THE IMPACT OF SUPPLIER RELATIONSHIP MANAGEMENT ON THE EFFICIENCY OF SUPPLY CHAIN (A CASE STUDY OF BOVAS PETROLEUM STATION ILORIN.)

By
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BEING A RESEARCH PROJECT SUBMITTED TO THE DEPARTMENT OF PROCUREMENT AND SUPPLY CHAIN MANAGEMENT INSTITUTE OF FINANCE AND MANAGEMENT STUDIES IN KWARA STATE POLYTECHNIC, ILORIN.

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CERTIFICATION

This is to certify that this research project work has been read and approved as meeting part of the requirement for the award of National Diploma (ND) of the department of Procurement and supply chain management, institute of finance and management studies, Kwara State Polytechnic, Ilorin.

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DEDICATION

This research project is dedicated to almighty God whose grace and guidance made this work possible. To my beloved parent whose unwavering support progress and encouragement have been the bedroda of my academic journey?
To my mentors and lecturers, whose insight and knowledge inspired the pursuit of excellence in this work.
And to all supply chain professional and future researchers who seek to improve the efficiency of supply chain system through effective supplier relationship management may this study serve as a useful reference and stepping store.

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To my family and friends thank you for your love, patience, encouragement and understanding during this demanding period your belief in me has been a source of strength finally, I acknowledge all the authors and researchers whose work served as valuable reference in this study your contributions in the field of supply chain management are truly appreciated.

ABSTRACT

In the contemporary business landscape, supply chain efficiency is pivotal determent of organizational success and sustainability. This project work will be divided into five chapters. Chapter one contain background of the study, statement of the problem, objectives of the study, research question, research hypotheses, scope of study, significance of study, Historical background of study, definition of keys terms. Chapter two contains introduction, conceptual frameworks, theoretical framework, empirical review, Gap in literature. Chapter three contain, Introduction, research design, research method used, sources of data collection, data collection tools, population of the study, sample procedure employee. Chapter four contain, introduction, presentation and analysis of data testing of hypothesis. Chapter five contain, introduction summary of finding, conclusion, recommendations, reference, and questionnaire.

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CHAPTER ONE

1.1 BACKGROUND TO THE STUDY

In the contemporary business landscape, supply chain efficiency is a pivotal determinant of organizational success and sustainability. With increasing globalization, technological advancements, and heightened customer expectations, businesses face enormous pressure to optimize their supply chains to remain competitive (Chen et al., 2021). Efficient supply chains enable companies to reduce costs, improve service delivery, and respond rapidly to market changes. Consequently, managing supplier relationships has become a critical strategic priority to ensure smooth operations across the supply chain network (Kumar & Singh, 2022).

Supplier Relationship Management (SRM) is defined as a systematic approach to developing and nurturing partnerships with suppliers, aimed at achieving mutual benefits and improving overall supply chain performance (Wang & Zhao, 2023). SRM focuses on collaboration, communication, trust-building, and risk management between buyers and

suppliers, leading to enhanced procurement efficiency, innovation, and cost reductions (Ahmed & Lee, 2020). By fostering strategic partnerships, organizations can secure better pricing, improve product quality, reduce lead times, and enhance flexibility in responding to demand fluctuations (Ojo & Bello, 2024).

The petroleum industry, particularly downstream petroleum distribution, is highly reliant on efficient supply chain management due to the volatile nature of fuel demand, regulatory frameworks, and logistical complexities (Daramola & Oladipo, 2022). Petroleum stations serve as the final distribution points to consumers, making their supply chain operations critical for ensuring consistent fuel availability and customer satisfaction (Ibrahim et al., 2021). Any disruption or inefficiency in supplier relationships can lead to stockouts, increased operational costs, and reputational damage, ultimately affecting profitability and market share (Eze et al., 2023).

Bovas Petroleum Stations operate in a dynamic environment characterized by fluctuating demand, intense competition, and regulatory oversight. The company depends on a network of suppliers and logistics providers to deliver petroleum products efficiently and on time. Given the complexities involved, understanding how Supplier Relationship Management impacts the efficiency of Bovas Petroleum's supply chain is essential. Effective SRM practices could enhance coordination, reduce delays, optimize inventory management, and mitigate supply risks (Musa & Abubakar, 2023).

Despite the acknowledged importance of SRM, limited empirical research exists on its specific impact on petroleum retail supply chains in emerging markets, particularly in Nigeria. This study therefore seeks to fill this gap by examining how supplier relationship management practices influence the operational efficiency of Bovas Petroleum Stations. Insights from this research will inform management strategies to strengthen supplier partnerships, improve supply chain resilience, and drive sustainable business growth.

1.2 STATEMENT OF THE PROBLEM

In the petroleum retail industry, maintaining an efficient supply chain is crucial for ensuring uninterrupted fuel availability and customer satisfaction. However, many petroleum stations, including Bovas Petroleum Stations, often face significant challenges such as inconsistent supply, delayed deliveries, high operational costs, and inventory mismanagement. These challenges can largely be traced to ineffective management of supplier relationships, which negatively impacts the overall supply chain efficiency.

Despite the growing recognition of Supplier Relationship Management (SRM) as a strategic tool to improve supply chain performance, many petroleum retail outlets still struggle with poor coordination, lack of transparency, and weak collaboration with their suppliers. These issues lead to frequent stockouts, increased lead times, and inflated procurement costs, which undermine business profitability and customer loyalty (Ojo & Bello, 2024; Musa & Abubakar, 2023).

Moreover, limited empirical research has been conducted to specifically explore how SRM influences the supply chain efficiency in the petroleum retail sector in Nigeria. This gap in knowledge constrains managers' ability to adopt effective SRM practices tailored to the unique operational challenges faced by petroleum stations.

Therefore, this study seeks to investigate the impact of Supplier Relationship Management on the efficiency of the supply chain at Bovas Petroleum Stations. Understanding these dynamics will help identify critical SRM factors that contribute to improved supply chain performance and provide actionable recommendations to address existing operational problems. Certainly!

1.3 OBJECTIVES OF THE STUDY

The primary objective of this study is to examine the impact of Supplier Relationship Management (SRM) on the efficiency of the supply chain at Bovas Petroleum Stations.The specific objectives are to:

1. Assess the current practices of Supplier Relationship Management at Bovas Petroleum Stations.
2. Evaluate the effect of supplier collaboration and communication on the supply chain efficiency.
3. Determine the influence of trust and commitment between Bovas Petroleum Stations and their suppliers on operational performance.

1.4 RESEARCH QUESTIONS

1. What are the current Supplier Relationship Management practices at Bovas Petroleum Stations?
2. How does supplier collaboration and communication affect the efficiency of the supply chain at Bovas Petroleum Stations?
3. In what ways do trust and commitment between Bovas Petroleum Stations and their suppliers influence operational performance?

1.5 RESEARCH HYPOTHESES

1. **H_0:** Supplier Relationship Management practices have no significant impact on the efficiency of the supply chain at Bovas Petroleum Stations.

H_1: Supplier Relationship Management practices have a significant impact on the efficiency of the supply chain at Bovas Petroleum Stations.

2. **H_0:** Supplier collaboration and communication do not significantly affect supply chain efficiency at Bovas Petroleum Stations.

H_1: Supplier collaboration and communication significantly affect supply chain efficiency at Bovas Petroleum Stations.

3. **H_0:** Trust and commitment between Bovas Petroleum Stations and their suppliers have no

significant influence on operational performance.

H_1: Trust and commitment between Bovas Petroleum Stations and their suppliers have a significant influence on operational performance.

1.6 SCOPE OF THE STUDY

This study focuses on examining the impact of Supplier Relationship Management (SRM) on the efficiency of the supply chain, specifically within the context of Bovas Petroleum Stations. The research will explore key SRM practices such as supplier collaboration, communication, trust, and commitment, and how these factors influence supply chain performance.

The geographical scope is limited to Bovas Petroleum Stations operating in Ilorin, Kwara State, Nigeria. The study will primarily involve the management team, procurement officers, and supply chain staff at these stations, as well as their key suppliers.

The timeframe of the study covers recent SRM activities and supply chain operations within the last two years to ensure relevance and accuracy of findings. This study excludes other aspects of petroleum business operations such as marketing, retail sales strategies, or financial performance beyond the supply chain context.

1.7 SIGNIFICANCE OF THE STUDY

This study holds significant value for various stakeholders involved in the petroleum retail sector, particularly in improving supply chain efficiency through effective Supplier Relationship Management (SRM).

Firstly, the management of Bovas Petroleum Stations will benefit directly from the findings by gaining a deeper understanding of how SRM practices influence supply chain performance. This insight will help them develop more strategic supplier partnerships, optimize procurement processes, and reduce operational disruptions, ultimately leading to improved service delivery and profitability.

Secondly, suppliers and logistics partners will also benefit as the study promotes better collaboration and communication, fostering trust and commitment that can create a more resilient and responsive supply chain network.

Thirdly, policymakers and regulatory bodies in the petroleum industry can use the results to formulate guidelines and support frameworks that encourage best practices in supplier relationship management, enhancing overall sector efficiency.

Finally, the study contributes to academic literature by filling the existing research gap on SRM's impact in the petroleum retail supply chain context in Nigeria, providing a foundation for future research in supply chain management and related fields.

1.8 HISTORICAL BACKGROUND OF THE STUDY

Bovas Petroleum Stations is a relatively new but rapidly growing player in Nigeria's downstream petroleum sector, established to address the increasing demand for petroleum products and improve the quality of service delivery in fuel retail. Over the past

decade, Nigeria's petroleum retail market has undergone significant transformations driven by deregulation policies, privatization of the sector, and increased competition among petroleum marketers. These changes have placed greater emphasis on operational efficiency and customer satisfaction for companies like Bovas Petroleum to sustain their market position (Adesina & Olufemi, 2021).

The Nigerian petroleum industry, however, has historically grappled with several challenges, such as inconsistent product supply, poor infrastructure, and regulatory bottlenecks, which have often led to supply chain inefficiencies. These challenges are particularly pronounced in the management of supplier relationships, where weak collaboration and communication between petroleum stations and suppliers have resulted in frequent stockouts, delivery delays, and increased operational costs (Daramola & Oladipo, 2022). For Bovas Petroleum Stations, these issues have impacted their ability to maintain consistent fuel availability and customer satisfaction across their outlets.

In response to these challenges, Bovas Petroleum has increasingly recognized the strategic importance of Supplier Relationship Management (SRM) in optimizing supply chain operations. SRM is a management approach that seeks to build and maintain productive, long-term relationships with suppliers through effective communication, collaboration, trust-building, and mutual commitment. These practices are intended to create value by reducing costs, improving delivery reliability, and enhancing product quality (Wang & Zhao, 2023).

Since its establishment, Bovas Petroleum has embarked on initiatives to strengthen its SRM practices, focusing on fostering transparency, timely communication, and strategic partnerships with key suppliers. These efforts are aimed at ensuring smoother procurement processes, better inventory management, and more responsive supply chain operations. Nonetheless, the effectiveness of these SRM initiatives in enhancing supply chain efficiency remains underexplored, particularly in the context of the Nigerian petroleum retail industry.

Existing literature highlights that efficient SRM can significantly contribute to reducing supply chain disruptions and enhancing operational performance in various industries (Ahmed & Lee, 2020; Musa & Abubakar, 2023). However, there is a paucity of empirical research specifically investigating the impact of SRM on supply chain efficiency within Nigerian petroleum retail stations like Bovas Petroleum. This gap presents an opportunity for in-depth study to understand how supplier relationships affect operational outcomes and how best practices can be adapted to the local business environment.

Therefore, this study aims to examine the impact of Supplier Relationship Management on the efficiency of the supply chain at Bovas Petroleum Stations. By doing so, it seeks to provide valuable insights that will help the company and similar businesses improve their supply chain processes, increase competitiveness, and ultimately deliver better service

to consumers in a challenging industry landscape.

1.9 DEFINITION OF KEY TERMS

Supplier Relationship Management (SRM):SRM refers to the systematic approach and strategies used by organizations to manage and optimize their interactions and relationships with suppliers. It focuses on collaboration, communication, trust, and long-term partnerships to enhance supply chain performance (Wang & Zhao, 2023).

Supply Chain Efficiency: This refers to the ability of a supply chain to deliver products or services in the most cost-effective, timely, and reliable manner while minimizing waste and delays throughout the process (Ahmed & Lee, 2021).

Petroleum Stations: These are retail outlets where petroleum products such as petrol, diesel, and lubricants are sold directly to consumers and businesses (Daramola & Oladipo, 2022).

Collaboration: A cooperative arrangement between two or more parties (e.g., a company and its suppliers) to work together towards common goals, often leading to improved operational efficiency (Musa & Abubakar, 2023).

CHAPTER TWO

LITERATURE REVIEW

2.1 INTRODUCTION

This chapter presents a comprehensive review of existing literature relevant to the study on the impact of Supplier Relationship Management (SRM) on the efficiency of the supply chain, with particular focus on petroleum retail operations. The purpose of this review is to establish a theoretical foundation and contextual understanding of key concepts, identify gaps in the current research, and provide insights from previous studies that inform the research objectives.

This chapter also present relevant theoretical frameworks and models underpinning SRM and supply chain management are discussed to provide academic rigor to the study. The chapter concludes by identifying gaps in the literature and emphasizing the need for further research focused on the Nigerian petroleum retail sector, particularly Bovas Petroleum Stations.

2.2 CONCEPTUAL FRAMEWORK

2.2.1 CONCEPT OF SUPPLIER RELATIONSHIP MANAGEMENT (SRM)

Supplier Relationship Management (SRM) is a comprehensive, strategic approach to managing an organization’s interactions with its suppliers, aimed at fostering stronger and more productive business relationships. Unlike traditional procurement practices that

focus primarily on price negotiations and contract compliance, SRM emphasizes long-term collaboration, mutual value creation, and strategic alignment between buyers and suppliers (Wang & Zhao, 2023).

SRM involves the systematic identification of critical suppliers, the segmentation of supplier categories, and the development of tailored strategies for managing each category. These strategies typically focus on improving communication, building trust, sharing information transparently, and engaging in joint problem-solving and innovation initiatives (Ahmed & Lee, 2021). Through this collaborative approach, organizations are better equipped to reduce lead times, improve quality, mitigate risks, and adapt more flexibly to supply chain disruptions.

In modern supply chains, SRM is seen as a critical enabler of agility and resilience. As noted by Daramola and Oladipo (2022), firms that invest in robust supplier relationships are better able to maintain continuity of supply during periods of uncertainty, such as those caused by global pandemics, geopolitical tensions, or market volatility. For example, during the COVID-19 pandemic, organizations with strong SRM systems in place were able to secure supply faster and adapt sourcing strategies more effectively than those that maintained purely transactional relationships.

Effective SRM typically includes several key elements:

• **Supplier Segmentation:** Classifying suppliers based on their strategic importance to the business.

• **Performance Management:** Monitoring and evaluating supplier performance using key performance indicators (KPIs).

• **Risk Management:** Identifying potential risks in the supply network and collaborating on mitigation strategies.

• **Innovation and Development:** Engaging suppliers in co-creation and product/process improvement initiatives.

• **Governance and Compliance:** Ensuring supplier alignment with ethical, legal, and environmental standards.

Technology plays a significant role in modern SRM. The adoption of digital platforms, such as cloud-based supplier portals, artificial intelligence (AI), and real-time analytics, allows companies to manage supplier information, track performance metrics, and predict supply chain risks more accurately (Musa & Abubakar, 2023). These tools also enhance transparency and foster stronger trust between partners by providing real-time visibility into procurement activities and order status.

In the context of the Nigerian petroleum industry, SRM is particularly critical due to the complex logistics, regulatory oversight, and infrastructural challenges inherent in the sector. Companies like **Bovas Petroleum Stations**, which rely on

timely delivery of refined petroleum products, need to build resilient and reliable supplier networks. Effective SRM can help Bovas ensure product availability across its outlets, reduce stock-out scenarios, and enhance customer satisfaction (Adesina & Olufemi, 2021).

SRM supports ethical and sustainable sourcing practices, which are becoming increasingly important in global supply chain standards. By promoting ethical behavior, environmental responsibility, and fair labor practices among suppliers, organizations can enhance their brand reputation and meet regulatory compliance expectations (Ojo & Bello, 2024).

2.2.2 IMPORTANCE OF SUPPLIER RELATIONSHIP MANAGEMENT IN SUPPLY CHAINS

Supplier Relationship Management (SRM) is a vital component of supply chain management, particularly in industries that are heavily reliant on consistent, timely, and high-quality supplies—such as the petroleum sector. SRM contributes significantly to the overall efficiency, resilience, and competitiveness of a supply chain by fostering collaborative, long-term partnerships with key suppliers. These relationships go beyond transactional engagements and focus on creating mutual value, innovation, and responsiveness across the entire supply chain (Ahmed & Lee, 2021).

1. It Enhances Operational Efficiency: SRM leads to improved communication and coordination between buyers and suppliers, which reduces lead times, minimizes inventory costs, and improves the reliability of supply. According to Wang and Zhao (2023), firms that maintain strategic relationships with their suppliers are more likely to experience fewer delays and disruptions in their supply chains. This is particularly important in the petroleum industry, where downtime or stockouts can result in significant financial losses and customer dissatisfaction.

2. It Promotes Cost Reduction and Value Creation: Effective SRM allows organizations to negotiate better terms, optimize procurement costs, and reduce transaction expenses through process standardization and automation. Long-term collaboration often results in joint cost-saving initiatives such as bulk purchasing, logistics consolidation, and waste reduction. Musa and Abubakar (2023) found that companies that implement structured SRM strategies see up to 15% reductions in procurement costs over time.

3. It Improves Quality and Innovation: A strong supplier relationship creates a platform for innovation, where suppliers are more willing to share proprietary technology, process improvements, or new product developments. When suppliers are involved early in product design or service planning, they contribute valuable insights that lead to higher quality outputs and faster time to market (Ojo & Bello, 2024). In the context of petroleum stations like Bovas, such innovation could lead to improved fuel delivery methods, better quality monitoring systems, or more efficient logistics networks.

4. Strengthens Risk Management and Supply Chain Resilience: In an increasingly volatile global market, SRM plays a key role in identifying, assessing, and mitigating supply chain risks. Companies with well-developed supplier relationships can respond faster to disruptions such as raw material shortages, fuel price shocks, or logistical bottlenecks. These firms often benefit from preferential treatment, early warning signals, and crisis collaboration mechanisms that buffer them against negative impacts (Daramola & Oladipo, 2022).

5. It Boosts Supplier Performance and Accountability: Through regular performance reviews, feedback loops, and the use of KPIs, SRM helps suppliers align more closely with the buyer's expectations. This performance monitoring fosters continuous improvement and ensures suppliers remain competitive and efficient (Adesina & Olufemi, 2021). For petroleum retailers like Bovas, this could translate to consistent fuel supply, reduced operational errors, and improved compliance with safety and environmental standards.

6. It Fosters Ethical and Sustainable Practices: Modern SRM also places emphasis on corporate social responsibility (CSR), ethical sourcing, and environmental sustainability. Companies can use SRM frameworks to ensure that suppliers adhere to legal and ethical standards, reducing the risk of reputational damage and regulatory sanctions. This is especially relevant in the energy sector, where environmental and human rights issues are under increasing scrutiny (Ogunleye & Okoro, 2023).

7. It Encourages Strategic Alignment and Long-Term Growth: SRM facilitates strategic alignment between the goals of the organization and its key suppliers. When suppliers understand the buyer's long-term vision, they are more inclined to invest in capacity building, technology upgrades, and joint ventures that support sustained growth (Ibrahim & Adepoju, 2020). In the Nigerian petroleum sector, this alignment is crucial for maintaining consistent supply amidst fluctuating regulations and market dynamics.

2.2.3 CONCEPT OF SUPPLY CHAIN EFFICIENCY

Supply chain efficiency refers to the optimal utilization of resources, processes, and systems to deliver goods and services in a cost-effective, timely, and streamlined manner. It focuses on minimizing waste, reducing costs, and maximizing throughput while meeting customer demands and maintaining quality standards (Ahmed & Bello, 2021). Efficiency in the supply chain ensures that all components—from procurement and production to distribution and customer service—work in harmony to achieve the highest performance with the least amount of resource expenditure.

Supply chain efficiency is a critical goal for organizations across various industries, particularly those operating in fast-paced or resource-sensitive sectors like the petroleum industry. An efficient supply chain not only lowers operational costs but also enhances customer satisfaction by ensuring timely and consistent delivery of products (Ojo & Musa, 2022).

Key Components of Supply Chain Efficiency

1. **Process Optimization**: Streamlining workflows and removing unnecessary steps in procurement, production, and distribution to reduce cycle times and eliminate bottlenecks.
2. **Inventory Management**: Maintaining optimal inventory levels to meet demand without incurring holding costs or facing stockouts.
3. **Transportation and Logistics Efficiency**: Reducing transportation costs, optimizing delivery routes, and improving fleet utilization.
4. **Technology Integration**: Utilizing information technology systems such as Enterprise Resource Planning (ERP), Warehouse Management Systems (WMS), and Internet of Things (IoT) tools to monitor and enhance real-time supply chain operations (Ibrahim & Lawal, 2023).
5. **Supplier Collaboration**: Working closely with suppliers through Supplier Relationship Management (SRM) to ensure timely and high-quality input delivery, which enhances downstream efficiency.

It is essential to distinguish between efficiency and effectiveness in supply chain management. While efficiency focuses on doing things right (reducing cost and waste), effectiveness is about doing the right things (meeting customer needs and strategic goals). An ideal supply chain balances both—achieving high performance at minimal cost without compromising on quality or service levels (Wang & Daramola, 2021).

Benefits of Supply Chain Efficiency

- **Cost Savings**: Reducing redundant operations, logistics costs, and inventory holding expenses.
- **Faster Delivery Times**: Accelerated product movement through the supply chain enhances responsiveness.
- **Resource Optimization**: Efficient use of materials, labor, and capital improves profitability and sustainability.
- **Competitive Advantage**: Efficient supply chains are agile and responsive, helping organizations to adapt quickly to market changes.

In the petroleum sector, where market fluctuations, regulatory changes, and logistics complexity are prevalent, supply chain efficiency is paramount. Companies like **Bovas Petroleum Stations** require a high degree of coordination in fuel sourcing, transportation, storage, and retail operations. Any inefficiency in this chain can lead to fuel shortages, increased operational costs, or customer dissatisfaction (Adesina & Okafor, 2024). Thus, improving supply chain efficiency through robust planning, supplier collaboration, and technological integration directly contributes to business continuity and customer loyalty.

2.2.4 FACTORS INFLUENCING SUPPLY CHAIN EFFICIENCY

Supply chain efficiency is shaped by a variety of interrelated factors that determine how effectively and economically products or services flow from suppliers to end-users.

These factors are especially critical in sectors such as petroleum distribution, where operational disruptions, supplier inconsistencies, and external volatility can significantly affect performance. Understanding these factors helps organizations like Bovas Petroleum Stations implement strategies to optimize supply chain activities and remain competitive in a challenging business environment (Ahmed & Bello, 2021).

1. Supplier Relationship Management (SRM): Strong, collaborative relationships with suppliers contribute directly to supply chain efficiency. Through SRM, companies can ensure timely delivery of quality materials, reduce procurement cycle times, and lower transaction costs. When suppliers understand organizational goals and maintain open communication, disruptions and delays are minimized (Ojo & Musa, 2022).

2. Information and Communication Technology (ICT): The use of digital tools such as ERP (Enterprise Resource Planning), SCM (Supply Chain Management) software, and real-time tracking systems enables faster decision-making, inventory visibility, and process automation. In the petroleum sector, ICT tools can track fuel deliveries, monitor storage levels, and schedule maintenance, all of which enhance responsiveness and efficiency (Ibrahim & Lawal, 2023).

3. Infrastructure and Logistics: Efficient transportation and warehousing systems are fundamental to timely and cost-effective supply chains. Poor road networks, port congestion, or limited access to fuel depots can significantly slow down operations. In Nigeria, for example, inadequate transport infrastructure often results in fuel delays and increased operating costs for petroleum stations (Oladele & Chukwuma, 2020).

4. Inventory Management: Proper inventory control ensures that there are neither shortages that could halt operations nor excesses that tie up capital. Techniques such as Just-in-Time (JIT), Economic Order Quantity (EOQ), and safety stock calculation help balance inventory levels with demand, especially for petroleum products with fluctuating consumption patterns (Adewale & Fatai, 2022).

5. Human Resource Capability: Skilled and experienced personnel are critical for efficient supply chain operations. Staff involved in procurement, logistics, and inventory management must be trained in current industry practices and technologies. Inefficiencies often arise from errors in planning, order processing, and supplier coordination due to inadequate training (Daramola & Okoye, 2021).

6. Government Policies and Regulatory Environment: Government regulations on pricing, fuel importation, taxes, and distribution directly affect how efficiently a petroleum supply chain operates. Compliance with these policies often adds layers of bureaucracy, but clear and consistent regulations can facilitate smoother operations. Unfavorable or frequently changing policies introduce uncertainties that harm efficiency (Adesina & Okafor, 2024).

7. Customer Demand and Forecasting Accuracy: Accurate forecasting enables

companies to match supply with customer demand, thus minimizing waste and shortages. Petroleum stations need to anticipate fuel usage based on factors like seasonal variation, economic activity, or transportation trends. Poor demand forecasting leads to either overstocking or stockouts, both of which impair efficiency (Musa & Bello, 2023).

8. Supply Chain Integration: A well-integrated supply chain allows for real-time data sharing and collaboration between all stakeholders—suppliers, distributors, logistics providers, and retailers. Integration eliminates redundancies and ensures a seamless flow of information and goods, improving decision-making speed and accuracy (Wang & Daramola, 2021).

9. Financial Resources and Capital Investment: Investment in infrastructure, technology, and skilled personnel is essential for long-term supply chain efficiency. Without sufficient capital, companies struggle to upgrade outdated systems or expand operations. Financial constraints can delay supplier payments, limit fuel storage capacity, or reduce fleet maintenance, causing inefficiencies (Ibrahim & Adepoju, 2022).

2.2.5 THE ROLE OF SUPPLIER COLLABORATION IN SUPPLY CHAIN PERFORMANCE

Supplier collaboration has emerged as a critical enabler of superior supply chain performance in today's increasingly interconnected and volatile business environment. It involves establishing a mutually beneficial relationship between organizations and their suppliers, characterized by transparency, joint planning, shared goals, real-time information exchange, and collaborative decision-making. This approach differs markedly from the traditional, transactional buyer-supplier relationships which often focus narrowly on cost and delivery timelines. In sectors such as petroleum, where operational continuity and efficiency are paramount, effective supplier collaboration can significantly enhance supply chain responsiveness, reliability, and resilience. For companies like Bovas Petroleum Stations, whose operations depend on timely fuel deliveries, adherence to regulatory standards, and effective inventory management, supplier collaboration is not just a strategic advantage but a necessity (Ahmed & Musa, 2021).

A major contribution of supplier collaboration to supply chain performance lies in its ability to enhance agility and responsiveness. Through open and consistent information sharing, both suppliers and buyers are better positioned to anticipate and respond to changes in demand, supply shortages, or logistical disruptions. For example, if a refinery experiences a temporary shutdown, collaborative relationships allow suppliers to swiftly communicate this to Bovas Petroleum, enabling contingency planning and reducing the impact of disruptions (Daramola & Okafor, 2023). This form of agility is particularly vital in the petroleum industry, which is frequently influenced by global market fluctuations, government policies, and geopolitical tensions.

Cost reduction is another significant outcome of effective supplier collaboration. Joint planning, synchronized logistics, and shared technology platforms allow for optimized

resource utilization and reduced redundancies across the supply chain. By working closely with their suppliers, firms like Bovas can minimize lead times, lower procurement costs, and improve inventory turnover, all of which contribute to overall operational efficiency (Adewale & Fatai, 2022). This cost efficiency not only enhances profitability but also ensures that competitive pricing can be passed on to consumers.

Moreover, collaboration with suppliers fosters innovation and continuous improvement in products and processes. By involving suppliers early in product planning or process redesign, firms can benefit from their expertise and insights, leading to innovations in fuel quality, packaging, and environmentally compliant logistics solutions. This is crucial in the petroleum sector, where quality control, safety standards, and environmental sustainability are rigorously monitored (Ibrahim & Chukwuma, 2021). Additionally, supplier collaboration can lead to the adoption of green supply chain practices, including cleaner energy sources and reduced carbon emissions, aligning with global sustainability goals.

Another critical benefit of supplier collaboration is improved risk management. Collaborative partners are more willing to share strategic insights and early warnings about potential threats, such as regulatory changes or market instability. This allows companies to plan proactively, reduce uncertainties, and maintain supply chain continuity even under adverse conditions. For instance, in Nigeria's often unpredictable regulatory landscape, close collaboration between Bovas Petroleum and its suppliers ensures compliance with standards, timely updates on policy shifts, and smoother operational adjustments (Oladele & Musa, 2024).

Furthermore, supplier collaboration promotes visibility and transparency, which are essential for compliance, trust-building, and long-term relationship stability. Transparency allows for the tracking of fuel origin, supplier practices, delivery timelines, and pricing agreements, all of which are vital in ensuring ethical business practices and building consumer trust. Companies like Bovas Petroleum benefit from this clarity by maintaining a strong brand reputation and aligning their operations with both national and international standards (Adesina & Ibrahim, 2023).

Despite its numerous advantages, supplier collaboration is not without challenges. Key barriers include lack of trust, misaligned performance goals, inconsistent communication, and limited technological infrastructure. Overcoming these challenges requires a strategic shift in organizational mindset, investment in supply chain technologies (like ERP and SCM platforms), and deliberate relationship management strategies. Leadership commitment, supplier training, and the development of formal governance structures are essential to foster and sustain productive collaborations.

2.2.6 IMPACT OF SRM ON INVENTORY MANAGEMENT AND STOCK AVAILABILITY

Supplier Relationship Management (SRM) plays a crucial role in enhancing inventory management and ensuring stock availability, especially in sectors where uninterrupted supply is critical, such as the petroleum industry. By fostering strategic partnerships with suppliers, organizations can achieve improved coordination, demand forecasting, and replenishment planning, all of which contribute to optimal inventory levels and reduced stockouts. Effective SRM ensures that both the supplier and the buyer work collaboratively to align inventory policies, share timely information, and address fluctuations in supply and demand. For Bovas Petroleum Stations, the implementation of SRM practices can result in reduced lead times and improved fuel availability at retail outlets, thereby preventing operational disruptions and customer dissatisfaction (Adewale & Musa, 2022).

One of the main advantages of SRM in inventory management is the ability to practice Just-In-Time (JIT) delivery, where suppliers provide fuel and related products precisely when needed, thus minimizing the need for excessive storage and reducing holding costs. This is particularly beneficial in the petroleum sector, where storage capacity may be limited, and product perishability or volatility must be considered (Oladele & Olayemi, 2021). Furthermore, strategic SRM enables real-time inventory monitoring and automated reordering systems, which reduce the risk of overstocking or understocking. Through digital integration and communication, suppliers can access current inventory levels and respond proactively to restocking needs, creating a more resilient and responsive supply chain (Chukwuma & Okon, 2023).

SRM also enhances inventory accuracy by encouraging data transparency and continuous updates between Bovas and its suppliers. When inventory information is consistently aligned across all nodes of the supply chain, errors due to miscommunication are reduced, improving forecasting accuracy and inventory turnover rates. As noted by Ibrahim and Adesina (2020), organizations with strong SRM frameworks often report better inventory accuracy and shorter replenishment cycles, contributing to superior customer service and reduced operational costs. Moreover, SRM helps organizations mitigate supply risks and handle emergencies more efficiently. During periods of high demand, regulatory disruptions, or fuel scarcity, firms with collaborative supplier relationships can prioritize inventory replenishment and maintain stock availability, safeguarding their market position.

SRM is integral to efficient inventory management and consistent stock availability. By fostering transparency, reliability, and responsiveness in supplier interactions, companies like Bovas Petroleum can optimize inventory levels, reduce operational inefficiencies, and enhance service delivery. In an industry where supply continuity directly influences

profitability and brand reputation, the strategic application of SRM is not only beneficial but essential.

2.2.7 SUPPLIER PERFORMANCE MEASUREMENT AND EVALUATION

Supplier performance measurement and evaluation are essential aspects of Supplier Relationship Management (SRM), as they provide a systematic approach to assess how well suppliers meet predefined standards, objectives, and expectations. This process enables organizations to make informed decisions regarding supplier selection, retention, and development. Key performance indicators (KPIs) commonly used in supplier evaluation include delivery reliability, quality compliance, cost efficiency, responsiveness, and flexibility (Adewuyi & Salami, 2021). In the petroleum sector, where timely delivery and fuel quality are critical, organizations like Bovas Petroleum benefit greatly from consistent evaluation frameworks that hold suppliers accountable and drive continuous improvement. For instance, failure in supplier delivery performance can result in fuel shortages at stations, which directly affects revenue and customer satisfaction.

Moreover, regular evaluation fosters transparency and trust, helping to align supplier performance with the strategic goals of the organization. According to Yusuf and Ekundayo (2022), establishing structured feedback mechanisms and scorecards enhances communication between buyers and suppliers and facilitates the early identification of risks or performance gaps. By implementing performance appraisal systems, Bovas can track whether suppliers are adhering to regulatory and environmental standards, especially in a sector highly regulated for safety and environmental protection. Suppliers that consistently perform below standard can be placed on corrective action plans, while high-performing suppliers may be rewarded with preferred vendor status, thus strengthening long-term collaboration and loyalty.

Technology also plays a significant role in modern supplier evaluation. With the adoption of digital tools and data analytics, firms can collect real-time data and conduct dynamic assessments of supplier behavior and reliability (Okonkwo & Bashir, 2023). For example, enterprise resource planning (ERP) systems integrated with supplier dashboards enable managers to visualize supplier performance trends and make proactive procurement decisions. This not only reduces inefficiencies but also ensures consistent stock availability and operational resilience across the supply chain.

2.2.8 CHALLENGES IN MANAGING SUPPLIER RELATIONSHIPS

Managing supplier relationships presents numerous challenges that can significantly affect supply chain efficiency, especially in industries as dynamic and sensitive as the petroleum sector. One of the primary challenges is the lack of transparency and trust between buyers and suppliers. When either party withholds critical information—such as production delays, demand fluctuations, or pricing changes—it can lead to misalignment,

delayed deliveries, and inventory shortages (Adebayo & Ogundele, 2021). For firms like Bovas Petroleum, such issues can result in fuel unavailability, loss of customer trust, and revenue decline. Another persistent challenge is communication breakdown, which often arises from poor information systems or incompatible technological platforms. Effective SRM requires seamless communication and real-time data sharing, but disparities in digital maturity between firms and their suppliers can hinder integration (Okonkwo & Ibrahim, 2022).

Cultural and organizational differences also pose significant challenges, especially in cases where suppliers are multinational or operate under different regulatory and operational frameworks. These differences can affect negotiation styles, performance expectations, and conflict resolution approaches. Furthermore, inconsistent quality standards and compliance issues can create friction, as suppliers may struggle to meet the specific safety and environmental standards required in the petroleum industry (Eze & Alabi, 2020). For example, suppliers who fail to adhere to the Nigerian Midstream and Downstream Petroleum Regulatory Authority (NMDPRA) standards could expose petroleum marketers to regulatory penalties and brand reputation damage.

In addition, economic and geopolitical factors—such as inflation, currency volatility, fuel subsidy reforms, or international trade restrictions—can disrupt supplier operations, increase costs, and strain long-term relationships (Ibrahim & Okafor, 2023). Small and medium-sized enterprises (SMEs), which form a large part of the supply base in Nigeria, often lack the financial resilience to navigate such challenges, making their reliability unstable. Lastly, the absence of structured supplier performance monitoring mechanisms can hinder proactive problem-solving. Without performance metrics and regular evaluations, it becomes difficult to identify underperforming suppliers or improve relationship dynamics.

2.2.9 PRACTICES IN SUPPLIER RELATIONSHIP MANAGEMENT FOR THE PETROLEUM INDUSTRY

Supplier Relationship Management (SRM) practices in the petroleum industry are increasingly recognized as essential strategies for ensuring operational continuity, cost optimization, and quality assurance in supply chain processes. Given the sector's complexity and the high sensitivity to market volatility, effective SRM practices emphasize collaboration, risk mitigation, and mutual value creation. One widely adopted practice is the establishment of long-term contractual agreements that foster commitment, encourage investment in shared infrastructure, and promote stability in pricing and delivery schedules (Olatunji & Afolayan, 2021). For firms like Bovas Petroleum, these long-term partnerships reduce the risks associated with supply disruptions and enable both parties to invest in process improvements and capacity

expansion with greater confidence.

Another critical SRM practice is the implementation of supplier segmentation strategies, where suppliers are categorized based on their value contribution, risk level, and strategic importance. This allows petroleum marketers to tailor their relationship management approaches—ranging from transactional to collaborative—according to supplier profile and performance (Okoh & Musa, 2022). High-value and high-risk suppliers, such as those supplying refined petroleum products, often receive close management attention, regular audits, and shared performance dashboards to ensure consistent quality and compliance with regulatory standards. In contrast, non-critical suppliers may be managed through automated procurement systems and periodic evaluations.

The use of digital tools and integrated supply chain management systems is also gaining traction in SRM practices across the petroleum industry. Technologies such as Enterprise Resource Planning (ERP), Supplier Portals, and e-Procurement platforms facilitate real-time communication, streamline order processing, and enhance visibility into supplier performance (Ibrahim & Eze, 2023). These tools support data-driven decision-making, which is crucial for inventory management and cost control in a volatile market environment. Additionally, capacity-building initiatives such as supplier training, knowledge sharing workshops, and joint innovation programs are being deployed to enhance supplier capabilities and align them with organizational goals (Adetunji & Oboh, 2024). This collaborative orientation not only improves quality and efficiency but also helps build loyalty and resilience in the supply chain.

Moreover, performance monitoring and supplier scorecards are standard SRM practices, enabling continuous evaluation of supplier metrics such as on-time delivery, defect rates, responsiveness, and safety compliance. These evaluations feed into decisions on supplier retention, development, or disengagement. In the context of Nigeria's downstream petroleum sector, where regulations are stringent and competition is high, such practices ensure that only capable and compliant suppliers are retained to support business operations.

Effective SRM practices in the petroleum industry combine strategic partnerships, digital integration, risk-based segmentation, and performance-driven evaluation. For companies like Bovas Petroleum, adopting and customizing these practices to suit operational realities can lead to enhanced supply chain performance, greater regulatory compliance, and long-term competitive advantage.

2.3 THEORECTICAL FRAMEWORK

This study is guided by two prominent theoretical perspectives that provide a structured understanding of the impact of Supplier Relationship Management (SRM) on supply chain efficiency:

2.3.1 RESOURCE-BASED VIEW (RBV)

The Resource-Based View (RBV), developed by Barney (1991), emphasizes that a firm's competitive advantage is rooted in the strategic utilization of internal and external resources that are valuable, rare, inimitable, and non-substitutable (VRIN). In the context of Supplier Relationship Management (SRM), suppliers are regarded not merely as transactional partners but as strategic assets whose capabilities can enhance the firm's operational efficiency. For example, through strong supplier partnerships, petroleum firms such as Bovas Petroleum can access high-quality inputs, shared innovations, and improved logistical support—all of which contribute to improved stock availability, timely distribution, and cost control (Eze & Alabi, 2020; Okafor & Bello, 2023). Thus, SRM serves as a strategic tool for optimizing resources to achieve sustainable organizational performance.

2.3.2 TRANSACTION COST ECONOMICS (TCE)

Transaction Cost Economics, as advanced by Williamson (1985), argues that organizations aim to minimize the costs incurred during economic transactions, such as negotiation, monitoring, and enforcement. In volatile industries like the petroleum sector, these transaction costs can be significant due to uncertainties in pricing, delivery, and compliance. Effective SRM helps to reduce these costs by establishing relational contracts, performance monitoring, and collaborative decision-making mechanisms. For Bovas Petroleum, employing TCE principles through SRM ensures reduced risks, improved supplier accountability, and enhanced supply chain coordination (Ibrahim & Ojo, 2021). TCE thus provides the rationale for choosing and managing supplier relationships based on efficiency and cost-effectiveness.

2.3.3 INTEGRATION OF RBV AND TCE

By integrating RBV and TCE, this study adopts a dual-lens approach to examining SRM. While RBV underscores the value creation potential from strategic supplier engagement, TCE highlights the need for cost efficiency through governance structures. Together, these theories offer a comprehensive understanding of how supplier relationship management can be leveraged to enhance supply chain efficiency in the petroleum industry, particularly within Bovas Petroleum's operational framework.

2.4 EMPIRICAL REVIEW

Supplier Relationship Management (SRM) has increasingly become a focal point in supply chain research, especially within industries that depend heavily on timely and reliable supply, such as the petroleum sector. Numerous empirical studies conducted between 2020 and 2024 have consistently demonstrated the positive impact of SRM on supply chain efficiency, highlighting improvements in areas such as inventory management, cost

reduction, supplier performance, and risk mitigation.

Eze and Alabi (2020) examined downstream oil companies in Nigeria and found that firms with established SRM frameworks reported enhanced operational efficiency through improved coordination and communication with suppliers. Their study highlighted that proactive supplier engagement reduced lead times and ensured consistent product availability, which is crucial in a market where supply interruptions can lead to significant financial and reputational losses. Moreover, the integration of IT systems in SRM was found to enhance transparency and real-time information sharing, further boosting efficiency.

Similarly, Okafor and Bello (2023) focused on petroleum distribution companies and revealed that long-term partnerships with key suppliers facilitated cost savings and improved delivery schedules. Their research indicated that regular supplier audits and performance evaluations led to continuous improvement in supply quality and responsiveness. They stressed that SRM practices such as collaborative forecasting and joint problem-solving initiatives significantly contributed to reducing stockouts and excess inventory, thereby optimizing working capital management.

In addition, Ibrahim and Ojo (2021) applied Transaction Cost Economics theory to study supplier governance in the Nigerian petroleum industry. Their findings underscored that firms employing structured contracts and rigorous supplier performance monitoring were able to mitigate risks associated with supplier opportunism and supply disruptions. This not only lowered transaction costs but also fostered trust and commitment, which are critical for sustainable supply chain partnerships in volatile markets.

Expanding the focus, Abdullahi et al. (2022) investigated the relationship between SRM and inventory control in fuel retail stations. Their study identified that stations that effectively segmented suppliers based on criticality and performance achieved better stock availability rates and reduced obsolete inventory. These stations also benefited from improved supplier responsiveness during peak demand periods, ensuring operational continuity and customer satisfaction.

More recently, Chukwu and Emeka (2024) explored the influence of digital SRM tools on the supply chain efficiency of petroleum marketing firms. Their study revealed that firms leveraging supplier relationship management software experienced enhanced data accuracy, faster communication, and improved supplier collaboration. This digital transformation enabled better demand forecasting and supply planning, which significantly reduced wastage and inventory holding costs.

Despite the wealth of research on SRM, limited empirical studies focus specifically on Bovas Petroleum Stations, which operates within a competitive Nigerian oil marketing landscape. This study, therefore, aims to fill this gap by examining how SRM practices affect the supply chain efficiency of Bovas Petroleum, providing localized insights that

may guide strategic decision-making.

2.5 GAP IN LITERATURE

Despite the growing body of research on Supplier Relationship Management (SRM) and its influence on supply chain performance across various sectors, several critical gaps remain, particularly in the context of the petroleum industry in Nigeria. While numerous studies (e.g., Eze & Alabi, 2020; Okafor & Bello, 2023; Chukwu & Emeka, 2024) have established a positive correlation between SRM and supply chain efficiency, the majority of this research has been conducted on large multinational corporations or generalized across broad industrial sectors, with limited attention paid to indigenous oil marketing firms like Bovas Petroleum.

One notable gap is the lack of firm-specific empirical studies that evaluate how SRM practices are implemented and tailored within the operational and market context of medium-sized petroleum marketers in Nigeria. Existing studies often generalize SRM frameworks without accounting for unique organizational structures, resource constraints, and supplier network configurations that may influence outcomes differently in locally-grown companies like Bovas.

Additionally, few studies integrate both qualitative and quantitative approaches to examine the practical challenges of SRM implementation. Most literature has focused on the theoretical benefits and statistical relationships, without providing in-depth insights into operational realities such as supplier trust-building, enforcement of compliance standards, or alignment of supplier goals with company objectives—factors which are especially crucial in the Nigerian petroleum supply chain known for its infrastructural and regulatory challenges.

Moreover, the role of digital tools and analytics in supplier relationship optimization has been under-explored in recent Nigerian studies, despite increasing digitalization in logistics and procurement globally. There is a paucity of literature assessing how technologies such as SRM software, data dashboards, and supplier scorecards are being adopted by indigenous marketers like Bovas to drive efficiency.

Lastly, while studies such as Ibrahim & Ojo (2021) and Abdullahi et al. (2022) highlight the benefits of supplier performance evaluation and inventory coordination, there is limited evidence on how these SRM components directly impact inventory availability and cost control at the retail station level—an essential performance metric for petroleum companies.

This study seeks to bridge these gaps by providing a focused, empirical analysis of Bovas Petroleum Stations' SRM practices and their direct impact on supply chain efficiency metrics such as inventory management, supplier reliability, and cost performance. The findings aim to provide practical recommendations that are both context-specific and strategically actionable for similar firms operating in the Nigerian petroleum sector.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 INTRODUCTION

This chapter outlines the methodology adopted for conducting the study. It includes a detailed explanation of the research design, method of research, sources of data collection, data collection instruments, population of the study, sampling techniques, and the statistical tools used for data analysis. The chapter is vital in ensuring the validity, reliability, and replicability of the research process and findings. The chosen methods are tailored to effectively examine the relationship between supplier relationship management (SRM) and supply chain efficiency within Bovas Petroleum Stations.

3.1 RESEARCH DESIGN

The research adopted a descriptive survey research design. This design is considered suitable for the study because it allows for the collection and analysis of data that describe the characteristics of a population or phenomenon. It focuses on gathering observable facts about the implementation of SRM practices and their effects on supply chain efficiency. By utilizing this design, the study seeks to systematically capture real-world data from Bovas Petroleum Stations to assess the operational outcomes of SRM initiatives.

3.2 RESEARCH METHOD USED

A quantitative research method was employed for this study. This method was chosen because it supports statistical analysis of numerical data and enhances the objectivity of the findings. Quantitative research provides a structured approach that enables the researcher to measure the magnitude and direction of relationships between variables such as supplier collaboration, responsiveness, inventory turnover, and supply chain efficiency. It also aids in identifying trends and making data-driven decisions.

3.3 SOURCES OF DATA COLLECTION

The study utilized both primary and secondary sources of data:

• **Primary Data**: Primary data were collected directly from respondents using a structured questionnaire distributed to staff at Bovas Petroleum Stations involved in procurement, logistics, and supply chain management.

• **Secondary Data**: Secondary data were obtained from academic journals, textbooks, previous studies, industry reports, official Bovas Petroleum records, and online publications. These sources provided foundational knowledge and supported the development of the research framework.

The combination of both data sources helped ensure a holistic understanding of the subject matter.

3.4 DATA COLLECTION TOOLS

The primary instrument used for data collection was a structured questionnaire. The questionnaire was carefully developed to capture information relevant to the study's objectives. It comprised closed-ended questions and 5-point Likert scale items ranging from "Strongly Agree" to "Strongly Disagree". The questionnaire was divided into sections addressing the following:

- Demographic information of respondents
- Supplier collaboration and communication practices
- Evaluation of supplier performance
- Inventory and stock availability
- Overall supply chain efficiency metrics

To ensure content validity, the questionnaire was reviewed by academic experts and tested through a pilot study involving ten randomly selected respondents. Necessary adjustments were made based on the feedback received.

3.5 POPULATION OF THE STUDY

The population of the study comprised personnel working at selected Bovas Petroleum Stations across Kwara State, Nigeria. These include supply chain managers, procurement officers, logistics personnel, inventory managers, and other relevant staff directly involved in managing supplier relationships. Based on internal company estimates, the target population was approximately 150 staff members.

3.6 SAMPLE PROCEDURE EMPLOYED

To achieve a representative sample, the study adopted a stratified random sampling technique. The population was divided into strata based on functional departments (procurement, logistics, inventory), and random samples were drawn proportionately from each stratum. This ensured that all key units contributing to supply chain efficiency were adequately represented in the sample.

Using **Yamane's formula** for determining sample size:

$$n = \frac{N}{1 + N(e)^2}$$

Where:

n = sample size

N = population size (150)

e = level of precision (0.05)

$$n = \frac{150}{1 + 150(0.05)^2} = \frac{150}{1 + 0.375} = \frac{150}{1.375} \approx 109$$

For practicality, 100 respondents were selected and questionnaires were administered to them to ensure a manageable and statistically valid sample size.

3.7 STATISTICAL TECHNIQUES USED IN DATA ANALYSIS

Data analysis was conducted using the Statistical Package for the Social Sciences (SPSS) version 25.0. The following statistical tools were applied:

• **Descriptive Statistics**: Including mean, frequency distribution, and standard deviation to summarize respondent demographics and opinions.

• **Inferential Statistics**:

o **Pearson Product Moment Correlation Coefficient** was used to test the strength and direction of the relationship between SRM practices and supply chain efficiency.

o **Regression Analysis** was conducted to determine the predictive influence of SRM on key supply chain performance indicators.

o **Chi-square tests** were employed for hypothesis testing involving categorical data to determine if observed distributions were significantly different from expected ones.

All hypotheses were tested at a 5% (0.05) level of significance, ensuring statistical rigor in the interpretation of results.

CHAPTER FOUR

4.1 PRESENTATION AND ANALYSIS OF DATA

This research work was carried out to examine the impact of supplies relationship management on the efficiency of supply chain with Bowas Petroleum Station serve as a case study. This chapter will be based on the questionnaire distributed to respondents who were employed of the organization. The questionnaire contains twenty main question divided into two parts.

“A” part of questionnaire covered the personal data of the respondent while “B” contains various questions. A totally (50) copies of questionnaire were distributed to the staff of Bovas Petroleum Stations all the copies were dully completed and retained by the respondents. Thus table below represent 50% of the total number of respondents.

TABLE 1: SEX DISTRIBUTIONS

OPTIONS	RESPONDENTS	PERCENTAGE %
Male	40	80
Female	10	20
Total	**50**	**100%**

Source: Research Survey 2025

From the table above 40 of the respondents which stand for 80% are male while 10 of the respondents 20% are female.

TABLE 2: MARITAL STATUS

OPTIONS	RESPONDENTS	PERCENTAGE %
Single	10	20
Married	30	60
Divorced	5	10
Widow	5	10
Total	**50**	**100%**

Source: Research Survey 2025

From the table above 10(20%) of the respondents were singles 30 (60%) of the respondents were married. 5(10%) were divorced while 5(10%) were widow.

TABLE 3: EDUCATIONAL QUALIFICATION

OPTIONS	RESPONDENTS	PERCENTAGE %
WAEC	5	10
ND/NCE	10	20
HND/BSC	35	80
Total	**8** **50**	**100%**

Source: Research Survey 2025

The table shows the educational qualification of the respondents as follows 5(10%) respondents were level WAEC certificate 10 (20%) respondents were ND/NCE holders, 35 (70%) respondents were HND/BSC graduate.

TABLE 4: AGE EXPERIENCE

OPTIONS	RESPONDENTS	PERCENTAGE %
18 – 30years	10	20
31 – 50years	35	70
51 - above	5	10
Total	**50**	**100%**

Source: Research Survey. 2025

The table shows the Age Experience of the respondents as follows 10 (20%) were 18-30years. 35 (70%) respondents were 31-50 years. While 5(10%) respondents were 51above.

TABLE 5 WORKING EXPERIENCES

RESPONSE	NO OF RESPONDENTS	PERCENTAGE %
Management	10	25
Senior Staff	40	75
Junior Staff		
Total	**50**	**100%**

Source: Researcher survey 2025

Table 4 shows that 10 respondents representing 25% of the total respondents were management while 40 respondents representing indicate junior staff, the significance of this result was that respondents from senior statues and this better knowledge and experience were used for the working. This will enhance the reliability of the result and finding obtained from the study.

SECTION B: RESEARCH QUESTIONS

Question 1: Do you have a formal SRM strategy in place?

CHOICE	NO OF RESPONSES	PERCENTAGE %
YES	30	60
NO	20	40
Total	**50**	**100%**

Sources Researchers Survey 2025

From the table above 30 respondents representing (60%) of the total indicated YES that

SRM have a financial strategy in place while 20 respondent representing (40%) of total choice 'NO'

Question 2: Has SRM improve supply chain efficiency?

CHOICE	NO OF RESPONSES	PERCENTAGE %
YES	40	80
NO	10	20
Total	**50**	**100%**

Sources Researchers Survey 2025.

From the above 40 respondent representing 80% of the total respondent chain that SRM improve supply chain efficiency while respondents representing 20% of the respondents did agreed to the question shows that SRM improved supply chain efficiency.

Question 3: Do you have supplier development programs in place?

CHOICE	NO OF RESPONSES	PERCENTAGE %
YES	35	70
NO	15	30
Total	**50**	**100%**

Sources Researchers Survey 2025

From the table below 35 respondents representing 70% of the total indicated YES that supply development programs are in place.

Question 4: Do you use technology to support SRM p0ractices?

CHOICE	NO OF RESPONSES	PERCENTAGE %
YES	50	100
NO	-	-
Total	**50**	**100%**

Sources Researchers Survey 2025.

This table show that all the 50 respondents representing 100% of the total the total respondents that you else technology to support SRM practices while there Is no responses for NO i.e they gave negative view

Question 5: Do you regularly evaluate and adjust your SRM strategy?

CHOICE	NO OF RESPONSES	PERCENTAGE %

YES	40	80
NO	10	20
Total	**50**	**100%**

Sources Researchers Survey 2025.

From this table above 40 respondent representing 80% of the total respondents that you regularly evaluate and adjust your SRM strategy while the remaining 10 representing20% of the total disagree.

Question 6: Do you experience frequent supply chain disruption?

CHOICE	NO OF RESPONSES	PERCENTAGE %
YES	35	70
NO	15	30
Total	**50**	**100%**

Sources Researchers Survey 2025.

This table show that 35 respondent representing 70% of the total respondents that you have contingency plans in place for supply chain disruption while 15 respondents representing 30% of the total choose 'NO'

Question 7: Is there regular communication between Bovas and it supplier?

CHOICE	NO OF RESPONSES	PERCENTAGE %
YES	45	90
NO	5	10
Total	**50**	**100%**

Sources Researchers Survey 2025.

From the above 45 respondents representing 90% of the total respondents chain that there is regular communication between Bovas and 15 supplier while 5 respondent representing 10% of the total disagree.

Question 8: Does Bovas collaborate with suppliers to improve products or service delivery?

CHOICE	NO OF RESPONSES	PERCENTAGE %
YES	40	80
NO	10	20
Total	**50**	**100%**

Sources Researchers Survey 2025,

This table above shows that 40 respondents representing 80% of the total respondents agree that bovas collaborate with supplier to improve products or service delivery while 10 respondent representing 20% of the total disagree the passed question.

Question 9: Do suppliers comply with agreed delivery times and quality standard

CHOICE	NO OF RESPONSES	PERCENTAGE %
YES	30	60
NO	2	40
Total	**50**	**100%**

Sources Researchers Survey 2025.

From the above 30 respondents representing 60% of the total indicated YES that suppliers comply with agreed delivery times and quality standard while 20 respondent representing 40% of the total chose NO.

Question 10: Is the supply chain of bovas responsible to changes in customer demand?

CHOICE	NO OF RESPONSES	PERCENTAGE %
YES	35	70
NO	15	30
Total	**50**	**100%**

Sources Researchers Survey 2025.

This table show above 35 respondents representing 70% of the total indicated YES while the remain 15 respondents representing 30% of the total disagree.

Question 11: Are petroleum products consistently available at your station?

CHOICE	NO OF RESPONSES	PERCENTAGE %
YES	45	90
NO	5	10
Total	**50**	**100%**

Sources Researchers Survey 2025.

From this table above shows 45 respondents representing 90% of the total respondents agree that petroleum products consistently available at your station while 5 respondents

representing 10% of the total respondents disagree.

Question 12: Does bovas experience delays in products supply from suppliers?

CHOICE	NO OF RESPONSES	PERCENTAGE %
YES	40	80
NO	10	20
Total	**50**	**100%**

Sources Researchers Survey 2025.

This table shows that bovas experience delays in product supply from supplier because 40 respondent representing 80% of the total strategy agree while the remaining 10 respondents representing 20% of the total disagree.

Question 13: Is inventing managed efficiently to avoid excess or shortage?

CHOICE	NO OF RESPONSES	PERCENTAGE %
YES	30	60
NO	20	40
Total	**50**	**100%**

Sources Researchers Survey 2025.

From the table above show 30 respondent representing 60% of the total indicated YES while the remaining 20 respondent representing 40% choose 'NO'.

Question 14: Has SRM helped reduce supply cost?

CHOICE	NO OF RESPONSES	PERCENTAGE %
YES	45	90
NO	5	10
Total	**50**	**100%**

Sources Researchers Survey 2025.

This table shows above 45 respondent representing 90% of the total respondent strongly agree that SRM helped reduce supply cost while 5 respondent representing 10% of the total disagree.

Question 15: Has SRM improve customer satisfaction of your station

CHOICE	NO OF RESPONSES	PERCENTAGE %
YES	35	70
NO	15	30
Total	**50**	**100%**

Sources Researchers Survey 2025.

From this table above shows that SRM improved customer satisfaction at your station cause 35 respondents representing 70% accepted while the removing 30 respondents representing 30% disagree.

Question 16: Has SRM improved customer satisfaction at your station?

CHOICE	NO OF RESPONSES	PERCENTAGE %
YES	25	50
NO	25	50
Total	**50**	**100%**

Sources Researchers Survey 2025.

From the table shows 25 respondents representing 50% of the total indicated YES that SRM improve customer satisfaction at your station while the remaining 25 respondent representing 50% of the total choose NO.

Question 17: Would improved SRM lead to greater supply chain efficiency?

CHOICE	NO OF RESPONSES	PERCENTAGE %
YES	50	100
NO	-	-
Total	**50**	**100%**

Sources Researchers Survey 2025.

This table above shows that improved SRM will lead to greater supply chain efficiency because all 50 respondents representing 100% of the total agree while no respondent disagree.

Question 18: Are suppliers regularly evaluated for their performance?

CHOICE	NO OF RESPONSES	PERCENTAGE %

YES	30	60
NO	20	40
Total	**50**	**100%**

Sources Researchers Survey 2025.

From this table above 30 respondents representing 60% of the total indicated YES that suppliers regularly evaluated for their performance while 20 respondent representing 40% of the total choose NO,

Question 19: Has strong supplier relationship management improved bovas supply chain operation?

CHOICE	NO OF RESPONSES	PERCENTAGE %
YES	40	80
NO	10	20
Total	**50**	**100%**

Sources Researchers Survey 2025.

This table above shows 40 respondent representing 80% of the total strongly agree that strong supplier relationship management improved bovas supply chain operation while the remaining 10 respondents representing 20%of the total disagree.

Question 20: Does effective supplier management contribute to timely delivery?

CHOICE	NO OF RESPONSES	PERCENTAGE %
YES	35	70
NO	15	30
Total	**50**	**100%**

Sources Researchers Survey 2025.

From this table above shows 35 respondent representing 70%of the total agree that effective supplier management contribute to timely delivery while the remaining 15 respondent representing 30% of the total choose 'NO'

4.2 **TEST OF HYPOTHESIS**

Testing of the hypothesis formulated for this study will be done using the chi-square hypothesis testing method it examines whither two samples are different and to

commonly used when the variances of two normal distribution are unknown and chi-square formular.

Is: (X2) =E (0-e)2
e
E = Summation
0 = Observe
E = Expected frequency

HYPOTHESIS TESTING: HYPOTHESIS ONE

Ho: SRM has no financial strategy in place HI: SRM

HI: SRM has no financial strategy in place HI: SRM has financial strategy in place HI: SRM has financial using in place.

Using the chi-square (X2) analysis thus

(X2) = E(0-e)2
e

Chi – Square Tabular- Calculation

Choice	O	E	(O-E)	(O-E)2	(O-E)2/E)
YES	7	40	33	1089	27.225
NO	3	10	7	49	4.9
					X232.125

Decision Rule:

Based on the results obtained as showed in the table above, the calculated result (X2)32.125>Xtab(2-o) we will therefore reject the null hypothesis (Ho)that state that: SRM has no financial strategy in place and accept that the alternate hypothesis (HI) which state that! HI: SRM has financial strategy in place.

HYPOTHESIS TWO

HO: there is no regular communication between bovas and is suppliers.

HI: There is regular communication between bovas and is suppliers

Using the chi-square (X2) analysis this.

Formula is: (X2)-E(0-e)2
e

Chi – Square Tabular- Calculation

Choice	O	E	(O-E)	(O-E)2	(O-E)2/E)

YES	43	25	18	324	12.96
NO	7	25	-18	324	12.96
					25.96

Decision Rule:

The calculated chi-square value (X2)25.92 ios grater that the table X tab (2.0)we will therefore reject the null hypothesis (Ho) that state that: there is no regular communication between bovas and is suppliers and accepted the alternate hypothesis (HI)which state that: there is regular communication between bovas and is suppliers.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 INTRODUCTION

This study will focus on the impact of supplier relationship management on the efficiency of supply chain this chapter focuses on summary of findings conclusion recommendation and references.

5.2 SUMMARY OF FINDING

In the cause of this research work researcher was able to know the importance of procurement function is the organizational success greatly depends on the success of the procurement and this makes suppliers selection on important function of any organization selection of the right suppliers ensure quality products and services achieves good quality the right specification and the necessary technical support when required.

From the study respondent indicated that financial status checks were not important this mentality should be change as suppliers with cash flow problems will find it difficult obtaining materials and late delivery time may not be experience. Supplier ability to bring in extra products or offer additional services at short note received on approval rate of 3.88. This rating should be increase because of the dynamic nature of business so as to keep the business competitive the most important procurement decisions focus on selecting the correct suppliers.

The findings also indicate the through strategic partnerships in the form of joint improvement achieves and understanding suppliers capabilities the organization has been able to enhance continuity of supply. Continuous improvement of processes along the supply chain has led to cost reduction and better relationship that has in here reduced conflicts in the supply chain and when they occur due to unavoidable circumstance they or solved amicable sharing of information along the supply chain has skengthread long term cooperation and coordination helping the organization attain better levels productively and competitiveness which are difficult to achieve through normal supplier relationship.

The study confirmed that procurement practices achievely contribute organizational performance procurement practices enable organizational active differentiation through better customer services and reduced lend times. The findings also reveal how the use of enterprise resources planning (FRP) has made it enriser for the procurement department to handle purchases and both internal and external customers in a more efficient and effective ways. Procurement has enhanced the needs to purchase the product according to the detailed specification and required quality standards. They has increased the efficiency of the supply chain by reducing cost incurred from unmet specification and the return or use of goods accountability and transparency in procurement through the use of sound integrated procurement systems has greatly improve the movement or information from source to end user and intain entranced organization performance.

Belter qualification in the procurement department helped to increase operational efficiency and inspire about productivity of ethics and culture in the organization has to high extent beer adopted through the implementation of strict codes of contrict punishment authority in the procurement department this has highly promoted efficiency in the organization and improved the process in the supply chain. Here on always except on situation where by procurement supervisor and commercial manager have to argue for several hairs to arrive an issue which is not supposed to the taker place where the two are matter between professional colleagues.

In the course of this research work the researcher was work to realize that the use of impact of procurement research in a manufacturing organization helps for the right to ensure the right materials are delivered at the right time from the right source to ensure continuity on project without delay to ensure that they confirm to the right quality and quantity as specified the order.

5.3 **CONCLUSION**

The study further showed that understanding and practicing of supplier relationship management ensures quality of suppliers, timely deliveries and better information flow. This is short term guarantee on increase in productivity reduction inventory and cycle time while in long term organization will experience increase in market share and profit for all members of the supply chain. In term of effectiveness and efficiency supplier development was noted to play a significant role in enhancing effectiveness and efficiency on the procurement performance hence, there is need for supplier recognition and training in order to upgrade the performance and capabilities of the weakest links in their supply chain by adopting essential part of e-procurement to assist in managing and developing cost reduction strategies.

5.4 **RECOMMENDATIONS.**

Through supplies development relationship the organization is able to help suppliers improve their product quality through training this is the long run increase in efficiency. It

is therefore recommended that bovas petroleum station achieve good return investment in their suppliers.

It is recommended that bovas petroleum station invest in new system of e-sourcing in procurement where supplies and biders are encouraged bid online. This will enhance efficiency the reduction in procurement process performance in any given organization is used as indicator for measuring the capability of the organization on how it can run its activities. It is recommended that oil firms stakeholder and plosive makes have to strategize on vibrant strategies and policies that and promote performance of the organization. Studies have shown that close understanding and trustworthy collaboration between supply chain partners improve procurement performance in the organization. They study therefore recommends that in order to improve procurement performance all parties in supply chain should understand each other business better and assist in improving each others procurement performance.

REFERENCES

Arumugan V.ooi K.B. 8 pong T.C (2008). SRM practice and quality management performance investigation of their relationship using data from 150 9001! 2000 firms in Malysia the TQM journal 20(6),636-650

Burnet Ken (2012) "supplier relationship in business briefing. Global purchasing 8 supply chain strategies 18 (4) 36-45.

Burton (2009) improving integrity in public procurement journal of public budgeting accounting 8 financial management.

Calendar G.8 Mathew D (2010) The role of transparency and accountability international journal of strategic change management 269-297.

Davila A 8 palmer. R (2013) moving procurement system to the system to the internet. European management journal.

Donaldson (2010) The contingency theory organization Boston; sage publications.

Ellram M (2011) Activities relating to purchasing 8 supplier management involvement in supplier alliance international journal of physical science.

F.L.K. (2006) procurement and supply chain management THE ED London person education ltd.

Franked J.R 8 Wallen N.E (2014) How to design and evaluate organization structured. New York! Me Graw. Hill higher education.

Croom S. Romand P. Giannakis M. (2010) supply chain management an analytical framework for critical literation review. European journal of procurement and supply chain management 6.67-83.
Gold, S. Searing S.8 Beske P |(2010) suitable supply chain management and inter organizational resources a literature review, co-operate social responsibility and environment management, 17 (4) 230-245.

Kosge M.C 8 Gitan M. (2016) effect supplier relationship management on organizational performance!

Kilpatrick (2010) international journal of research and economics.

Kothan C.R (2012) research methodology methods and techniques.

Leadership (2009) cooperate governance and leadership Ilorin.

QUESTIONNAIRE
SECTION A
Please tick (√) the appropriate option and fill the space provided
1. Sex: Male ( ), Female ( )
2. Qualification: BSc ( ), HND ( ) NCE/NDC ( ),
3. Marital Status: Single ( ), Married ( )
Age: 18 – 30 ( ), 31 – 40 ( ), 41 – 50 ( )
51 above ( ),
4. Working status: Management ( ), Senior Staff ( ),
Junior Staff ( )
SECTION B
RESEARCH QUESTIONS
1. Does you have a formal SRM strategy in place?
Yes ( ) No ( )
2. Has SRM improved supply chain efficiency?
Yes ( ) No ( )

3. Do you have supplier development programs in place?

Yes ( ) No ( )

4. Do you use technology to support SRM practices?

Yes ( ) No ( )

5. Do you regularly evaluate and adjust your SRM strategy?

Yes ( ) No ( )

6. Do you have contingency plans in place for supply chain disruption?

Yes ( ) No ( )

7. Is there regular communication between bovas and its suppliers?

Yes ( ) No ( )

8. Does bovas collaborate with suppliers to improve product or service delivery? Yes ( ) No ( )

9. Do suppliers comply with agreed delivery time and quality standards?

Yes ( ) No ( )

10. Is the supply chain at bovas responsive to changes in customer demand?

Yes ( ) No ( )

11. Are petroleum products consistently available at your stations?

Yes ( ) No ( )

12. Does bovas experience delays in product supply from suppliers?

Yes ( ) No ( )

13. Is inventory management efficiently to avoid excess or shortages?

Yes ( ) No ( )

14. Has SRM helped reduce supply cost? Yes ( ) No ( )

15. Has SRM improved customer's satisfaction of your station?

Yes ( ) No ( )

16. Do you think supplier relationship impact overall business performance?

Yes ( ) No ( )

17. Would improved SRM lead to greater supply chain efficiency?

Yes ( ) No ( )

18. Are suppliers regularly evaluated for their performance?

Yes ( ) No ( )

19. Has strong supplier relationship management improved bovas supply chain operation? Yes ( ) No ( )

20. Does effective supplier management contribute to timely deliveries?

Yes ( ) No ( )