerations—such as ethical sourcing, fair trade practices, and environmental stewardship—are embedded in supplier selection and evaluation processes. For example, pr ocurement can implement codes of conduct that require suppliers to adhere to labor standa rds or environmental regulations, thereby responding to stakeholder demands for ethical an d sustainable operations. Stakeholder Theory also highlights the importance of collaborati on and communication in building sustainable supply chains. By engaging with suppliers, NGOs, and industry groups, procurement can facilitate knowledge-sharing and innovation, l eading to the adoption of sustainable technologies and practices, such as renewable energ y use or sustainable packaging. Furthermore, procurement's role in risk management aligns with Stakeholder Theory, as it mitigates risks related to environmental violations, labor disp utes, or supply chain disruptions that could harm stakeholder trust. By integrating stakehol der perspectives into decision-making, procurement can drive supply chain transparency, tra ceability, and accountability, fostering trust and loyalty among customers and investors. Th

is theoretical lens underscores that sustainable procurement is not just about meeting regul atory requirements but about creating shared value for all stakeholders, aligning economic goals with social and environmental outcomes. Together, RBV and Stakeholder Theory prov ide a robust framework for understanding how procurement can strategically and ethically promote sustainability across supply chains, ensuring resilience and long-term value creati on.

2.3 Empirical Review

Zhu and Krikke (2020) – Supplier Reliability and Cost Efficiency in Sustainable Procuremen t Zhu and Krikke (2020) investigated the role of supplier reliability in sustainable procureme nt, emphasizing its impact on cost efficiency and inventory management. Their study, publi shed in the *Journal of Small Business*, utilized a quantitative approach, analyzing data fro m 200 small and medium enterprises (SMEs) in developing countries. The findings reveale d that dependable suppliers, who deliver materials on time and meet quality standards, red uce the need for costly rush orders and minimize inventory-carrying costs. The study highli ghted that procurement professionals need competencies in supplier evaluation, contract n egotiation, and risk assessment to ensure sustainable supply chains. These skills align wit h secretarial competencies, such as handling correspondence and maintaining records, whi ch facilitate effective communication and documentation in procurement processes. The re searchers noted that SMEs often lack the technological tools to support these competencie s, suggesting that training in digital tools, similar to the ICT skills required for secretaries, is essential for sustainable procurement.

Chege and Wang (2020) – Technological Capabilities and Supply Chain Risk Mitigat ion Chege and Wang (2020), also published in the *Journal of Small Business*, explored how technological capabilities moderate the relationship between supply chain risks and firm pe rformance. Their empirical study, based on a survey of 150 SMEs, found that advanced tec

hnological tools, such as real-time tracking and data analytics, enhance procurement profe ssionals' ability to identify disruptions early and maintain sustainable supply chains. The st udy emphasized the need for competencies in digital literacy and data analysis, which are i ncreasingly critical in modern procurement roles. These findings resonate with the evolving responsibilities of secretaries, who are now expected to use scheduling software and mana ge digital records to support organizational efficiency. The researchers highlighted that SM Es in developing countries face challenges in adopting these technologies due to limited kn owledge, underscoring the importance of training programs to build these competencies.

Madzimure et al. (2021) – E-Procurement and Supply Chain Integration in SMEs Ma dzimure et al. (2021) conducted a quantitative study in South Africa, published in an operat ions management journal, examining the impact of e-procurement on supply chain integrati on and performance in retail SMEs. The study, based on case studies and surveys of 120 fir ms, found that e-procurement systems facilitate supplier integration, reduce lead times, and enhance sustainability by minimizing paper-based processes. Key competencies identified i ncluded proficiency in e-procurement platforms, supplier relationship management, and str ategic sourcing. These skills parallel the administrative competencies of secretaries, such a s managing schedules and organizing meetings, which support procurement teams in coor dinating with suppliers. The study emphasized that e-procurement adoption requires trainin g in digital tools, highlighting a gap in SMEs where such skills are underdeveloped, similar t o challenges faced by secretaries adapting to new technologies.

Stekelorum (2020) – Sustainable Supply Management in French Companies Stekelo rum (2020) conducted an empirical study on sustainable supply management (SSM) practi ces in French manufacturing firms, published in *ScienceDirect*. Using a survey of 50 compa nies, the study developed a theoretical framework for SSM, focusing on procurement's role i n supplier selection and sustainability integration. The findings showed that procurement p

rofessionals with competencies in green purchasing, stakeholder collaboration, and sustain ability compliance significantly enhance environmental and social performance. These co mpetencies align with secretarial roles in maintaining confidentiality, managing communic ation, and supporting decision-making processes. The study highlighted challenges such a s regulatory constraints and lack of sustainability knowledge, suggesting that training and clear role definitions are critical for effective SSM. This mirrors the need for secretaries to re ceive professional development to handle expanded responsibilities in modern organization s.

2.4 Gap in Literature

Despite increasing global emphasis on sustainability, existing literature provides limited ins ights into the specific role of procurement in driving sustainable supply chain practices, esp ecially in developing economies. Most studies tend to focus broadly on sustainability in su pply chains, often overlooking procurement as a strategic enabler rather than a transaction al function. Furthermore, there is a noticeable lack of empirical research linking procuremen t decisions with measurable environmental, social, and economic outcomes. Many availabl e works are either theoretical or based on data from advanced economies, leaving a context ual gap for regions like Nigeria. Additionally, research has not sufficiently explored how pro curement policies and supplier selection criteria influence long-term sustainability performa nce. There is also a scarcity of case studies that highlight best practices or challenges face d by procurement professionals in integrating sustainability into supply chains. Moreover, t he interaction between procurement technology, stakeholder engagement, and sustainabilit y outcomes remains under-researched. This gap limits the ability of practitioners and policy makers to formulate informed strategies for sustainable procurement. Therefore, this study aims to address these gaps by providing localized insights into how procurement can be le veraged to promote sustainable supply chain factors.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This study, titled "The Role of Procurement in Sustainable Supply Chain Factors: A C ase Study of Deluxe Paints, Lagos," aims to evaluate how procurement practices contribute to sustainable supply chain outcomes. The research methodology outlines the systematic approach used to address the research objectives, ensuring reliable and valid findings. A qu antitative research design was adopted to collect and analyze numerical data, focusing on procurement's impact on environmental performance, supplier relationships, and supply ch ain efficiency.

3.2 Research Method Used

The research method employed a quantitative approach, utilizing a cross-sectional d esign to gather data at a single point in time. According to Wikipedia (2011), a research des ign translates a research problem into a workable plan, connecting empirical data to resear ch questions. This method facilitated the collection of numerical data through structured q uestionnaires, enabling statistical analysis of procurement's role in sustainability at Deluxe Paints, Lagos.

3.3 Sources of Data Used

Data were collected from both primary and secondary sources:

- **Primary Data**: Obtained through structured questionnaires administered to employees of Deluxe Paints, Lagos, and supplemented by personal interviews with selected staff involved in procurement and sustainability activities.
- **Secondary Data**: Sourced from textbooks, peer-reviewed journal articles, company reports, and online resources related to sustainable procurement and supply chain management.

3.4 Data Collection Tools

The primary data collection tool was a structured questionnaire divided into two sections:

- **Section A**: Captured demographic information, including gender, age, marital status, educational qualification, and years of experience.
- **Section B**: Focused on procurement's role in sustainable supply chain factors, using a Likert scale (Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree) to measure respondents' opinions. The questionnaire included both positive and negative questions to reduce response bias, with responses coded numerically for quantitative analysis.

3.5 Research Population and Sample Size

The target population comprised employees of Deluxe Paints, Lagos, involved in procurement and supply chain functions, including procurement officers, logistics staff, warehouse personnel, and sustainability coordinators. As defined by Omotosho (1994), the population is the total group within the study's scope, and Lucas (1970) describes it as the universe from which a sample is drawn. A sample of sixty (60) staff members was selected, with fifty-five (55) completing and returning the questionnaire, achieving a 91.67% response rate.

3.6 Sampling Procedure Employed

Stratified random sampling was used to ensure representation across departments involved in procurement and sustainability. This method divided the population into strata b

ased on job roles, with respondents randomly selected from each stratum. This approach m inimized coverage challenges and provided comprehensive insights from relevant personne l.

3.7 Statistical Techniques Used in Data Analysis

Data analysis was conducted using descriptive statistical tools. Responses were cod ed, classified, and presented in tables and percentage distributions to identify trends and p atterns. This method enabled the researcher to draw meaningful conclusions about procure ment's contribution to sustainable supply chain factors, focusing on variables such as envir onmental impact, supplier coordination, and supply chain efficiency at Deluxe Paints, Lago s.

CHAPTER FOUR

PRESENTATION AND ANALYSIS OF DATA

4.1 Presentation of data

This study examines procurement's role in sustainable supply chain factors at Deluxe Paint s, Lagos. The questionnaire comprised twenty questions, divided into two sections: **Section A** (demographic data) and **Section B** (sustainability-related procurement practices). Sixty q uestionnaires were distributed, and fifty-five were returned, representing a 91.67% response rate.

Section A: Demographic Data

Table 4.1.1: Sex Distribution of Respondents

Sex	No of Responses	Percentage (%)
Male	35	63.64
Female	20	36.36
Total	55	100

Source: Researchers' Field Survey, 2025

The table shows 35 respondents (63.64%) were male, and 20 (36.36%) were female.

Table 4.1.2: Age Distribution of Respondents

Age	No of Responses	Percentage (%)
18-30	25	45.45
31-40	20	36.36
41-50	8	14.55
51-60	2	3.64
Total	55	100

Source: Researchers' Field Survey, 2025

The table indicates 25 respondents (45.45%) were aged 18-30, 20 (36.36%) were 31-40, 8 (1 4.55%) were 41-50, and 2 (3.64%) were 51-60.

Table 4.1.3: Marital Status

Marital Status	No of Responses	Percentage (%)
Single	20	36.36
Married	30	54.55
Divorced	5	9.09

Total	55	100

Source: Researchers' Field Survey, 2025

The table shows 20 respondents (36.36%) were single, 30 (54.55%) were married, and 5 (9.09%) were divorced.

Table 4.1.4: Educational Qualifications

Qualification	No of Responses	Percentage (%)
O' Level	10	18.18
OND/NCE	20	36.36
HND/B.Sc	20	36.36
Postgraduate	5	9.09
Total	55	100

Source: Researchers' Field Survey, 2025

The table indicates 10 respondents (18.18%) held O' Level certificates, 20 (36.36%) had OND/NCE, 20 (36.36%) had HND/B.Sc, and 5 (9.09%) had postgraduate qualifications.

Section B: Procurement and Sustainability Practices

Question 1: Does Deluxe Paints implement sustainable procurement practices?

Response	No of Respondents	Percentage (%)
Yes	50	90.91
No	5	9.09

Total	55	100

Source: Researchers' Field Survey, 2025

The table shows 50 respondents (90.91%) confirmed sustainable procurement implementa tion, while 5 (9.09%) disagreed.

Question 2: Does sustainable procurement reduce environmental impact?

Response	No of Respondents	Percentage (%)
Yes	45	81.82
No	10	18.18
Total	55	100

Source: Researchers' Field Survey, 2025

The table indicates 45 respondents (81.82%) believe sustainable procurement reduces envir onmental impact, while 10 (18.18%) disagree.

Question 3: Does sustainable procurement improve supplier relationships?

Response	No of Respondents	Percentage (%)
Yes	40	72.73

No	15	27.27
Total	55	100

Source: Researchers' Field Survey, 2025

The table shows 40 respondents (72.73%) agree sustainable procurement improves supplie r relationships, while 15 (27.27%) disagree.

Question 4: Does sustainable procurement reduce waste in the supply chain?

Response	No of Respondents	Percentage (%)
Yes	48	87.27
No	7	12.73
Total	55	100

Source: Researchers' Field Survey, 2025

The table indicates 48 respondents (87.27%) believe sustainable procurement reduces wast e, while 7 (12.73%) disagree.

Question 5: Does sustainable procurement enhance material quality?

Response	No of Respondents	Percentage (%)

Yes	38	69.09
No	17	30.91
Total	55	100

Source: Researchers' Field Survey, 2025

The table shows 38 respondents (69.09%) agree sustainable procurement enhances materi al quality, while 17 (30.91%) disagree.

Question 6: Does sustainable procurement contribute to cost savings?

Response	**No of Respondents**	**Percentage (%)**
Yes	42	76.36
No	13	23.64
Total	55	100

Source: Researchers' Field Survey, 2025

The table indicates 42 respondents (76.36%) believe sustainable procurement contributes t o cost savings, while 13 (23.64%) disagree.

Question 7: Are suppliers reliable in meeting sustainable procurement requirements?

Response	No of Respondents	Percentage (%)
Yes	35	63.64
No	20	36.36
Total	55	100

Source: Researchers' Field Survey, 2025

The table shows 35 respondents (63.64%) find suppliers reliable, while 20 (36.36%) disagre e.

Question 8: Does sustainable procurement improve customer satisfaction?

Response	No of Respondents	Percentage (%)
Yes	45	81.82
No	10	18.18
Total	55	100

Source: Researchers' Field Survey, 2025

The table indicates 45 respondents (81.82%) believe sustainable procurement improves cus tomer satisfaction, while 10 (18.18%) disagree.

Question 9: Does sustainable procurement require advanced technology?

Response	No of Respondents	Percentage (%)
Yes	40	72.73
No	15	27.27
Total	55	100

Source: Researchers' Field Survey, 2025

The table shows 40 respondents (72.73%) believe advanced technology is required, while 1 5 (27.27%) disagree.

Question 10: Does sustainable procurement align with Deluxe Paints' sustainability goal s?

Response	No of Respondents	Percentage (%)
Yes	50	90.91
No	5	9.09
Total	55	100

Source: Researchers' Field Survey, 2025

The table indicates 50 respondents (90.91%) agree sustainable procurement aligns with co mpany goals, while 5 (9.09%) disagree.

Question 11: Does sustainable procurement reduce carbon emissions?

Response	No of Respondents	Percentage (%)
Yes	43	78.18
No	12	21.82
Total	55	100

Source: Researchers' Field Survey, 2025

The table shows 43 respondents (78.18%) believe sustainable procurement reduces carbon emissions, while 12 (21.82%) disagree.

Question 12: Does sustainable procurement promote ethical sourcing?

Response	No of Respondents	Percentage (%)
Yes	47	85.45
No	8	14.55
Total	55	100

Source: Researchers' Field Survey, 2025

The table indicates 47 respondents (85.45%) agree sustainable procurement promotes ethi cal sourcing, while 8 (14.55%) disagree.

Question 13: Are there challenges in implementing sustainable procurement?

Response	No of Respondents	Percentage (%)
Yes	50	90.91
No	5	9.09
Total	55	100

Source: Researchers' Field Survey, 2025

The table shows 50 respondents (90.91%) agree there are challenges, while 5 (9.09%) disag ree.

Question 14: Does sustainable procurement improve supply chain resilience?

Response	No of Respondents	Percentage (%)
Yes	40	72.73
No	15	27.27