Supply Chain Management Practices and Resource Optimization: A Study of Dangote Refinery in Nigeria

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Abstract
This study explores the relationship between Supply Chain Management (SCM) practices on resource optimization at Dangote Refinery in Nigeria. SCM plays a crucial role in optimizing procurement, inventory management, transportation, and distribution processes, contributing to operational efficiency and economic sustainability. Despite significant challenges such as poor infrastructure, regulatory constraints, and market volatility, the refinery has made notable strides in implementing SCM practices that enhance resource optimization and reduce operational costs. Through the use of a descriptive survey research design, this study investigates the effectiveness of these SCM practices in improving supply chain performance within 90 employees of Dangote Refinery. Descriptive and inferential statistics were used to analyze the data, employing SPSS Version 2.5 as the primary tool for data processing. The Person product correlation coefficient was conducted to examine relationships between SCM practices and resource optimization but face limitations due to external challenges. Findings suggested that SCM practices at Dangote Refinery have positively influenced resource optimization but face limitations due to external challenges. Recommendations for improvement include infrastructure development, capacity building, strategic supplier partnerships, and policy advocacy to overcome these challenges and fully harness the potential of SCM practices.
Keywords: Supply chain, Resource Optimisation, Procurement Practices, Inventory Management

Introduction

Supply Chain Management (SCM) has emerged as a pivotal function within organizations, focusing on the effective coordination of processes that ensure the smooth flow of goods, information, and finances across the supply chain (Nwosu *et al.*, 2024). In competitive industries like oil and gas, optimizing SCM practices is essential to maintain efficiency, control costs, and meet fluctuating demands. Effective SCM contributes to resource optimization, ensuring that assets, personnel, and time are maximized while minimizing waste and inefficiencies (Adamu & Akinwumi, 2024). Resource optimization within SCM is especially critical for large-scale projects, where intricate logistics, diverse stakeholder needs, and cost constraints require precise management strategies.

Advocates of SCM practices argue that these practices play a pivotal role in enhancing sustainability by reducing operating costs and minimizing environmental impact through optimized logistics and lean operations (Ifeanyi *et al.*, 2023). For instance, the Dangote Refinery's focus on robust SCM practices aims to mitigate supply chain disruptions that are prevalent in the oil and gas sector, which can stabilize the refinery's output and reduce Nigeria's dependency on imported petroleum products (Adewuyi *et al*., 2024). By ensuring consistent supply and reducing the risk of production delays, SCM practices enable organizations to achieve sustainable economic

growth, improve job creation, and support local supply chains, thereby enhancing economic resilience.

However, critics argue that the implementation of SCM practices in Nigeria's oil sector, including at the Dangote Refinery, faces significant obstacles, such as infrastructural deficiencies, regulatory challenges, and high operational costs (Okeke & Nnaji, 2024). Opponents highlight that while SCM practices are theoretically advantageous, in practice, they lead to economic sustainability in volatile markets. The oil industry, in particular, is prone to disruptions from fluctuating global oil prices and political instability, which undermines the benefits of even well-planned SCM practices (Chukwu & Obasi, 2024). Furthermore, some argue that the high cost of implementing advanced SCM systems in Nigeria outweighs the potential benefits, especially for oil marketers who operate on thinner profit margins compared to larger corporations like the Dangote Refinery (Olaniyi *et al.,* 2024).

For instance, the Nigerian Economic Summit Group (NESG) said that 65% of Nigerian companies, including those in the oil sector, experience frequent delays and increased costs due to poor infrastructure, such as road networks and port inefficiencies (NESG, 2023). These infrastructural challenges undermine the benefits of SCM practices by causing delays in logistics and inventory management, supporting Chukwu and Obasi's (2024) view that SCM benefits are often negated by systemic issues.

A 2023 report by the International Energy Agency (IEA) suggests that, while SCM practices enhance economic sustainability, the Nigerian oil sector remains highly sensitive to global oil price fluctuations. In 2023 alone, global price volatility resulted in an estimated 8% decline in revenue for oil marketers in Nigeria, underscoring the risks of relying on SCM for economic sustainability in volatile sectors (IEA, 2023).

While there is a strong argument for the positive impact of SCM practices on resource optimization, particularly in large-scale projects like the Dangote Refinery, there remain valid concerns about the challenges to successful implementation in Nigeria's oil sector. This study examines the SCM practices investigates how SCM practices at the Dangote Refinery contribute to resource optimization, examining key processes such as procurement, inventory management, transportation, and distribution. By focusing on the resource optimization strategies in place, this study highlights the ways in which effective SCM practices contribute to project success in large-scale, high-stakes environments.

The broad objective of this study is to examine the impact of Supply Chain Management (SCM) practices on economic sustainability within Dangote Refinery. Specifically, the study is:

i. To examine the relationship between Supply Chain Management (SCM) practices and procurement practices in Dangote Refinery in Nigeria.
ii. To assess the challenges associated with implementing SCM practices in achieving inventory management in Dangote Refinery

Statement of the Problem

Despite the recognized benefits of Supply Chain Management (SCM) in promoting resource optimization, the implementation of these practices in Nigeria's oil and gas sector, particularly within large-scale projects like the Dangote Refinery, is fraught with significant challenges. Advocates argue that SCM practices enhance sustainability, reduce operational costs, and mitigate environmental impact through streamlined logistics and lean operations (Ifeanyi et al., 2023). In theory, these practices stabilize output, reduce reliance on imported petroleum products, and

contribute to Nigeria's resilience by supporting local supply chains and fostering job creation (Adewuyi *et al*., 2024). However, the practical realization of these benefits is hindered by infrastructural deficiencies, regulatory hurdles, and high operational costs that undermine the effectiveness of SCM strategies in Nigeria (Okeke & Nnaji, 2024).

Critics point out that infrastructural challenges, such as inadequate road networks and inefficient ports, delay logistics and inflate inventory management costs, reducing the anticipated advantages of SCM (NESG, 2023). Additionally, global price fluctuations and political instability create uncertainties in Nigeria's oil sector, complicating SCM implementation and reducing its impact on sustainability (Chukwu & Obasi, 2024). This research investigates the SCM practices at the Dangote Refinery and examines how these practices contribute to resource optimization amid Nigeria's challenging operating environment. By assessing procurement, inventory management, transportation, and distribution strategies, this study aims to identify the resource optimization mechanisms in place and evaluate their effectiveness in promoting project success within a high-stakes, resource-intensive industry. Understanding these dynamics is critical to developing strategies that enhance the performance of large-scale oil and gas projects in Nigeria.

Hypotheses

Ho_1. There is no significant relationship between Supply Chain Management practices and procurement practices in Dangote Refinery in Nigeria.

Ho_2. Challenges in implementing Supply Chain Management practices do not significantly affect inventory management in Dangote Refinery.

Conceptual Clarification

Supply Chain Management (SCM)

Supply Chain Management (SCM) involves the efficient integration of suppliers, manufacturers, warehouses, and distributors to produce and deliver products effectively, from raw materials to the end consumer. At its core, SCM emphasizes maximizing customer value and achieving sustainable competitive advantage (Christopher, 2022). In recent years, advancements in digitalization and data analytics have further transformed SCM, enabling companies to adopt responsive and lean practices that not only streamline operations but also enhance adaptability in dynamic markets (Johnson & Templar, 2024). This modern approach to SCM integrates various processes, including procurement, logistics, and inventory management, to optimize the flow of goods and information across the supply chain. The emphasis on efficiency, cost-effectiveness, and flexibility has made SCM a vital component of organizational success, especially as companies face increased pressure to meet consumer demands in a timely and sustainable manner (Heizer *et al*., 2024).

SCM practices are also essential in addressing contemporary business challenges. Organizations that implement SCM strategies often experience benefits such as reduced lead times, minimized waste, and enhanced customer satisfaction. These outcomes are not only beneficial for operational performance but also play a role in fostering economic sustainability (Sarkis & Zhu, 2023). Furthermore, by adopting SCM practices, firms can align their operations with broader sustainability goals, including resource conservation and responsible sourcing, thus contributing to long-term economic and environmental resilience (Gopal & Thakur, 2023).

Challenges Associated with Implementing SCM Practice

Implementing Supply Chain Management (SCM) practices presents numerous challenges, especially in complex and large-scale organizations such as Dangote Refinery. The initial setup

hinders by legacy systems, lack of technical expertise, and high capital costs, making this a significant challenge (Olaniyi *et al*., 2024). According to Chukwuemeka *et al* (2024), a lack of proper coordination between internal teams and external suppliers result in delays, inventory shortages, and suboptimal performance. Fostering collaboration within large and diverse teams can be a slow and resource-intensive process (Olanrewaju *et al*., 2023).

Adigwe *et al* (2024), submitted that employees at all levels resist new processes, systems, and workflows due to fear of job loss, uncertainty about new technologies, or a general preference for the status quo. In the case of Dangote Refinery, where employees may be accustomed to established procedures, introducing new SCM practices may face significant pushback. Organizational culture plays a crucial role in how effectively SCM practices are adopted. If the organizational culture does not encourage innovation, continuous improvement, and adaptability, SCM implementation can be delayed or even fail (Ibeh *et al.*, 2024).

Resource Optimization

Resource optimization is the strategic management and allocation of an organization's resources—including finances, personnel, materials, and time—to maximize efficiency and productivity while minimizing waste and costs (Male, 2024). In industries such as oil and gas, where complex supply chains and high operational costs are prevalent, optimizing resources is critical to maintain competitive advantage and ensure sustainable growth. Effective resource optimization involves employing data-driven approaches, automation, and strategic planning to align resources with demand, reduce redundancies, and enhance the reliability and responsiveness of the supply chain. With the refinery's extensive production demands, optimizing resources across procurement, logistics, and inventory management is essential to stabilize production, manage costs, and reduce environmental impacts. By enhancing SCM practices for resource optimization, the Dangote Refinery aims to mitigate supply chain disruptions, improve production continuity, and contribute to Nigeria's economic resilience through localized production capabilities.

Procurement Practices in Dangote Refinery in Nigeria

Procurement is an essential component of any organization. Robust procurement practices lead to cost savings, enhanced efficiency, and better supplier relationships, others highlight potential challenges such as lack of transparency, inefficiency, and vulnerability to market fluctuations. According to Osei-Tutu *et al* (2023), strategic sourcing, which involves identifying the most competitive suppliers and negotiating favorable terms, significantly reduce operational costs. This is particularly important in large-scale operations like Dangote Refinery, where bulk procurement and long-term supplier contracts play a crucial role in managing costs. Moreover, procurement practices such as just-in-time (JIT) inventory management, as noted by Kumar and Haldar (2024), help reduce inventory holding costs and ensure that capital is not tied up in unnecessary stock, thus improving the organization's cash flow.

Effective procurement practices foster strong relationships with suppliers, ensuring the reliability of supply chains. Dangote Refinery's focus on supplier partnerships and local sourcing aligns with the findings of Chukwuemeka *et al* (2024), who argued that collaborative relationships with suppliers leads to better product quality, timely delivery, and flexibility in times of market volatility. These long-term relationships can also lead to mutually beneficial outcomes, where suppliers understand the specific needs of the refinery and can offer tailored services that improve overall operational efficiency. Alhassan *et al* (2023), who suggest that ethical procurement practices can improve a company's public image and contribute to long-term profitability. These

practices, they argue, can also minimize risks associated with environmental regulations and potential legal challenges.

Despite the benefits, procurement practices are not without their challenges. Adebayo *et al* (2023), non-transparent procurement processes can lead to corruption, favoritism, and mismanagement of resources. This can be a significant issue in the Nigerian context, where procurement practices in both public and private sectors have been marred by allegations of fraud and unethical behavior. Lack of transparency may undermine the credibility of procurement decisions and lead to poor supplier performance. Obinna and Ikpe (2023) highlight the risks associated with relying on a limited number of suppliers, such as price volatility, changes in market conditions, and geopolitical instability. For example, Dangote Refinery's reliance on specific suppliers for raw materials could lead to significant disruptions in operations if these suppliers face financial difficulties or external challenges. According to Olanrewaju *et al* (2023), bureaucracy, inadequate training, and lack of coordination between procurement teams can lead to delays and inefficiencies, particularly in large companies with diverse operations. These inefficiencies can result in poor decision-making, increased operational costs, and delayed project timelines, which undermine the overall effectiveness of procurement practices.

Empirical Review of Literature

Olawore *et al* (2023) examined the effect of supply chain disruptions on market performance of selected Oil and gas marketing companies in Lagos using stratified random sampling method. The study revealed that the three independent variables studied accounted for 4.8% of the market performance. The study recommended that oil and gas marketing companies should increase commitment to adopting scenario planning and supply chain mapping strategies in order to accomplish better performance.

Oisamoje and Areloegbe (2014) carried out a study on Supply chain management and completion of Petroleum projects in Nigeria using Nigeria Petroleum Development Company as a case study. Their study sort to know how project completion depends on supply chain management of which procurement is an essential subset and proxy. The study employed the use of questionnaire while the statistical package of social sciences was used to analyse the result through Chi Squire test. The research revealed that strict adherence to SCM practices will facilitate prompt completion of petroleum projects with its attendant benefits to the stakeholders.

Akintokunbo and Arimie (2021) argued that the oil and gas industry in Nigeria offers a classic model for changing the competition game through a lean, innovative and environmentally sustainable integrated supply chain management system. They noted that today's competition is no longer between organizations but among supply chain that compete to reduce cost of acquisition, production, logistics and warehousing along the chain while delivering customers products and services of quality, at the right place and creating value throughout the chain.

Methods

This study adopted a descriptive survey research design to examine the impact of Supply Chain Management (SCM) practices on resource optimization at the Dangote Refinery. The stratified random sampling technique was employed to ensure a representative sample from various departments within the refinery, such as procurement, logistics, inventory management, and distribution. The target population includes 90 employees comprises of managers, supervisors, and

operational staff within procurement, logistics, inventory management, and distribution departments. The entire 90 employee forms the sample size since the population is relatively small. A structured questionnaire was administered to collect quantitative data on SCM practices, resource optimization efforts, and challenges. Descriptive and Inferential Statistics was used to analyze the data, employing SPSS Version 25 as the primary tool for data processing. The Pearson product correlation coefficient was conducted to examine relationships between SCM practices and resource optimization.

Analysis and Findings

Data Presentation

Table 1 shows the distribution of responses for each Likert scale item with the responses (**SA**, **A**, **SD**, **D**, **UN**) arranged on the horizontal axis.

Table 1: Univariate Analysis

Items	SA	A	SD	D	UN
Effective Supply Chain Management practices contribute significantly to improving procurement efficiency.	43	25	9	8	5
Challenges in implementing SCM practices negatively affect procurement processes at Dangote Refinery.	31	35	12	9	3
Integrating robust SCM strategies enhances the overall effectiveness of procurement practices.	30	36	4	15	5
There is a clear, measurable relationship between SCM practices and procurement outcomes.	34	43	8	2	3

Source: SPSS Ver. 25, 2025

Across all the questions, the majority of respondents either strongly agreed or agreed, with combined positive responses ranging from 73.3% to 85.6%. This reflects robust support for the hypothesis that Supply Chain Management (SCM) practices significantly influence procurement and inventory processes in Dangote Refinery. The responses indicating disagreement or neutrality were relatively low, suggesting that negative or undecided perceptions are uncommon among the participants. Notably, Question 4 garnered the highest level of agreement, with 85.6% of respondents expressing confidence in the positive impact of SCM practices on this specific aspect of the study. Overall, the distribution of responses provides clear evidence that effective SCM practices are widely perceived as having a significant and positive influence on procurement and inventory processes within Dangote Refinery.

Ho1: There is no significant impact of Supply Chain Management practices on Procurement Practices in the Dangote Refinery in Nigeria.

Table 1: Pearson Correlation Between Supply Chain Management and Procurement Practices

Variables	Correlation Coefficient (r)	Sig. (2-tailed)	N
Supply Chain Management	**1.00**	**-**	**90**
Procurement Practice	**0.342****	**0.00**	**90**

Source: SPSS Version 25, 2024 Note: Correlation is significant at the 0.01 level (2-tailed).

The Pearson Product-Moment Correlation Coefficient (r) value of 0.342 indicates a positive but moderate relationship between Supply Chain Management practices and Procurement Practices. The p-value (0.000) is less than the 0.05 significance level, suggesting that the relationship is

statistically significant. Therefore, the null hypothesis (Ho1) is rejected, indicating that Supply Chain Management practices significantly influence Procurement Practices in Dangote Refinery. The findings demonstrate that effective Supply Chain Management practices contribute positively to improving procurement practices. This relationship highlights the importance of integrating robust supply chain strategies to optimize procurement processes and efficiency within the refinery.

Ho2: Challenges in implementing Supply Chain Management practices do not significantly affect Inventory Management in Dangote Refinery.

Table 2: Pearson Correlation Between Challenges in Implementing SCM Practices and Inventory Management

Variables	Correlation Coefficient (r)	Sig.(2-tailed)	N
Challenges in SCM Practices	**1.00**	**-**	**90**
Inventory Management	**0.290**	**0.000**	**90**

Source: SPSS Version 25, 2024. Correlation is significant at the 0.01 level (2-tailed).

The Pearson correlation coefficient (r = 0.290) indicates a positive but weak relationship between the challenges in implementing Supply Chain Management practices and Inventory Management. The p-value (0.000) is less than the 0.05 significance threshold, suggesting that the relationship is statistically significant. The null hypothesis (Ho2) is rejected, as the findings indicate that challenges in implementing Supply Chain Management practices significantly affect Inventory Management in Dangote Refinery. Although the correlation is weak, it underscores the importance of addressing implementation barriers in SCM practices to improve inventory management processes.

Summary of Findings

Ho1: The positive and statistically significant correlation between SCM practices and procurement practices leads to the rejection of the null hypothesis. This suggests that improvements in SCM positively impact procurement practices at Dangote Refinery. This suggests that an effective SCM system—focused on integration, information sharing, and collaboration—can streamline procurement activities by ensuring better forecasting, supplier coordination, and inventory management (Jespersen & Skjøtt-Larsen, 2021). Efficient procurement, supported by robust SCM practices, helps organizations like Dangote Refinery optimize their sourcing decisions, reducing lead times and improving delivery reliability, which is essential for meeting production demands and reducing operational costs (Chong *et al*., 2022).

Efficient procurement processes help in identifying cost-effective suppliers, negotiating better terms, and reducing unnecessary procurement costs (Koumanakos, 2020). This aligns with findings from various studies suggesting that effective SCM practices lead to better resource allocation, both in terms of financial resources and physical inventory management (Christopher, 2016). Therefore, the positive impact of SCM on procurement practices could directly contribute to the overall cost-efficiency of Dangote Refinery

Ho2: The significant correlation between SCM practices and inventory management also leads to the rejection of the null hypothesis, indicating that challenges in SCM implementation are still associated with improvements in inventory management. For example, Monczka *et al* (2022) argue that an effective SCM system helps improve inventory visibility and optimize stock levels by enhancing communication across the supply chain. Similarly, Jiang *et al* (2022) found that SCM

practices, such as supplier integration and demand forecasting, are critical in managing inventory more efficiently, even in the face of operational challenges. These findings are consistent with the results of the current study, reinforcing the importance of SCM in driving improvements in inventory management. Effective SCM practices, such as demand forecasting, order management, and inventory tracking, are key to maintaining optimal inventory levels, reducing stockouts, and minimizing excess stock (Christopher, 2016). Efficient inventory management ensures that the right amount of inventory is available at the right time, reducing storage costs and minimizing waste (Koumanakos, 2020).

Conclusion

This study examines the impact of Supply Chain Management (SCM) practices on resource optimization at Dangote Refinery, highlighting the relationship between effective SCM and the optimization of procurement and inventory management. The findings indicate that SCM practices at the refinery significantly contribute to resource optimization by streamlining procurement activities, reducing inventory holding costs, and improving logistical efficiency. However, challenges such as infrastructural deficiencies, regulatory constraints, and market volatility continue to hinder the full realization of SCM benefits. The study also emphasizes the importance of strategic procurement and supplier relationships in mitigating supply chain disruptions, which are crucial for sustaining production and enhancing operational efficiency. While SCM practices at Dangote Refinery have fostered economic sustainability and operational resilience, further improvements are needed to address external challenges and maximize their potential.

Recommendations

Based on the findings of the study, the following recommendations are made:

i. Investment in modernizing road networks, ports, and digital infrastructure is essential to minimize logistical delays and enhance the efficiency of SCM practices at the Dangote Refinery.
ii. Providing training programs for employees at all levels will foster greater acceptance of new SCM technologies and systems, enhancing the overall effectiveness of these practices.
iii. Expanding collaborations with local suppliers and fostering long-term relationships with key stakeholders can further optimize procurement practices and mitigate risks from external disruptions.
iv. Stakeholders should advocate for regulatory reforms that support the seamless implementation of SCM practices in Nigeria's oil and gas sector, reducing bureaucratic obstacles and enhancing the business climate.

References

Adamu, S., & Akinwumi, T. (2024). Resource optimization in supply chain management: Enhancing efficiency in large-scale projects. *Journal of Supply Chain Optimization,* 12(3), 45-60.

Adebayo, F., Akinyemi, O., & Balogun, S. (2023). Transparency in procurement practices: A review of ethical challenges in Nigerian industries. *International Journal of Business Ethics,* 15(3), 220-234.

Adewuyi, A. M., Okeke, C., & Nnaji, I. (2024). Supply chain management in the Nigerian oil and gas sector: The Dangote Refinery case. *Journal of Energy Economics,* 28(2), 110-126.

Adigwe, O., Nwoye, I., & Olowookere, E. (2024). Organizational culture and resistance to change: Addressing challenges in SCM implementation at Dangote Refinery. *Journal of Supply Chain Management,* 41(2), 125-138.

Akintokunbo,O.O., & Arimie,B.E.(2021). Supply chain management: A game changer in the Oil and Gas industry in Nigeria,A review literature. *International Journal of Supply chain and logistics* 5(3), 54-68. https://doi.org/10.47941/ijscl.729.

Alhassan, A., Ibrahim, A., & Osei-Tutu, R. (2023). The role of ethical procurement in improving operational efficiency and corporate image. *Journal of Business Research and Development*, 19(4), 182-196.

Chong, A., Ng, K., & Wang, K. (2022). The role of supply chain management practices in enhancing procurement efficiency: Evidence from large-scale manufacturing. *Journal of Purchasing and Supply Management*, 28(3), 157-170. https://doi.org/10.1016/j.pursup.2022.100738.

Christopher, M. (2016). *Logistics and supply chain management* (5th ed.). Pearson Education.

Christopher, M. (2022). *Logistics and supply chain management* (6th ed.). Pearson Education.

Chukwu, O., & Obasi, F. (2024). Challenges to supply chain management in volatile markets: A critical review of Nigeria's oil sector. *International Journal of Supply Chain Studies*, 15(1), 72-88.

Chukwu, S., & Obasi, A. (2024). Economic sustainability and the volatility of oil prices: SCM challenges in the Nigerian oil sector. *International Journal of Energy Economics*, 12(1), 87-98.

Chukwuemeka, O., Chike, O., & Ogunwande, K. (2024). Coordination in large-scale supply chains: Addressing delays and inventory issues at Dangote Refinery. *Supply Chain and Logistics Review*, 8(2), 60-74.

Gopal, P., & Thakur, M. (2023). Sustainable supply chain management practices: A case study of the oil and gas industry. *International Journal of Sustainable Development*, 27(1), 43-58.

Heizer, J., Render, B., & Munson, C. (2024). *Operations management* (13th ed.). Pearson Education.

Ibeh, F., Sulaimon, M., & Yusuf, R. (2024). Organizational culture and the adoption of SCM practices: Case study of Dangote Refinery. *African Journal of Business and Management Studies*, 35(3), 209-220.

Ifeanyi, O., Abiola, G., & Ajibola, T. (2023). Sustainability through optimized supply chains: A study of Nigerian oil industry practices. *Journal of Sustainable Business Practices*, 9(4), 50-65.

International Energy Agency (IEA). (2023). Global oil price fluctuations and their impact on the Nigerian economy. Report No. 22-03-IEA. Retrieved from https://www.iea.org/reports/global-oil-price-fluctuations

Jespersen, B., & Skjøtt-Larsen, T. (2021). The role of SCM practices in procurement and inventory management: A theoretical and empirical study. *International Journal of Supply Chain Management*, 12(4), 68-81. https://doi.org/10.1108/9781786354500-003

Jiang, B., Zhang, C., & Li, H. (2022). Supplier integration and demand forecasting in supply chain management: Key drivers for improved inventory control. *Journal of Supply Chain and Operations Management*, 20(1), 12-25. https://doi.org/10.1016/j.jscm.2022.06.005

Johnson, P., & Templar, S. (2024). The role of digitalization and data analytics in transforming supply chain management. *International Journal of Digital Supply Chains*, 10(2), 111-123.

Koumanakos, D. (2020). The impact of supply chain management on procurement practices: Efficiency and cost reduction. *Journal of Operations Management*, 35(2), 245-259. https://doi.org/10.1016/j.jom.2020.01.008

Kumar, S., & Haldar, P. (2024). Just-in-time inventory management: Impact on procurement and cash flow in large operations. *Journal of Supply Chain and Logistics*, 42(1), 98-112.

Male,S (2024). Resource Optimazation explained for Beginners. *Project & Resource management*

Monczka, R., Handfield, R., Giunipero, L., & Patterson, J. (2022). *Purchasing and supply chain management* (7th ed.). Cengage Learning.

NESG (Nigerian Economic Summit Group). (2023). Infrastructural challenges in Nigeria's oil sector and their impact on supply chains. Policy Brief. Retrieved from https://www.nesgroup.org/policy-briefs/infrastructure-oil-sector

Nwosu, P., Chukwu, R., & Ejiofor, D. (2024). The evolving role of supply chain management in Nigerian industries. *Journal of Supply Chain and Logistics*, 13(2), 101-116.

Obinna, C., & Ikpe, D. (2023). Risks associated with supply chain dependency in Nigerian industries. *Journal of Risk Management in Supply Chains*, 5(2), 133-145.

Okeke, C., & Nnaji, I. (2024). Infrastructural challenges and supply chain management in Nigeria's oil sector. *Journal of Oil and Gas Management*, 19(1), 42-58.

Oisamoje,M.D & Areloegbe,H.A (2014) Supply Chain management and completion of petroleum projects in Nigeria. *Europen Journal of Logistics, Purchasing and Supply Management.* 2(1), 42-61

Olaniyi, A., Olayemi, S., & Adebayo, K. (2024). Economic sustainability through supply chain management in Nigeria's oil industry: Opportunities and challenges. *Journal of Economic Development*, 30(4), 85-99.

Olaniyi, O., Ogunyemi, O., & Olowoselu, B. (2024). Challenges to SCM implementation in Nigeria's oil sector: A case study of Dangote Refinery. *International Journal of Oil and Gas Management,* 29(4), 143-158.

Olanrewaju, O., Tade, A., & Akinlolu, G. (2023). Collaborative efforts in large supply chains: Mitigating coordination issues in Dangote Refinery. *Journal of Supply Chain Integration*, 6(3), 45-57.

Olawore, O.P., Olufawo, H.S., Adesanya, A.O., Oduwaole, W.K. & Ochonogor, R.N. (2023).

Supply chain disruption risk and market performance in Nigeria: A case of Oil and Gas marketing companies. *American Journal of Supply Chain Management. 7(2).*

Osei-Tutu, R., Adu, S., & Muthoni, F. (2023). Strategic sourcing and supplier relationships in supply chain management. *Journal of Procurement and Supply Management*, 15(3), 112-124.

Sarkis, J., & Zhu, Q. (2023). Green supply chain management: A framework for integrating sustainability in the supply chain. *International Journal of Production Research*, 31(1), 56-72.