

**SUPPLY CHAIN PRACTICES AND ORGANISATIONAL PERFORMANCE IN SMALL  
AND MEDIUM SCALE IN BENIN CITY**



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**UNIVERSITY OF BENIN**

**BENIN CITY**

**OCTOBER, 2025**

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***BEING A RESEARCH PROJECT WRITTEN AND SUBMITTED TO THE DEPARTMENT  
OF BUSINESS ADMINISTRATION, FACULTY OF MANAGEMENT SCIENCES,  
UNIVERSITY OF BENIN, EDO STATE, NIGERIA, IN PARTIAL FULFILMENT OF THE  
REQUIREMENTS FOR THE AWARD OF BACHELOR OF SCIENCE (B.Sc.) DEGREE IN  
BUSINESS ADMINISTRATION.***

**OCTOBER, 2025.**

## DECLARATION

I, **Ono-Ebosele Omokhodion Kessington** declare that this project work is entirely my own work and composition. The work embodied in this project has not been submitted in candidature for any degree and is not concurrently being submitted for any other degree. All references made to the works of other persons have been duly acknowledged.

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**Ono-Ebosele Omokhodion Kessington**

*(Project Student)*

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**Date**

## CERTIFICATION

This is to certify that this project research was carried out by **Ono-Ebosele Omokhodion Kessington** Matriculation number: **MGS2104816** in the Department of Business Administration, Faculty of Management Science, University of Benin, Benin City, Edo state, Nigeria. It is adequate in scope and quality in partial fulfilment of the requirement for the award of **BACHELOR OF SCIENCE (BSc.)** degree in Business Administration.

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**Dr. Martins Ehichoya**

*(Project Supervisor)*

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**DATE**

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**Dr. S. A. Adekunle**

*(Project Coordinator)*

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**DATE**

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**Dr. D.O. Ogbeide**

*(Head of Department)*

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**DATE**

## **DEDICATION**

I wholeheartedly dedicate this report to my Heavenly Father and my ever supportive, understanding and loving parents and also to my loved ones for their support and care.

## ACKNOWLEDGEMENT

First of all, I remain indebted and thankful to God Almighty for His grace, mercy, guidance, abundant blessings, and for giving me the opportunity to carry out this program successfully.

Thank you, Lord!

I wish to express my sincere appreciation to my supervisor, Dr. Martins Ehichoya, who took the time to read through my work, critique it, and offer valuable advice. My profound gratitude also goes to my H.O.D, Dr. D. O. Ogbeide, my amiable lecturers Dr. S. A. Adekunle and Dr. (Mrs.) M. E. Ehigie, as well as my dedicated course advisor, S. O. Omigie Ph.D., FIMC, for their immense support, encouragement, and the knowledge imparted on me. I am truly grateful to you all.

My appreciation extends to my adorable family, my lovely siblings, aunties, uncles, friends, and my amazing coursemates. Thank you for your unending love, support, and prayers. May the good Lord continue to bless you all.

To my loving and dependable parents, Mr. & Mrs. Ono-Ebosele, there are no words that can effectively convey my gratitude for all you have done. I am truly grateful for your constant display of love, sacrifice, and support. Thank you so much.

My heartfelt gratitude sincerely goes to you all. I truly appreciate everything, and I remain humble.

To God be the glory!

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## **ABSTRACT**

This study examined the relationship between supply chain practices specifically customer/supplier management practices (CSUMPi), technology adoption (TEADi), and integrated supply chain management practices (ISCMPI) and organizational performance (ORGPE). Using regression analysis, the study established a strong positive relationship between the independent variables and organizational performance. The findings imply that effective supply chain integration, technological innovation, and strong customer-supplier relationships are key drivers of improved efficiency, competitiveness, and performance. The study contributes to knowledge by providing empirical evidence of these relationships and by emphasizing the importance of digital transformation and integration in enhancing organizational outcomes. It also offers valuable insights for firms, particularly in developing economies, on how to optimize supply chain strategies for sustainable growth. The study concludes with recommendations for strengthening integration, investing in technology, and building collaborative supply chain relationships to achieve superior organizational performance.

# CHAPTER ONE

## INTRODUCTION

### 1.1 Background to the study

Supply chain management (SCM) has become a critical factor influencing organisational performance across various industries worldwide. In recent years, the emphasis on effective supply chain practices has increased significantly, especially among Small and Medium Scale Enterprises (SMEs), which play a pivotal role in economic development and job creation in developing countries (Christopher, 2016). SMEs in Benin City, Nigeria, represent a substantial segment of the local economy, providing goods and services that support both local consumption and broader regional markets. Despite their importance, many SMEs face challenges related to inefficient supply chain management, including poor procurement processes, inadequate inventory control, and weak logistics systems (Adewale & Akinyele, 2018). These inefficiencies often translate into suboptimal organisational performance, limiting the capacity of SMEs to compete effectively in increasingly dynamic and globalized markets.

The relationship between supply chain practices and organisational performance is widely acknowledged in academic and practical contexts. Well-coordinated supply chains can enhance operational efficiency, reduce costs, improve customer satisfaction, and increase profitability (Mentzer, DeWitt, Keebler, Min, Nix, Smith, & Zacharia 2001). For SMEs in Benin City, effective SCM practices such as supplier relationship management, demand forecasting, and inventory optimization could lead to improved business outcomes, including higher productivity and better market positioning (Ojo & Fadeyi, 2020). However, SMEs in this region are often constrained by limited resources, technological gaps, and lack of skilled personnel, which hamper their ability to adopt and implement modern supply chain strategies (Okafor & Nwankwo, 2019). Furthermore, socio-economic factors and infrastructural deficiencies in Benin

City contribute to logistical challenges, making it imperative to explore how tailored supply chain interventions could enhance SME performance.

Given these considerations, it becomes crucial to examine the current supply chain practices among SMEs in Benin City and their impact on organisational performance. This study aims to fill the gap in empirical data by assessing how various SCM components such as procurement, inventory management, and distribution affect key performance indicators within SMEs. Understanding these dynamics will provide valuable insights for policymakers, business managers, and stakeholders seeking to boost the competitiveness and sustainability of SMEs in Benin City. Moreover, it will contribute to the broader literature on supply chain management in emerging economies by highlighting contextual factors that influence the success of SMEs in managing their supply chains effectively (Chopra & Meindl, 2019). Ultimately, this research intends to offer practical recommendations for improving supply chain practices to foster organisational growth and resilience in the challenging business environment of Benin City.

## **1.2 Statement of the research problem**

Small and Medium Scale Enterprises (SMEs) in Benin City, Nigeria, are pivotal to the local economy, contributing significantly to employment and economic development. However, despite their importance, many of these enterprises face challenges in achieving optimal organisational performance, often due to suboptimal supply chain practices. Previous studies have highlighted that SMEs in Nigeria generally exhibit low levels of supply chain management (SCM) adoption, which adversely affects their operational efficiency and competitiveness (Oladoye & Akinlo, 2023). In Benin City, this issue is compounded by infrastructural deficits, such as poor road networks and unreliable power supply, which further hinder effective SCM implementation (Nte & Omede, 2023). Therefore, there is a need to investigate the specific

supply chain practices employed by SMEs in Benin City and their impact on organisational performance.

A significant gap in existing literature is the lack of empirical studies focusing on the relationship between SCM practices and organisational performance specifically within the context of Benin City. While research has been conducted in other regions of Nigeria, such as Lagos State, findings may not be directly applicable to Benin City due to differing socio-economic and infrastructural conditions (Omigie & Kubeyinje, 2022). This disparity underscores the necessity for localized research to understand how specific SCM practices influence the performance of SMEs in Benin City. Without such context-specific studies, recommendations for improving SME performance may not be effective or relevant to the unique challenges faced by these enterprises in Benin City.

Another critical gap is the under-exploration of the role of technology in enhancing SCM practices among SMEs in Benin City. While global studies have demonstrated the positive impact of technology adoption on SCM efficiency and performance (Zhang *et al.*, 2025), there is limited research on how SMEs in Benin City leverage technological tools such as Enterprise Resource Planning (ERP) systems, cloud-based SCM solutions, and data analytics (Qoblex, 2025). The adoption of such technologies could potentially streamline operations, reduce costs, and improve decision-making processes. However, factors such as high implementation costs, lack of technical expertise, and inadequate infrastructure may impede their adoption in Benin City.

Furthermore, existing studies often focus on individual aspects of SCM, such as procurement or inventory management, without considering the integrated nature of these practices and their collective impact on organisational performance. In Benin City, SMEs frequently operate in silos,

with limited coordination between different supply chain functions, leading to inefficiencies and suboptimal performance (Adekunle et al. 2022). A holistic approach that examines the interrelationships between various SCM components is essential to identify synergies and areas for improvement. Such an approach would provide a more comprehensive understanding of how integrated SCM practices can enhance the overall performance of SMEs in Benin City.

Lastly, there is a lack of research examining the influence of external factors, such as government policies, economic conditions, and market dynamics, on the SCM practices and performance of SMEs in Benin City. External factors play a significant role in shaping the operational environment of SMEs and can either facilitate or hinder the effectiveness of SCM practices (Omorodion & Gbandi, 2024). In Benin City, factors such as fluctuating exchange rates, inconsistent power supply, and regulatory challenges can impact the cost and reliability of supply chain operations. Understanding how these external factors interact with internal SCM practices is crucial for developing strategies that enhance SME performance in the face of external challenges.

### **1.3 Research questions**

Based on the above, the following are the research questions:

- 1 How do current supply chain management practices affect the organisational performance of Small and Medium Scale Enterprises (SMEs) in Benin City?
- 2 To what extent does technology adoption influence the efficiency of supply chain management and organisational performance among SMEs in Benin City?
- 3 How do integrated supply chain management practices across procurement, inventory, and logistics impact the overall performance of SMEs in Benin City?

### **1.4 Research aim and objectives**

The study explores how supply chain practices influence organisational performance in small and medium scale in Benin city. The specific objectives are:

- 1 What is the relationship between current supply chain management practices and organisational performance among SMEs?
- 2 How does technology adoption influence the efficiency of supply chain management and organisational performance among SMEs?
- 3 Does integrated supply chain management practices across procurement, inventory, and logistics impact the organisational performance of SMEs?

### **1.5 Research Hypothesis**

The following are the research hypothesis based on the above:

- H<sub>01</sub>: Current supply chain management practices and organisational performance do not have significant relationship.
- H<sub>02</sub>: Technology adoption and organisational performance do not have significant relationship.
- H<sub>03</sub>: Integrated supply chain management practices across procurement, inventory, and logistics and organisational performance does not have significant relationship.

### **1.6 Significance of the study**

**SME Owners and Managers:** They will gain valuable insights into effective supply chain practices tailored to their unique operational environment. This knowledge can help them optimize procurement, inventory, and logistics processes, ultimately improving efficiency, reducing costs, and boosting organisational performance.

**Policy Makers and Government Agencies:** The study will provide evidence-based data that can inform policies aimed at supporting SMEs. By understanding the supply chain challenges these

enterprises face, government bodies can design targeted interventions, infrastructure improvements, and regulatory frameworks that foster a more conducive business environment.

**Suppliers and Distributors:** Suppliers and distributors engaged with SMEs will benefit from improved coordination and collaboration strategies identified in the study. Enhanced supply chain relationships can lead to more reliable demand forecasting, better payment terms, and streamlined logistics, which increase mutual profitability.

**Financial Institutions and Investors:** Banks, microfinance institutions, and investors will gain better clarity on the operational efficiencies of SMEs related to their supply chains. This can guide lending decisions, risk assessments, and investment strategies, enabling financial support to more sustainable and high-performing businesses.

**Academic and Research Institutions:** Researchers and educators will benefit from localized empirical data that fills gaps in the literature regarding supply chain management in developing economies. This can spur further research, curriculum development, and knowledge dissemination focused on SME growth and competitiveness in Benin City and similar contexts.

## **1.7 Scope of the study**

This study focuses on the subject matter of supply chain practices and their impact on organisational performance within Small and Medium Scale Enterprises (SMEs). Specifically, it examines various aspects of supply chain management, including procurement, inventory management, logistics, and technology adoption, and how these elements influence the operational efficiency and overall performance of SMEs. The research aims to identify key supply chain challenges and opportunities that affect the growth and sustainability of SMEs in the target location. Geographically, the study is confined to Benin City, the capital of Edo State

in Nigeria. Benin City is selected due to its vibrant commercial activities and the significant presence of SMEs that contribute to the local economy. The research will focus on SMEs operating within this urban area, enabling a detailed exploration of the unique socio-economic and infrastructural factors that influence supply chain practices in this specific context.

This geographical focus allows for the generation of insights that are relevant and actionable for businesses and policymakers within Benin City. The time frame of the study covers a recent period of three years, from 2022 to 2025. This duration is chosen to capture current supply chain practices and organisational performance metrics within the SMEs, considering recent economic developments, technological advancements, and changes in the business environment. The time frame also ensures that the findings reflect contemporary realities and challenges faced by SMEs, making the recommendations timely and applicable for immediate and future improvements.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

## **2.1 Introduction**

This chapter presents a comprehensive review of relevant literature related to supply chain practices and organisational performance, particularly within the context of Small and Medium Scale Enterprises (SMEs). It begins with a conceptual exploration of organisational performance and the key factors that influence it. Following this, the chapter examines the various supply chain practices, highlighting essential components and common challenges faced by SMEs. Emphasis is placed on the relationship between supply chain practices and organisational performance, supported by theoretical and empirical evidence. The chapter also outlines a conceptual framework and theoretical foundations guiding the study. Finally, a critical review of existing empirical studies is provided, culminating in the identification of research gaps that justify the need for this study. This structured review lays the groundwork for understanding how supply chain management impacts the operational success of SMEs, particularly in the context of Benin City.

## **2.2 Organisational Performance**

Organisational performance is a multidimensional concept that refers to how effectively an organisation achieves its goals and objectives. It is often measured through various indicators such as profitability, productivity, market share, customer satisfaction, and employee engagement (Kaplan & Norton, 2004). In the context of Small and Medium Scale Enterprises (SMEs), organisational performance is particularly critical because it determines the sustainability and competitiveness of the enterprise in a rapidly changing business environment. According to Richard et al. (2009), performance is not only about financial outcomes but also includes operational efficiency, innovation, and the ability to adapt to environmental changes. As

SMEs typically operate with limited resources, the ability to manage these resources effectively becomes central to their performance outcomes.

Several scholars have emphasized that organisational performance is influenced by both internal and external factors. Internally, elements such as leadership style, employee competence, organisational structure, and strategic orientation play a vital role in determining performance outcomes (Yildiz & Karakaş, 2012). Externally, market competition, customer preferences, economic policies, and technological trends also shape how organisations perform. For SMEs in developing economies like Nigeria, performance is often hindered by challenges such as inadequate infrastructure, poor access to finance, and regulatory constraints (Okpara & Kabongo, 2009). Despite these challenges, SMEs that can effectively align their internal capabilities with market demands tend to outperform those that do not, underscoring the importance of strategic alignment in organisational success (Amah & Ahiauzu, 2013).

Furthermore, modern perspectives on organisational performance stress the importance of non-financial metrics, especially in evaluating long-term sustainability. The balanced scorecard approach, for example, integrates financial measures with customer perspectives, internal business processes, and learning and growth metrics to provide a more holistic view of performance (Kaplan & Norton, 2001). In SMEs, these non-financial indicators are particularly relevant because they capture early signals of change and innovation that may not yet reflect in financial outcomes. As noted by Santos and Brito (2012), organisational performance must be understood not just in terms of outcomes but also in relation to the processes and practices that lead to those outcomes. This broader view of performance is critical in assessing how supply chain practices, among other operational strategies, can influence both the efficiency and effectiveness of SMEs.

Organisational performance continues to attract extensive academic and practical attention, especially within the context of small and medium-sized enterprises (SMEs), due to its direct link to competitiveness and business survival. Performance in SMEs is often assessed using both quantitative and qualitative indicators that capture the effectiveness and efficiency of operations. According to Amah and Baridam (2012), organisational performance can be categorized into financial (e.g., profitability, return on investment) and non-financial (e.g., customer satisfaction, employee retention) outcomes. In many SMEs, especially those in emerging markets, non-financial performance indicators serve as early warnings of operational challenges or growth potential, making them critical to management decision-making. As business environments become increasingly volatile, the ability of SMEs to monitor performance through diverse lenses becomes more important.

The dynamic nature of today's business environment has made organisational performance more complex to define and evaluate. Performance is no longer solely based on output or revenue but also includes adaptability, innovation, and long-term sustainability (Ibrahim & Shariff, 2016). SMEs in particular must respond quickly to changing customer preferences, technological advancements, and economic disruptions. In response, researchers like Almatrooshi, Singh, and Farouk (2016) argue that strategic capabilities such as flexibility, innovation, and supply chain integration now play a vital role in determining organisational success. Thus, in modern literature, performance is viewed as the result of a combination of strategic alignment, operational capabilities, and market responsiveness all of which are interlinked and often influenced by supply chain practices.

Moreover, it is widely accepted that organisational performance is not achieved in isolation but is shaped by relationships with stakeholders, including suppliers, customers, regulators, and

employees. For SMEs, especially those operating in challenging environments like Benin City, performance outcomes are influenced by how well firms manage these relationships within the constraints of limited resources (Ogunlana, 2021). A firm's ability to collaborate effectively within its supply chain can significantly impact inventory control, lead time, customer satisfaction, and ultimately, profitability. According to Musa and Ibrahim (2020), performance improvement in SMEs requires not just internal efficiency but also external alignment, especially in areas such as procurement, logistics, and distribution. Therefore, understanding organisational performance in SMEs involves exploring both internal competencies and external operational linkages.

### **2.3 Factors affecting organisational performance**

**Managerial skills and leadership competence:** Managerial skills encompassing leadership ability, decision-making, strategic thinking, and operational management are often cited as crucial determinants of SME performance (Almatrooshi, Singh, & Farouk, 2016). In the Nigerian context, many SMEs suffer from inadequate managerial competence, which limits their ability to plan strategically, adapt to changes, or effectively implement processes. For instance, many SME managers rely heavily on trial-and-error techniques instead of structured management practices, often due to limited education or formal training in leadership or strategic management (Amah & Baridam, 2012). Furthermore, in South West Nigeria, a study found that management skills of SME operators, along with organisational structure and innovation, are among the most critical success factors highlighting that strong managerial competence significantly improves performance (Ajagbe, Sholanke, & Ismail, 2021). When managers possess good leadership and technical expertise, they are better equipped to align internal operations with strategic goals,

allocate resources effectively, and respond rapidly to market changes, thus enhancing efficiency, innovation, and growth (Lawal, Worlu, & Ayoade, 2020).

On the other hand, weak leadership often results in strategic misalignment, poor communication, low employee morale, and operational inefficiencies. SMEs with limited managerial skills frequently fail to adopt strategic management practices such as environmental scanning, performance monitoring, and feedback systems, which are essential for maintaining long-term competitiveness (Ibrahim & Shariff, 2016). For example, a study conducted among SMEs in Lagos revealed that while many businesses engage in strategy formulation, poor implementation and evaluation mechanisms hinder any real improvement in performance outcomes (Musa & Ibrahim, 2020). Thus, enhancing managerial capacity through targeted interventions such as leadership development programs, mentoring, and formal business education can significantly boost organisational performance by improving decision-making, resource utilisation, strategic alignment, and adaptability in dynamic environments (Ogbo & Ukpere, 2014).

**Access to Finance and Financial Resources:** Access to finance is another major factor affecting organisational performance in SMEs. Lack of adequate capital can restrict investment in new technologies, expansion, marketing, hiring skilled personnel, or even maintaining operations. In Nigeria, SMEs often face stringent loan conditions, lack of collateral, high interest rates, and weak or non-existent venture capital ecosystems (Okpara, 2011; Ogujiuba, 2020). These financial barriers limit operational scale and innovation. Studies have shown that SME performance correlates positively with ease of access to financial support (Adebisi & Gbegi, 2021). Without adequate financial resources, even well-managed firms cannot invest in supply chain improvements, customer service enhancements, or compliance with regulatory requirements, all of which affect performance (Obokoh & Goldman, 2016).

When SMEs secure stable, affordable finance, they can invest in capacity building, infrastructure, and risk mitigation (Lawal, et al., 2020). Financial constraints also influence how SMEs respond to changes, adopt new technology, or expand operations (Uchenna & Duru, 2023). Therefore, improving access to finance whether through favourable loan terms, grants, subsidies, or public-private partnership programs is essential for enhancing organisational performance in SMEs. It is widely agreed that the Nigerian government and financial institutions must develop more inclusive, SME-friendly financing models to support growth and competitiveness (Afolabi, 2013; Adelekan & Oni, 2022).

**Strategic Planning and Entrepreneurial Orientation:** Strategic planning and entrepreneurial orientation are deeply tied to organisational performance. Strategic planning involves setting goals, environmental scanning, strategy formulation, implementation, and evaluation (Wang, Walker, & Redmond, 2010). Entrepreneurial orientation, on the other hand, covers dimensions such as innovativeness, proactiveness, risk-taking, and competitive aggressiveness (Lumpkin & Dess, 2001). Literature suggests that SMEs with strong strategic planning tend to perform better because they can anticipate environmental shifts and align resources accordingly (Ogundele, *et al.*, 2022). For example, a study of SMEs in Lagos State found a significant positive relationship between strategic planning and performance and highlighted that entrepreneurial characteristics, such as proactiveness and innovation, moderate this relationship (Ogunnaike, *et al.*, 2021). A Nigerian study by Alege and Adegbite (2020) confirmed that strategic management practices including environmental scanning, strategy formulation, implementation, and evaluation have a direct and significant impact on SME performance.

However, many firms failed to benefit fully due to poor implementation and weak evaluation mechanisms. Entrepreneurially oriented SMEs are more likely to innovate, respond to customer

demands, explore new markets, or introduce new products and services, thereby increasing their competitive advantage and performance outcomes (Ibrahim & Shariff, 2016). Conversely, the absence of strategic orientation often results in reactive decisions, under-utilisation of resources, missed growth opportunities, and eventually poor performance (Abiodun & Kida, 2021). Therefore, promoting strategic planning capacity and cultivating entrepreneurial traits among SME owners/managers can significantly enhance organisational performance, particularly in dynamic and uncertain business environments. As noted by Adeola and Ogbari (2022), firms that integrate strategic planning with entrepreneurial orientation are more resilient, innovative, and adaptive, giving them a performance edge over less strategically minded competitor.

**Macroeconomic and external environmental factors:** Strategic planning and entrepreneurial orientation are deeply tied to organisational performance. Strategic planning involves setting goals, environmental scanning, strategy formulation, implementation, and evaluation (Wang, Walker, & Redmond, 2010). Entrepreneurial orientation, on the other hand, covers dimensions such as innovativeness, proactiveness, risk-taking, and competitive aggressiveness (Lumpkin & Dess, 2001). Literature suggests that SMEs with strong strategic planning tend to perform better because they anticipate environmental shifts and align resources accordingly (Ogundele, Sofoluwe, & Adebisi, 2022). For example, a study of SMEs in Lagos State found a significant positive relationship between strategic planning and organisational performance, and further noted that entrepreneurial characteristics such as innovation and proactiveness moderate this relationship positively (Ogunnaike, Olatunji, & Akinbode, 2021).

A study by Alege and Adegbite (2020) demonstrated that strategic management practices such as environmental scanning, strategy formulation, implementation, and evaluation significantly impact SME performance. However, many SMEs performed poorly because they implemented

or evaluated strategies weakly or incorrectly, revealing a gap between strategy development and execution. Entrepreneurially oriented SMEs are more likely to innovate, adapt to customer changes, explore new markets, or introduce new products and services, thereby improving performance outcomes (Ibrahim & Shariff, 2016). In contrast, a lack of strategic orientation or poor planning often leads to reactive decision-making, wasted resources, missed opportunities, and ultimately, underperformance (Abiodun & Kida, 2021). Therefore, promoting strategic planning capacity and cultivating entrepreneurial traits among SME owners and managers can significantly enhance organisational performance, especially in dynamic and competitive environments. As noted by Adeola and Ogbari (2022), SMEs that integrate strategic planning with entrepreneurial orientation demonstrate higher resilience, agility, and innovation, giving them a competitive edge in the marketplace.

**Innovation, Technology Adoption, and Knowledge Management:** Innovation, adoption of relevant technology, and efficient knowledge management practices are increasingly recognized as essential drivers of organisational performance, especially in SMEs. In both global and local competitive markets, firms that innovate and adopt appropriate technologies can streamline operations, improve product quality, reduce operational costs, and meet customer expectations more effectively (Adeyeye, *et al.*, 2023; Hassan & Olufemi, 2024). A 2025 study conducted in Lagos State found that knowledge management practices such as knowledge sharing, creation, and application have a positive and significant impact on employee performance, which is a fundamental driver of overall organisational performance (IRJEMS, 2025).

This suggests that systems enabling efficient capture and dissemination of knowledge among employees directly support firm-level success. Further, a recent investigation into organizational competence for digital transformation in SMEs emphasized that digital capabilities, along with

continuous learning and adaptability, are crucial for enhancing digital maturity (ArXiv, 2024). Digital maturity, in turn, drives performance by improving operational responsiveness, customer engagement, and strategic decision-making. The adoption of digital tools, including automation, cloud computing, and integrated communication platforms, has been shown to reduce lead times, enhance supply chain visibility, and optimize inventory and production systems (Olayemi & Nwachukwu, 2023).

However, significant challenges hinder technology adoption among Nigerian SMEs. These include the high cost of implementation, limited access to skilled labour, unreliable power supply, and resistance to technological change especially in resource-constrained or rural areas (Uche & Agwu, 2022; Yusuf, *et al.*, 2024). To overcome these barriers, SMEs require strategic support in the form of capacity-building programs, infrastructure development, and favourable policies that lower entry costs into technological systems. Supportive government initiatives, public-private partnerships, and tailored SME training can help bridge the digital divide and empower firms to innovate sustainably. In sum, innovation, technology, and knowledge management are indispensable tools for SMEs seeking to enhance productivity, adaptability, and long-term competitiveness in Nigeria's volatile economic landscape (Bello & Okonkwo, 2024).

## **2.4 Supply chain practices**

Supply Chain Practices (SCP) refers to the array of strategies, routines, relationships, and systems through which firms manage and coordinate flows of materials, information, and finances across upstream and downstream in their networks (suppliers, producers, distributors, customers). Over time, researchers have identified several core practices: supplier relationship management, information sharing and quality, logistics/inventory management, procurement practices, customer relationship management, and lean or sustainable practices (Al-Shboul *et al.*,

2017; Adamu, Sahnun & Gemu, 2025). In SMEs, especially in resource-constrained environments like many parts of Nigeria, adoption of these practices varies in extent and effectiveness, often mediated by contextual constraints (Iyadi Chiyem & Okonji, 2024).

A study by Oladoye and Akinlo (2023) appraised the level of adoption of several supply chain management practices among manufacturing SMEs in Southwestern Nigeria. Their findings showed that strategic supplier partnership, customer relationship management, information sharing (level and quality), and postponement are among the more widely adopted practices. However, even among adopters, the awareness and consistency of execution of such practices were uneven. For example, while many SMEs had some arrangements for supplier partnerships, formal contractual agreements or continuous improvement efforts with suppliers were less common. Similarly, information sharing often suffered from low quality or incomplete data, reducing its utility for decision-making (Oladoye & Akinlo, 2023).

This suggests that beyond merely having supplier ties or data exchange, the quality and reliability of information, and the depth of supplier collaboration (shared goals, trust, communication) matter critically for performance outcomes. Poor-quality information or weak supplier relationships often undermine efforts to optimize inventory, reduce lead times, or manage disruptions effectively. Logistics/inventory management is another practice strongly correlated with performance. Adamu, Sahnun & Gemu (2025) in Nigeria found that among firms surveyed, Inventory Management Practices (IMP), Logistics Management Practices (LMP), and Supplier Relationship Practices (SRP) had significant positive effects on firm performance; procurement practices also showed positive associations though often less strong (Adamu, Sahnun & Gemu, 2025).

Efficient logistics involving timely transportation, good warehousing, reduced transit time and inventory practices (right quantity, just-in-time, safety stock, stock control) help minimize holding costs, reduce stockouts, and improve responsiveness. Sustainability and lean supply chain practices are increasingly emerging in recent literature. For instance, in the consumer goods sector in Nigeria, sustainable supply chain management (SSCM) practices such as supplier relationship management with sustainability criteria, lean operations, environmental considerations were found to enhance financial sustainability of listed firms (Anisulowo *et al.*, 2024). These lean or sustainable practices help firms reduce waste, energy or resource inefficiencies, and often improve public image or compliance, which indirectly supports performance by lowering costs or opening market access.

In cross-country studies, internal integration, postponement, and customer integration are also critical. For example, in Jordanian manufacturing firms, internal integration (coordination among internal departments), information sharing, postponement (delaying final product configuration until demand clarity), and customer integration significantly predicted supply chain efficiency and effectiveness; though some studies found that certain practices like supplier integration or customer integration did not always have uniform effects under different competitive intensity levels (Abdallah, Obeidat & Aqqad, 2014). Despite the identified benefits, multiple challenges inhibit effective SCP adoption in SMEs. These include poor infrastructure (transportation, power), inadequate technical skills, lack of reliable data systems, high cost of implementing IT or supply chain software, weak governance/trust in supplier networks, and small scale which limits bargaining power (Oladoye & Akinlo, 2023).

In summary, literature converges on the idea that various supply chain practices supplier relationship management, information sharing (quality and timeliness), procurement strategies,

logistics and inventory control, lean and sustainable practices positively impact organisational and supply chain performance. However, effectiveness depends heavily on the quality of practice, resources available, managerial commitment, and contextual constraints. For SMEs in Benin City, understanding which of these practices are adopted, at what level, and how constraints influence their outcomes will be essential to designing interventions that improve performance.

## **2.5 Key practices in supply chain practice**

Innovation, adoption of relevant technology and efficient knowledge management practices are increasingly recognized as essential drivers of organisational performance, especially in SMEs. In both global and local competitive markets, firms that innovate and adopt appropriate technologies can streamline operations, improve product quality, reduce operational costs, and meet customer expectations more effectively (Adeyeye *et al.*, 2023; Hassan & Olufemi, 2024). A 2025 study conducted in Lagos State found that knowledge management practices such as knowledge sharing, creation, and application have a positive and significant impact on employee performance, which is a fundamental driver of overall organisational performance (IRJEMS, 2025). This suggests that systems enabling efficient capture and dissemination of knowledge among employees directly support firm-level success.

Further, a recent investigation into organizational competence for digital transformation in SMEs emphasized that digital capabilities, along with continuous learning and adaptability, are crucial for enhancing digital maturity (ArXiv, 2024). Digital maturity, in turn, drives performance by improving operational responsiveness, customer engagement, and strategic decision-making. The adoption of digital tools, including automation, cloud computing, and integrated communication platforms, has been shown to reduce lead times, enhance supply chain visibility, and optimize inventory and production systems (Olayemi & Nwachukwu, 2023). However, significant

challenges hinder technology adoption among Nigerian SMEs. These include the high cost of implementation, limited access to skilled labour, unreliable power supply, and resistance to technological change especially in resource-constrained or rural areas (Uche & Agwu, 2022; Yusuf *et al.*, 2024). To overcome these barriers, SMEs require strategic support in the form of capacity-building programs, infrastructure development, and favourable policies that lower entry costs into technological systems. Supportive government initiatives, public-private partnerships, and tailored SME training can help bridge the digital divide and empower firms to innovate sustainably. In sum, innovation, technology, and knowledge management are indispensable tools for SMEs seeking to enhance productivity, adaptability, and long-term competitiveness in Nigeria's volatile economic landscape (Bello & Okonkwo, 2024).

## **2.6 Challenges of supply chain practices in SMEs**

Small and Medium Enterprises (SMEs) face numerous challenges in implementing effective supply chain practices, which directly impact their organisational performance and competitiveness. These challenges are often exacerbated by resource constraints, infrastructural deficits, and external environmental factors typical in developing economies like Nigeria (Oladoye & Akinlo, 2023). Understanding these challenges is crucial to developing interventions that enable SMEs to optimize their supply chains. One of the primary challenges is limited access to finance. SMEs frequently struggle to obtain sufficient capital needed for investments in supply chain technology, inventory, and process improvements. Banks and financial institutions often perceive SMEs as high-risk borrowers due to lack of collateral and formal financial records, restricting their ability to scale or improve supply chain functions (Adeoye & Elegunde, 2019). Without adequate funding, SMEs cannot afford modern IT systems, automation tools, or engage in strategic supplier development, limiting their operational efficiency.

Another significant challenge is poor infrastructure, including unreliable electricity supply, inadequate transportation networks, and limited internet connectivity. These infrastructural deficits lead to frequent delays, higher transportation costs, spoilage of goods, and disrupted communication flows within the supply chain (Nyangau & Kalui, 2021). In regions like Benin City, poor road conditions and inconsistent power supply affect logistics and inventory management, forcing SMEs to rely on manual processes that are less efficient and more error-prone.

Lack of skilled personnel and managerial competence also hampers supply chain practices. Many SMEs do not have employees with adequate training in supply chain management or related IT systems (Ibrahim & Shariff, 2016). Managers often adopt informal, ad-hoc approaches rather than strategic, data-driven decision-making, which negatively impacts procurement, inventory control, and supplier relations. This skill gap leads to poor forecasting, ineffective negotiation, and weak risk management. Limited technology adoption poses another major hurdle. While technology enhances information sharing, tracking, and real-time decision-making, SMEs often face barriers such as high cost of software, lack of technical expertise, and resistance to change (Ogunnaike, Olatunji, & Akinbode, 2021). Consequently, many SMEs continue to operate on paper-based or spreadsheet systems, which limits the accuracy and timeliness of information crucial for supply chain coordination.

Finally, weak supplier and customer relationship management challenges effective supply chain integration. Trust and collaboration between partners are essential for sharing information and jointly solving problems. However, SMEs often experience fragmented, transactional relationships with suppliers and customers, lacking formal contracts or communication channels (Adekunle, Yusuf, & Shuaibu, 2022). This results in unreliable supplies, quality issues, and

difficulties in responding quickly to market changes. In conclusion, SMEs face interrelated challenges including finance constraints, poor infrastructure, skill shortages, limited technology use, and weak partner relationships, all of which constrain effective supply chain practices. Addressing these barriers requires coordinated efforts from policymakers, financial institutions, and business support organizations to enhance the supply chain capacity and thus improve SME performance.

## **2.7 Relationship between supply chain practices and organisational performance**

### **2.7.1 Current supply chain management practices and organisational performance**

Supply chain management (SCM) practices are widely acknowledged as critical drivers of organisational performance, especially within Small and Medium Enterprises (SMEs) that operate in competitive and resource-constrained environments such as Nigeria. SCM encompasses activities like procurement, inventory management, logistics, supplier collaboration, and information sharing, all aimed at improving efficiency, reducing costs, and enhancing customer satisfaction (Oladele & Akinbode, 2020). Nigerian SMEs that effectively implement these practices often experience improved operational efficiency, profitability, and market responsiveness, which are vital for survival and growth in a challenging business climate (Akinbode & Oladele, 2022).

Empirical evidence from Nigeria supports a positive and significant relationship between SCM practices and organisational performance. For example, Adeoye and Elegunde (2019) found that Nigerian SMEs that embraced strategic supplier relationships and invested in logistics coordination recorded better sales performance and customer retention rates. Similarly, Oladoye and Akinlo (2023) reported that Nigerian manufacturing SMEs that adopted integrated supply chain information systems had superior inventory turnover and reduced lead times, contributing

to improved overall firm performance. These findings underscore that SCM practices are not merely operational tactics but strategic capabilities that enhance competitive advantage.

Moreover, the role of technology in SCM has become increasingly important. Ogunnaike, Olatunji, and Akinbode (2021) emphasized that digital tools, such as Enterprise Resource Planning (ERP) and mobile-based inventory systems, facilitate real-time data sharing, better forecasting, and rapid decision-making, all of which translate into enhanced organisational outcomes. However, the adoption of such technologies remains uneven due to infrastructural and financial constraints prevalent in Nigeria, indicating the need for supportive policies and capacity-building initiatives (Ezenwoke, 2022).

Despite the growing recognition of SCM's importance in Nigeria, several research gaps remain. Firstly, much of the existing research is cross-sectional and descriptive, providing limited insights into the causal mechanisms through which SCM practices affect performance over time (Adeoye & Elegunde, 2019). Longitudinal studies tracking SMEs' SCM evolution and performance outcomes are lacking. Secondly, while several studies address the adoption of SCM practices broadly, there is inadequate exploration of the contextual factors such as infrastructural deficits, cultural norms, and government policy that moderate the effectiveness of SCM in Nigerian SMEs (Oladele & Akinbode, 2020). These contextual factors may significantly alter the impact of SCM on organisational performance but remain underexplored.

Thirdly, the heterogeneity within the SME sector differentiated by size, industry, and maturity is seldom considered in SCM research. Most studies aggregate SMEs as a homogenous group, potentially masking important differences in SCM challenges and benefits (Ezenwoke, 2022). More disaggregated studies would help tailor SCM strategies to specific SME subgroups. Finally, there is limited investigation into the integration of sustainability and risk management practices

within SCM frameworks in Nigerian SMEs, despite their rising importance in global supply chains (Akinbode & Oladele, 2022). Future research could explore how Nigerian SMEs can incorporate these dimensions to enhance resilience and long-term performance.

### **2.7.2 Technology adoption and Organisational performance**

Technology adoption plays a pivotal role in enhancing organisational performance, particularly within Small and Medium Enterprises (SMEs), which often operate in highly competitive and resource-constrained environments like Nigeria. The integration of digital technologies such as Enterprise Resource Planning (ERP), Customer Relationship Management (CRM) systems, mobile applications, and automation tools enables firms to streamline operations, improve productivity, reduce costs, and respond swiftly to market demands (Oladejo & Akinbode, 2021). By facilitating better communication, data management, and process automation, technology adoption directly contributes to improved operational efficiency and customer satisfaction, which are critical dimensions of organisational performance (Ezenwoke, 2022).

Empirical evidence from Nigeria supports this positive association. For instance, Ogunnaike, Olatunji, and Akinbode (2021) found that SMEs leveraging digital tools experienced significant improvements in sales growth and inventory turnover due to enhanced decision-making and real-time data analytics. Similarly, Oladele and Akinbode (2020) demonstrated that Nigerian manufacturing SMEs adopting modern technologies such as ICT-based supply chain management systems reported increased productivity and profitability. These technologies allow firms to reduce errors, minimize delays, and optimize resource allocation, which cumulatively boost firm performance. Furthermore, technology adoption enhances SMEs' capability to innovate and adapt to changing environments. The digital transformation facilitates new product development, market expansion, and enhanced customer engagement, all of which positively

influence organisational growth (Ezenwoke, 2022). However, despite these benefits, the pace of technology adoption in Nigerian SMEs remains uneven due to challenges such as limited financial resources, lack of technical skills, poor infrastructure, and resistance to change (Adeoye & Elegunde, 2019).

Despite the acknowledged benefits, significant research gaps persist in understanding the relationship between technology adoption and organisational performance in the Nigerian SME context. First, there is a scarcity of longitudinal studies that examine how sustained technology adoption impacts organisational performance over time. Most existing research relies on cross-sectional designs, limiting insights into causal relationships and long-term outcomes (Oladejo & Akinbode, 2021). Second, the role of contextual factors such as infrastructure quality, government policies, and cultural attitudes toward technology adoption remains underexplored. While infrastructure deficits like unreliable electricity and poor internet connectivity are frequently mentioned barriers, few studies systematically analyze how these factors moderate the effectiveness of technology adoption on performance (Ezenwoke, 2022).

Third, there is limited research focusing on the adoption of emerging technologies such as artificial intelligence, blockchain, and big data analytics among Nigerian SMEs and their specific impacts on organisational capabilities and competitive advantage. Current literature primarily emphasizes basic ICT tools, overlooking advanced digital innovations (Ogunnaike et al., 2021). Finally, the intersection between technology adoption and human capital development within SMEs is inadequately addressed. Understanding how training, skills development, and change management influence the successful integration of technology could provide valuable insights for policymakers and business support organizations (Adeoye & Elegunde, 2019).

### **2.7.3 Integrated supply chain management practices and organisational performance**

Integrated Supply Chain Management (ISCM) refers to the coordinated and seamless management of all supply chain activities from procurement, production, inventory, to distribution across multiple internal departments and external partners. The goal of ISCM is to achieve end-to-end visibility, optimize resources, reduce costs, and improve customer satisfaction (Christopher, 2016). In the context of Small and Medium Enterprises (SMEs), especially in Nigeria, the adoption of ISCM practices can significantly enhance organisational performance by fostering collaboration, reducing inefficiencies, and improving responsiveness to market changes (Oladele & Akinbode, 2020).

Studies within Nigeria have demonstrated a positive correlation between ISCM practices and various performance indicators such as operational efficiency, financial outcomes, and market competitiveness. For instance, Adeoye and Elegunde (2019) found that Nigerian SMEs that adopted integrated supply chain processes such as synchronized procurement and production planning, real-time information sharing, and collaborative logistics achieved better inventory management and reduced lead times, resulting in improved profitability. Similarly, Oladoye and Akinlo (2023) highlighted that integration of supplier relationships and internal functions leads to smoother operations and higher customer satisfaction among manufacturing SMEs in Lagos.

ISCM enables firms to leverage technology for data sharing, joint problem-solving, and coordinated decision-making, thereby reducing redundancies and enabling quicker response to disruptions (Ogunnaike, Olatunji, & Akinbode, 2021). In Nigerian SMEs, the integration of supply chain activities across functions and partners enhances visibility and control over resources, which translates to better risk management and sustainable performance (Ezenwoke, 2022). However, challenges such as infrastructural inadequacies, financial constraints, and limited managerial capabilities often hamper the full realization of ISCM benefits in Nigeria.

Despite growing evidence of the benefits of ISCM, there remain important research gaps particularly in the Nigerian SME context. First, much of the existing research is fragmented and examines individual supply chain components rather than examining holistic integration of the supply chain network (Adeoye & Elegunde, 2019). A systems approach that captures the interconnectedness of internal and external functions is needed.

Second, the impact of contextual and infrastructural challenges specific to Nigeria such as poor ICT infrastructure, inconsistent power supply, and regulatory bottlenecks on the effectiveness of ISCM practices has not been adequately explored (Oladele & Akinbode, 2020). These factors may significantly moderate the relationship between ISCM and organisational performance. Third, limited empirical studies investigate the role of human factors, such as leadership commitment, inter-organizational trust, and collaboration culture, in fostering effective ISCM among Nigerian SMEs (Ogunnaike *et al.*, 2021). These socio-organizational elements are crucial for integration success but are often overlooked.

## 2.8 Conceptual Framework

In line with the theoretical review above and hypothesis development, study proposed a conceptual framework as depicted in Figure 1. The purpose of the framework is to examine the extent of the relationship between supply chain practices and organisational performance. The diagram provides adequate assumption on the dimensions of supply chain practices and organisational performance. The relationship between all the variables is shown below in the

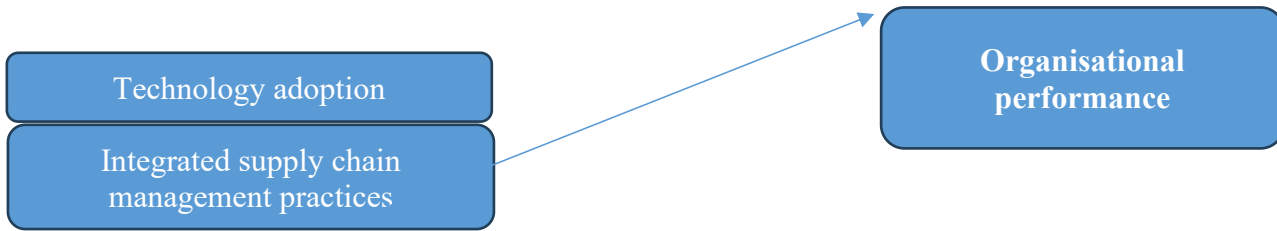
Figure:

**Figure 1: Conceptual Framework (Source: Self-Developed, 2025)**

**Independent Variable**

Supply chain practices

**Dependent Variable**



## 2.9 Theoretical foundation

### Resource-Based View (RBV)

The Resource-Based View (RBV), initially popularized by Barney (1991), posits that an organisation's competitive advantage and superior performance stem from its possession of valuable, rare, inimitable, and non-substitutable (VRIN) resources and capabilities (Barney, 1991). These resources can be physical (machinery, infrastructure), human (skills, leadership competence), technological (ICT, automation), organisational (processes, culture), or relational (supplier relationships, customer networks). According to RBV, it is not merely having resources but how they are orchestrated, configured, and leveraged over time that produces sustained performance improvements (Barney, 1991; Al-Shboul, *et al.*, 2017). Within supply chain management (SCM), RBV suggests that firms with better internal resources (e.g., good managerial skills, strong technology adoption, efficient internal processes) will be better placed to execute supply chain practices well like procurement, logistics, information sharing—and thus will achieve higher organisational performance. RBV also aligns with capabilities theory: organisations that build and nurture internal supply chain capabilities (e.g., supplier relationship management, inventory control) will outperform those that do not.

SMEs in Benin City often face resource constraints financial, technological, and human resources which significantly impact their ability to implement effective supply chain management (SCM) practices (Oladele & Akinbode, 2020). The Resource-Based View (RBV)

offers a useful framework to assess which internal resources and capabilities matter most in enabling effective supply chain practices and performance (Wernerfelt, 1984). For example, in Nigeria, studies have shown that firms possessing certain internal capabilities such as skilled leadership and ICT capability significantly outperform peers in supply chain tasks (Oladoye & Akinlo, 2023).

RBV helps to explain heterogeneity in SCM practice adoption and how differences in resource endowment led to performance variations among SMEs (Barney, 1991). Some SMEs may lack sufficient capital, technology, or managerial competence to adopt and sustain advanced SCM practices, placing them at a competitive disadvantage (Ogunnaike, Olatunji, & Akinbode, 2021). RBV allows researchers and practitioners to examine which resources are Valuable, Rare, Inimitable, and Non-substitutable (VRIN) in the local context, emphasizing not just short-term efficiency but long-term sustainable competitive advantage. This is particularly crucial for SMEs, as they require performance improvements that are durable rather than fleeting. Employing the RBV framework enables a deeper exploration of how SCM practices contribute to sustained organizational performance. Some Nigerian SME and SCM studies already use or implicitly adopt RBV logic. For instance, research on technology adoption and SCM often considers internal factors like ICT infrastructure and managerial capability as predictive of performance outcomes (Oladele & Akinbode, 2020; Ogunnaike et al., 2021). Therefore, RBV is well suited as a foundation for investigating how supply chain practices rooted in internal resource availability affect organizational performance in SMEs in Benin City.

### **Transaction Cost Economics (TCE)**

Transaction Cost Economics (TCE), largely developed by Ronald Coase (1937) and later Oliver Williamson, concerns the costs incurred when making economic exchanges, especially the costs

of searching for suppliers, negotiating contracts, monitoring performance, resolving disputes, and dealing with uncertainty and opportunism (Williamson, 1979; Coase, 1937). Key constructs in TCE include asset specificity, uncertainty, frequency of transactions, and governance structures (i.e., whether transactions are done in-house, through vertical integration, or market contracts) (Williamson, 1985; Grover & Malhotra, 2015). Applied to supply chains, TCE suggests that SMEs will select supply chain practices and governance modes that minimise transaction costs. For instance, they may prefer long-term supplier relationships or formal contracts when suppliers are specialized (asset specificity high) or when uncertainty is large.

Conversely, in low-uncertainty and low-asset-specificity settings, more transient, market-based supply arrangements may suffice (Williamson, 1985). Transaction Cost Economics (TCE) provides a lens to understand procurement decisions, such as outsourcing versus insourcing, supplier selection, contract design, and investments in monitoring or quality control (Grover & Malhotra, 2003). Many supply chain practices involve activities like procurement, contracting, evaluating, and monitoring suppliers' functions where transaction costs can be significant. TCE helps explain how SMEs manage these relationships to reduce costs associated with opportunism, uncertainty, and information asymmetry (Rindfleisch & Heide, 1997). In the Benin City context, for instance, the costs associated with searching for suppliers, negotiating deals, and enforcing contracts may be elevated due to weak market institutions and the prevalence of informal business practices (Akinyemi & Adegbite, 2021).

SMEs often have to decide whether to outsource certain functions such as transportation, warehousing, or IT or handle them internally. TCE provides criteria (asset specificity, uncertainty, frequency) that help predict these decisions and their performance outcomes (Williamson, 1991). Nigerian SMEs are known to suffer high transaction costs due to factors like

poor infrastructure, weak legal systems, and unreliable communication networks (Eze *et al.*, 2020). TCE allows analysts to model how supply chain practices that reduce or adapt to these costs such as formal supplier agreements or localized sourcing can enhance performance. While fewer in number, some research in Nigeria and broader African contexts has explored transaction cost aspects in supply chain management. For example, the trade-off between outsourcing and in-house logistics in Nigerian firms is often shaped by governance costs, environmental uncertainty, and asset specificity (Akinyemi & Adegbite, 2021). Using TCE enables formulation of testable hypotheses regarding which supply chain practices reduce transaction costs and, consequently, improve organizational performance.

## **2.10 Empirical Review**

Omigie and Gabriel (2022) did a study on Supply Chain Management and Performance: Evidence from Manufacturing Organisations in Nigeria. The study's objective was to examine how SCM practices such as procurement outsourcing, information flow management, and order process management influence performance in quoted manufacturing organisations in Edo State. Using a survey questionnaire given to staff in production, procurement, warehouse, logistics and marketing departments of two quoted manufacturing firms, analysis was by means of means, standard deviations, correlation and regression. The findings indicated that all three SCM practices had a positive and statistically significant relationship with firm performance. The conclusion is that manufacturing organisations should focus on their core competencies and outsource non-core functions, and improve information flows and order processing. The recommends that firms concentrate on what they do best, identify functions better done by external parties, invest in information flow systems, and improve order process management.

Olajumoke Adekunle, Abdulmalik Abubakar Yusuf and Halima Shuaibu (2022) did a study on effects of supply chain management on the performance of some selected SMEs in Lagos state. Their goal was to investigate the impact of SCM practices, particularly quality of information and strategic supplier partnership, on performance of SMEs in Lagos. They used a primary data approach via structured questionnaire to 112 SME owners or managers; regression analysis tested hypotheses. They found that both quality of information and strategic supplier partnership have positive and significant effects on SME performance in Nigeria. The conclusion is that SCM practices matter for SMEs and that some practices are particularly potent. They recommended that SME managers use technology to improve information quality, build strong supplier relationships, leverage supply chain networks, and pay attention to using SCM practices consistently.

Abubakar Ado Adamu, Ladan Sahnun and Aliyu Audu Gemu (2025) investigated a study on Supply Chain Management Practices and Performance of Firms in Nigeria. This study aimed to examine how inventory management practices (IMP), logistics management practices (LMP), procurement practices (PP), and supplier relationship practices (SRP) affect firm performance in Abuja. Data from 334 respondents across procurement and production departments of 62 firms were collected; regression analysis was used. Findings were that IMP, LMP, and SRP have significant positive effects on firm performance; procurement practices showed a positive association though somewhat weaker. The conclusion emphasises that certain SCM practices are strategic for improving operational efficiency, customer satisfaction, and competitiveness. Recommendations include emphasising strong inventory and logistics management, improving supplier relationships, and refining procurement processes.

Keyna and Ololo (2024) did a study on the effect of Supply Chain Management on Performance of Small and Medium Scale Enterprises' in Bwari Area Council of Abuja. This study investigated how supply chain management techniques affected Nigerian Small and Medium sized Enterprises' (SMEs') financial performance in Bwari Area Council of Abuja. Primary data from a sample of 164 respondents were used by the researcher and the research design of the study was survey design because questionnaire administration was used to collect primary data from respondents. Regression technique of data analysis was employed to analyze the gathered data sets and the result shows that all the independent variables examined (information sharing, information quality and strategic supplier partnership had positive and significant effect on SMEs' financial performance of SMEs in Bwari Area Council of Abuja. Based on the findings of the study, it was recommended among others that in order to boost the financial performance of SMEs in Bwari Area Council of Abuja, the management of these SMEs should be making decisions based on sharing of information, quality of information, and strategic suppliers' partnership because they have been found to have significant relationship with financial performance of firms.

Ifekanandu, Nwaogaidu, Okolo, Okocha and Kingsley (2023) did a study on the impact of Supply Chain Management Practices on the Performance of Manufacturing Firms in Rivers State Nigeria. The objective is to examine how various SCM practices adopted in manufacturing firms in Rivers State affect organisational performance. They used survey design (questionnaires etc.), targeting management and technical staff of several paint and allied manufacturing firms; sample drawn from population ~1005 across firms; analyzed via regression and correlational methods. They found that SCM practices positively affect organisational performance, especially through strategic supplier relationships, mutual planning, and problem-solving between firms and their

suppliers. Conclusion: SCM practices are vital in enhancing performance in manufacturing firms in Rivers State. Recommendations: Managers should maintain strong supplier partnerships, mutual planning and problem solving, invest in improving SCM adoption, possibly via training, and improve relationships with suppliers for enhanced performance.

Ephrem Negash Shebeshe and Dhiraj Sharma (2024) did a study on sustainable supply chain management and organisational performance with focus on mediating role of competitive advantage in the Ethiopian manufacturing. The study examined how sustainable supply chain management (SSCM) practices affect competitive advantage and organisational performance. A quantitative causal and descriptive design were adopted using structural equation modelling (Smart-PLS). The study found out that SSCM practices have a significant positive impact on competitive advantage and organisational performance; competitive advantage mediates the effect and concluded that adoption of sustainable SCM contributes both directly and via competitive advantage to better outcomes. The study recommends that manufacturing firms should adopt sustainable supply chain practices, integrate environmental, social, economic sustainability in SCM, and policymakers should support sustainable approaches.

Gudda and Deya (2019) did a study on the effect of supply chain management practices on the performance of small and medium sized enterprises in Nairobi. Their aim was to assess the effects of SCM facets green supply chain management, supplier relationship management, information technology, and logistics management on performance of SMEs in Nairobi. Descriptive design was adopted using Likert-scale questionnaire analysed with descriptive and inferential statistics. The study found out that all SCM dimensions included had positive relationships with SME performance. Conclusion: embracing SCM practices improves SME

performance. The study recommends that when SMEs should adopt SCM practices, policymakers and practitioners should support with awareness and training to further research.

Belay, Shimelis Zewudie, Dereje Tefera and Wondesen Mekonnen (2023) did a study on the Effect of Supply Chain Management Practice on Organizational Performance on Ethio telecom, South West Region Jimma. The objective was to examine how SCM practices affect organisational performance at Ethio telecom in the Jimma region, Ethiopia. Methodology: stratified and simple random sampling, 235 respondents; Pearson correlations and multiple linear regressions. The study found out that all independent SCM practices considered had statistically significant positive effects on organisational performance, though their magnitude/order differed. The conclusion is based on the finding that SCM practices are strong predictors of performance, but implementation levels differ among practices. The suggests that organisations should prioritize SCM practices depending on their impact magnitude, invest in practices with highest return, improve SCM awareness and capacity.

## **2.11 Research Gap**

Even though there is a growing body of empirical literature addressing how supply chain management practices influence SME performance in Nigeria, several gaps remain that limit both theory and practice. First, much of the literature is cross-sectional (single time point) and based on self-reported survey responses. For example, the study supply chain management and the performance of small and medium scale enterprises in Nigeria by Chiyem & Etomi (2024) uses a survey of SME owners/managers to examine strategic supplier alliances, information sharing, and collaborative governance against performance (operational efficiency, customer satisfaction, profitability). While it finds positive relationships, the study cannot establish causality or address how these relationships evolve over time.

Secondly, there is insufficient attention to contextual moderating and mediating variables. Many studies (e.g., the Bwari Area Council study by Eshika & Ololo, 2024) show that information sharing, quality, and supplier partnership positively affect financial performance of SMEs, but do not deeply explore *which conditions* (size of SME, sector, infrastructural environment, regulatory environment, informality) strengthen or weaken these effects. Third, many studies focus on a limited set of SCM practices (supplier relationship, information sharing, governance) and leave out other possibly important practices such as risk management, sustainability (environmental/social), digital supply chain integration beyond ICT adoption, advanced analytics, real-time monitoring, etc. This is evident in qualitative investigations which identify barriers like human behaviour, lack of digital infrastructure, but do not quantify varied SCM practices across diverse industries.

Fourth, geographic and sectoral bias is another gap. Much research is concentrated in more accessible urban or semi-urban regions (Abuja, Lagos, etc.), manufacturing sector, and SMEs that are formally registered. Rural SMEs, SMEs in informal sectors, SMEs in harder-to-reach states or non-manufacturing sectors are under-represented. For example, the Bwari study is specific to Abuja FCT, leaving other contexts with different infrastructural and market challenges less studied. Fifth, measurement of performance often relies on subjective or financial measures alone (profitability, financial performance). There is less use of mixed measures including non-financial outcomes (customer satisfaction, flexibility, innovation, environmental compliance, social impact) or longer-term survival, growth, or competitive advantage. The studies often measure performance from current operations rather than growth trajectories or resilience.

Finally, there's limited application of theory beyond simple RBV or TCE; few studies deeply integrate multiple theoretical lenses (such as dynamic capabilities, institutional theory, network theory) to explain how resource constraints, institutional environments, or stakeholder networks shape adoption of SCM practices and performance outcomes. Also, research seldom addresses the implementation challenges in detail (how SMEs overcome constraints in technology, finance, culture, staff skills etc.), beyond listing them.

## **CHAPTER THREE**

### **METHODOLOGY**

#### **3.1 Introduction**

This chapter outlines the methods adopted for the study. It details the research design, population, sample size, sampling technique and the instruments employed in data collection. Furthermore, it discusses the validity and reliability of the research instruments, sources of data, and how variables were operationalized. The chapter also specifies the model used for analysis and describes the statistical and analytical methods applied to interpret the data.

#### **3.2 Research Design**

For the purpose of this study, cross sectional research design was adopted. The justification for this was based on the premise that cross-sectional provides opportunity for investigating different units of the population at a specific time. In line with, survey research design was adopted due its specific feature with cross-sectional design.

#### **3.3 Population of the study**

The population comprised of SMEs in Benin City. The justification for this population was driven by the desire to help SMEs understand their challenges and prospect in the environment and develop ways to remain more competitive in the market. The population was represented by the number of SMEs in Benin City. The figure was based Edo State Ministry of Business, Trade and Cooperatives Report was 259,410 as at December, 2024.

#### **3.4 Sample Size Determination and Sampling Technique**

The sample size for this this study was determined based on the above population figure with application of normal approximation with 5% margin error and 95% significance level. In order to achieve this, the formula is given below and based on the above, the sample size was 391.

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

Where, n = sample size; N = Population (259410); e =significance level (0.05%)

$$\frac{N}{1+N(e^2)} = \frac{259410}{1+ 259410 (0.05^2)} = 400$$

### **3.5 Research Instrument**

The major research instrument for this study was structured questionnaire that contain list of possible questions to address key issue supply chain and organisational performance. The questionnaire contains two major parts starting from cover letter that provide preamble for participants on specific information and their level of involvement in the study. The first part contains questions that measured demographic information while the second part cover questions on the independent and dependent variable.

### **3.6 Validity and reliability of the research instrument**

The validity of the research instrument defines most critical criterion and the degree to which research instrument measures what is expected and suppose to measure. In order to achieve this, the questionnaire was subjected to proper scrutiny and evaluation by the supervisors been experienced tutors in the field. The suggestions and comments the supervisors suggested were appropriately incorporated, thus enriching the quality of the instrument for the study. For the reliability, a pilot study in form of pre-test was conducted sampling 40 questionnaire to participants (who were not member of the sample for this study). The data collected were tested with a construct composite reliability co-efficient (Cronbach's alpha) value for each latent variable which are; current supply chain management practices (0.938), technology adoption (0.910), integrated supply chain management practices (0.845) and organisational performance

(0.949). This implies that all questions in the questionnaire positively correlates with the intended focus of the study.

### 3.7 Source of data

The study used primary of data since the study was quantitative in nature and it will be obtained through the research instrument (questionnaire). Primary source is the first and first-hand information that research obtains from participants. This was achieved through the distribution of questionnaire

### 3.8 Operationalisation of variable

S	Variables	Operational Definition	Measurement	Num	A priori
<b>Demographic Information</b>					
1	Gender of the Respondent	Gender of Participant	Two-point categorically scale	Q1	
2	Age of the Respondent	Age Distribution	Five-point categorically scale	Q2	
3	Educational Qualification	Occupation of the Respondent	Four-point interval scale.	Q3	
4	Years of Business experience	Years of Business experience	Four-point categorically scale.	Q4	
5	Sector of the Economy of your Business	Sector of the Economy of your Business	Five-point categorically scale.	Q5	
<b>Dependent and Independent Variable</b>					
6	Current supply chain management practices (CSUMP)	SCM encompasses activities like procurement, inventory management, logistics, supplier collaboration, and information sharing, all aimed at improving efficiency and reducing costs	Likert-type Five-point scale	Q6-Q10	+
7	Technology adoption (TEAD)	The integration of digital technologies such as Enterprise Resource Planning (ERP), Customer Relationship Management (CRM) systems, mobile applications, and automation tools.	Likert-type Five-point scale	Q11-Q15	+

S	Variables	Operational Definition	Measurement	Num	A priori
8	Integrated supply chain management practices (ISCMP)	Integrated Supply Chain Management (ISCM) refers to the coordinated and seamless management of all supply chain activities from procurement, production and inventory.	Likert-type Five-point scale	Q16-Q20	+
9	Organisational Performance (ORGPE)	Performance in SMEs is often assessed using both quantitative and qualitative indicators that capture the effectiveness and efficiency of operations.	Likert-type Five-point scale		

**Source:**

### 3.9 Model specification

The model for this study was stated to establish the relationship between supply chain management practices and organisational performance. The model is functionally stated as:

$$ORGPE = (SUPCHPR) \dots \dots \dots (3.1)$$

Where, CSUMP<sub>i</sub>, TEAD<sub>i</sub>, ISCMP<sub>i</sub>

$$PERSME = f(CSUMP, TEAD, ISCMP) \dots \dots \dots (3.2)$$

This model is further expressed mathematically as:

$$PERSME = \beta_0 + \beta_1 CSUMP_i + \beta_2 TEAD_i + \beta_3 ISCMP_i + e \dots \dots \dots (3.3)$$

Where: *ORGPE* = Organisational Performance

CSUMP<sub>i</sub> = Current supply chain management practices

TEAD<sub>i</sub> = Technology adoption

ISCMP<sub>i</sub> = Integrated supply chain management practices

e = error term

β<sub>0</sub> = Constant

β<sub>1</sub>... β<sub>4</sub> = Coefficients of the independent variables

**Apriori Expectations:** With this, it is expected that all the dimension of supply chain practices has positive and significant relationship with organisational performance and the apriori expectations are stated below:

$$\beta_1 > 0; \beta_2 > 0; \text{ and } \beta_3 > 0 \dots\dots\dots(3.4)$$

The above signifying that:

If  $\beta_1 > 0$ , then a unit increase in current supply chain management practices will improve organisational performance.

If  $\beta_2 > 0$ , then a unit increase in technology adoption will improve organisational performance.

If  $\beta_3 > 0$ , then a unit increase in Integrated supply chain management practices will improve organisational performance.

### **3.10 Method of Data analysis**

The method of data analysis will be analysed with both descriptive and inferential statistics. The descriptive statistics will use frequency count, mean and standard deviation while the inferential statistics will use correlation and multiple analysis using Ordinary Least Square (OLS) method as the estimation technique. Statistical programs for social sciences (SPSS) version 24 were used to ultimately perform all tests of significance at the 5% level of significance.

## CHAPTER FOUR

### DATA ANALYSIS AND INTERPRETATION

#### 4.1 Introduction

This chapter focused on the analysis of the data collected through the use of questionnaire administered to SME in Benin City. The analyses were carried out on demographic information, dependent and independent variable. The presentation of result also focused on Pearson correlation coefficients and multiple regression analysis.

#### 4.2 Analysis of Respondents' Demographic Data

This section contains the analysis of the bio data of the respondents which include gender, age of respondents, educational qualification, years of work experience, number of employee, income level and sector of the economy of your business. The analysis was based on 342 questionnaire retrieved out of 400 expected as the sample size. This represented 86.5% response rate upon which the analyses were based.

**Table 4.1: Respondents' demographic profiles**

S/N	Demographics	Category	Frequency	Percent	Cumulative Percent
1	Gender of the respondent	Male	102	29.8	29.8
		Female	240	70.2	100.0
		<b>Total</b>	<b>342</b>	<b>100.0</b>	
2	Age of the Respondent	18–25	32	9.40	9.40
		26–35	178	52.0	61.4
		36–45	57	16.7	78.1
		46 and above	75	21.9	100.0
		<b>Total</b>	<b>342</b>	<b>100.0</b>	
3	Educational Qualification	SSCE/GCE	101	29.5	29.5
		NCE/Diploma/OND or Equivalent	118	34.5	64
		HND/B.Sc. or Equivalent	78	22.8	86.8
		Postgraduate	45	13.2	100.0
		<b>Total</b>	<b>342</b>	<b>100.0</b>	

S/N	Demographics	Category	Frequency	Percent	Cumulative Percent
4	<b>Years of Experience</b>	less than 1	43	12.6	12.6
		1–3 Years	145	42.4	55
		4–6 Years	82	24.0	79
		7 Years and above	74	21.0	100.0
		<b>Total</b>	<b>342</b>	<b>100.0</b>	
5	<b>Sector of the Economy of your Business</b>	Wholesale/Retail trade	12	3.56	3.56
		Real estate	18	5.26	8.82
		Education	29	8.48	17.3
		Manufacturing	78	22.8	40.1
		Accommodation and food service	85	24.9	65
		Healthcare	120	35	100.0
		<b>342</b>	<b>342</b>	<b>100.0</b>	

**Source: Researcher Fieldwork (2025)**

### Analysis

**Gender of the respondent:** The data obtained above indicates male respondents are 102 with 29.8% while the female participants are 240 are 70.2%. This implies that female respondent's response to the questionnaire more than the male participants.

**Age of Respondents:** The largest age group is 26–35 years (52%), followed by 46 years and above (21.9%). Younger respondents aged 18–25 years make up only 9.4%. This suggests that the respondents are predominantly young to middle-aged adults, with most in their prime working years.

**Educational Qualification:** The majority of respondents hold NCE/Diploma/OND (34.5%) or SSCE/GCE (29.5%). 22.8% have a B.Sc./HND, while 13.2% possess postgraduate qualifications. This implies a moderately educated sample, with a significant portion having tertiary education.

**Years of Experience:** 1–3 years of experience is the most common category (42.4%). 24% have 4–6 years and 21% have 8 years or more while 12.6% have less than a year. The distribution

indicates that most respondents have limited to moderate work experience, suggesting a relatively young or emerging workforce.

**Sector of the Economy:** Respondents are primarily from the healthcare sector (35%), followed by accommodation and food service (24.9%) and manufacturing (22.8%). Other sectors such as education (8.48%), real estate (5.26%), and wholesale/retail trade (3.56%) are less represented. This shows strong participation from service-oriented and production industries, especially healthcare.

### 4.3 Descriptive statistics of supply chain practices and organisational performance

This section provides information on using frequency count, percentages, mean and standard deviation with focus on independent (supply chain practices) and dependent variable (organisational performance). Scale: SA = Strongly Agree, A = Agree, N = Neutral, D = Disagree, SD = Strongly Disagree. The results are presented in Tables below:

#### 4.3.1 Descriptive statistics on current supply chain management practices

The table below shows the mean and standard deviation responses of the items used to measure current supply chain management practices.

S/N	Items	SA	A	N	D	SD	Mean	Std Dev
1	Our organization maintains strong relationships with suppliers to ensure consistent quality and timely delivery.	150 (43.9%)	120 (35.1%)	40 (11.7%)	20 (5.8%)	12 (3.5%)	4.10	0.88
2	Technology and data analytics are effectively used to monitor and optimize our supply chain operations.	160 (46.8%)	110 (32.2%)	35 (10.2%)	22 (6.4%)	15 (4.4%)	4.10	0.91
3	The company's supply chain practices are flexible enough to respond quickly to market or demand changes.	120 (35.1%)	130 (38.0%)	40 (11.7%)	30 (8.8%)	22 (6.4%)	3.87	1.03

S/N	Items	SA	A	N	D	SD	Mean	Std Dev
4	Sustainability and environmental considerations are integrated into our supply chain decisions.	180 (52.6%)	105 (30.7%)	30 (8.8%)	15 (4.4%)	12 (3.5%)	4.25	0.86
5	Communication and coordination among suppliers, manufacturers, and distributors are efficient and effective.	200 (58.5%)	100 (29.2%)	25 (7.3%)	10 (2.9%)	7 (2.1%)	4.56	0.98
<b>Overall mean &amp; Standard Deviation</b>							<b>4.45</b>	<b>0.41</b>

**Source: Researcher fieldwork from SPSS Output (2025) \*Highly considered (Mean  $\geq$  3)**

The results indicate a generally strong performance in the organization's supply chain management practices. All items recorded mean scores above 3.00, suggesting a high level of agreement among respondents that these practices are effectively implemented. The highest mean score (Mean = 4.56, SD = 0.98) was observed for communication and coordination among suppliers, manufacturers, and distributors, indicating that information flow and collaboration are highly efficient. Sustainability integration also scored highly (Mean = 4.25), showing that environmental considerations are well incorporated into supply chain decisions. Both supplier relationships and use of technology and data analytics achieved a mean of 4.10, reflecting consistent quality control, timely delivery, and data-driven optimization efforts. The lowest mean (3.87) was recorded for supply chain flexibility, suggesting that while the organization adapts reasonably well to market or demand changes, there is still room for improvement in responsiveness and agility. The overall mean of 4.45 with a standard deviation of 0.41 demonstrates a high and consistent positive perception of the organization's supply chain management effectiveness among respondents.

### 4.3.2 Descriptive statistics on technology adoption

The table below shows the mean and standard deviation responses of the items used to measure technology adoption as measure of supply chain practices.

S/N	Items	SA	A	N	D	SD	Mean	Std Dev
1	Our organization actively adopts new technologies to improve supply chain efficiency and performance.	175 (51.2%)	110 (32.2%)	30 (8.8%)	15 (4.4%)	12 (3.5%)	4.23	0.89
2	The use of digital tools (e.g., IoT, AI, blockchain) has enhanced transparency and traceability in our supply chain operations.	160 (46.8%)	125 (36.5%)	30 (8.8%)	15 (4.4%)	12 (3.5%)	4.19	0.87
3	Employees in our supply chain are adequately trained to use newly implemented technologies effectively.	130 (38.0%)	120 (35.1%)	40 (11.7%)	30 (8.8%)	22 (6.4%)	3.89	1.02
4	The adoption of advanced technologies has reduced operational costs and improved overall productivity in our supply chain.	180 (52.6%)	110 (32.2%)	25 (7.3%)	15 (4.4%)	12 (3.5%)	4.26	0.84
5	Our management strongly supports investment in innovative technologies to maintain a competitive	190 (55.6%)	105 (30.7%)	25 (7.3%)	12 (3.5%)	10 (2.9%)	4.33	0.81
<b>Overall mean &amp; Standard Deviation</b>							<b>4.18</b>	<b>0.89</b>

**Source: Researcher fieldwork from SPSS output (2025) \* highly considered (Mean  $\geq$  3)**

The data presented above reveals respondents' perceptions of their organization's adoption and use of technology in supply chain management. The overall mean score of 4.18 (SD = 0.89) indicates a high level of agreement among participants, suggesting that technology adoption is strongly practiced and valued within their supply chain operations. Our management strongly supports investment in innovative technologies to maintain a competitive advantage recorded the highest mean (4.33, SD = 0.81). This implies strong managerial commitment toward technology-driven competitiveness, reflecting an organizational culture that prioritizes innovation. The

adoption of advanced technologies has reduced operational costs and improved overall productivity followed closely with a mean of 4.26, suggesting respondents perceive tangible benefits such as cost reduction and productivity gains from adopting advanced technologies. Our organization actively adopts new technologies also recorded a high mean of 4.23, reinforcing that organizations are proactive in integrating technology for efficiency improvements. Use of digital tools enhances transparency and traceability achieved a mean of 4.19, showing that technological integration has positively influenced visibility and accountability within the supply chain. Employees are adequately trained recorded the lowest mean (3.89, SD = 1.02). Although still above the threshold of 3, this suggests moderate agreement and indicates that employee training and capacity-building could be an area needing improvement to maximize technology adoption benefits. Overall, the findings suggest that organizations are largely embracing technological advancements in their supply chain practices, supported by management commitment and evident performance benefits. However, continuous investment in training and skill development remains essential to sustain and optimize these technological initiatives.

#### **4.3.3 Descriptive statistics of integrated supply chain management practices**

The table below shows the mean and standard deviation responses of the items used to measure integrated supply chain management practices

	Items	SA	A	N	D	SD	Mean	Std Dev
1	Our organization maintains close coordination and information sharing with suppliers and customers to achieve supply chain integration.	185 (54.1%)	110 (32.2%)	25 (7.3%)	12 (3.5%)	10 (2.9%)	4.31	0.84
2	Different departments within our organization work collaboratively to support seamless supply chain operations.	160 (46.8%)	120 (35.1%)	35 (10.2%)	15 (4.4%)	12 (3.5%)	4.17	0.89
3	Integrated supply chain management practices have improved our ability to respond quickly to changes in customer demand.	175 (51.2%)	115 (33.6%)	30 (8.8%)	12 (3.5%)	10 (2.9%)	4.26	0.86
4	The use of integrated information systems has enhanced communication and decision-making across our supply chain.	180 (52.6%)	115 (33.6%)	25 (7.3%)	12 (3.5%)	10 (2.9%)	4.29	0.83
5	Our organization's long-term strategy emphasizes building strategic partnerships to strengthen supply chain integration and performance.	140 (40.9%)	120 (35.1%)	40 (11.7%)	25 (7.3%)	17 (5.0%)	3.99	0.96
<b>Overall mean &amp; Standard Deviation</b>								

**Source: Researcher Fieldwork from SPSS Output (2025) \*Highly considered (Mean  $\geq$  3)**

The results reflect respondents' perceptions of the extent to which integrated supply chain management practices are implemented within their organizations. The mean scores across all items are above 3.0, indicating a high level of agreement that ISCM practices are actively embraced. The overall mean value (approx. 4.20, based on item averages) and a relatively low standard deviation (around 0.88) suggest consistent positive responses among participants. Our organization maintains close coordination and information sharing with suppliers and customers recorded the highest mean score (4.31, SD = 0.84). This shows that most respondents agree that

strong coordination and information sharing are central to their supply chain integration efforts. The use of integrated information systems has enhanced communication and decision-making also scored highly (Mean = 4.29, SD = 0.83), emphasizing the importance of technology and data systems in facilitating effective integration and decision-making. Integrated supply chain management practices have improved our ability to respond quickly to changes in customer demand recorded a mean of 4.26, highlighting that ISCM enhances responsiveness and agility key outcomes of integration. Different departments work collaboratively had a mean of 4.17, suggesting effective internal coordination across functions, although slightly lower than external integration scores. Our organization's long-term strategy emphasizes building strategic partnerships recorded the lowest mean (3.99, SD = 0.96). While still above the acceptance level, this indicates that strategic partnership development is somewhat less emphasized compared to operational and technological integration aspects. Overall, the findings suggest that organizations are performing strongly in implementing integrated supply chain management practices, particularly in areas of information sharing, inter-departmental collaboration, and technology-driven communication. However, long-term strategic partnerships appear to be a relatively weaker area that could benefit from enhanced focus to sustain comprehensive supply chain integration.

#### **4.4 Regression Analysis Results**

Regression analysis model was estimated to establish the relationship between the supply chain practices and organisational performance. The results are shown in Tables

**Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0.781	0.610	0.605	0.427	2.042

a. Predictors: (Constant), *CSUMPi*, *TEAD<sub>i</sub>*, *ISCMP<sub>i</sub>*

b. Dependent Variable: *ORGPE*

The regression model shows an R value of 0.781, indicating a strong positive relationship between the independent variables technology adoption (*TEAD<sub>i</sub>*), integrated supply chain management practices (*ISCMP<sub>i</sub>*), and Customer/Supplier Management Practices (*CSUMPi*) and the dependent variable, organizational performance (*ORGPE*). The R Square value of 0.610 implies that approximately 61% of the variation in organizational performance can be explained by the combined effect of the three predictors. This suggests that these supply chain practices significantly influence organizational performance. The Adjusted R Square of 0.605 indicates that even after adjusting for the number of predictors, the model remains a good fit, confirming its robustness and reliability.

**ANOVA<sup>a</sup> results**

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	68.451	4	17.113	93.65	0.000 <sup>b</sup>
Residual	43.762	337	0.130		
Total	112.213	341			

a. Dependent Variable: *ORGPE*

b. Predictors: (Constant), *CSUMPi*, *TEAD<sub>i</sub>*, *ISCMP<sub>i</sub>*

**Dependent Variable: *ORGPE***

The ANOVA table assesses the overall significance of the regression model. The results show that the regression sum of squares (68.451) is much larger than the residual sum of squares (43.762), indicating that a substantial proportion of the variation in the dependent variable (organizational performance- *ORGPE*) is explained by the independent variables customer/supplier management practices (*CSUMPi*), technology adoption (*TEADi*), and Integrated Supply Chain Management Practices (*ISCMPI*). The F-statistic value of 93.65 with a significance level (Sig.) of 0.000 indicates that the model is statistically significant at the 0.05 level. This means that, collectively, the predictors have a strong and significant effect on organizational performance. In simpler terms, the very low p-value ( $p < 0.001$ ) confirms that the regression model fits the data well, and the independent variables jointly contribute significantly to predicting organizational performance.

**Coefficients<sup>a</sup>**

Independent Variables	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	0.842	0.112	-	7.52	0.000
<i>CSUMPi</i>	0.211	0.054	0.204	3.91	0.000
<i>TEADi</i>	0.235	0.049	0.226	4.80	0.000
<i>ISCMPI</i>	0.278	0.051	0.271	5.45	0.000

The regression results show that all three independent variables: *CSUMPi*, *TEADi*, and *ISCMPI* have positive and statistically significant effects on the dependent variable ( $p < 0.001$  for all). Among them, *ISCMPI* has the strongest standardized coefficient ( $\beta = 0.271$ ), indicating it contributes the most to predicting the dependent variable. *TEADi* ( $\beta = 0.226$ ) and *CSUMPi* ( $\beta = 0.204$ ) also have meaningful positive impacts. The constant value of 0.842 suggests that when all predictors are zero, the dependent variable has a baseline value of 0.842. Overall, the model indicates that increases in any of the three predictors are associated with significant increases in the outcome variable.

#### **4.5 Test of Research Hypotheses**

The results from the Table were used to test hypotheses in the following ways:

***H<sub>01</sub>: Current supply chain management practices and organisational performance do not have significant relationship***

From the result from the Table, it shows that there is a positive and significant relationship between current supply chain management practices and organisational performance. Based on the result, the null hypothesis is rejected. It is therefore concluded that the current supply chain management practices has a significant relationship with organisational performance.

***H<sub>02</sub>: Technology adoption and organisational performance do not have significant relationship.***

From the result from the Table, it shows that there is a positive and significant relationship between technology adoption and organisational performance. Based on the result, the null hypothesis is rejected. It is therefore concluded that the technology adoption has a significant relationship with organisational performance.

***H<sub>03</sub>: Integrated supply chain management practices across procurement, inventory, and logistics and organisational performance does not have significant relationship.***

From the result from the Table, it shows that there is a positive and significant relationship between integrated supply chain management practices and organisational performance. Based on the result, the null hypothesis is rejected. It is therefore concluded that the integrated supply chain management practices has a significant relationship with organisational performance.

#### **4.6 Discussion of Findings**

The regression analysis results reveal a strong and statistically significant relationship between supply chain practices specifically customer/supplier management practices (CSUMPi),

technology adoption (TEADi), and integrated supply chain management practices (ISCMPI) and organizational performance (ORGPE). The model yielded an R value of 0.781, indicating a strong positive association between these variables. The R<sup>2</sup> value of 0.610 further shows that approximately 61% of the variation in organizational performance is explained by the combined effect of the three predictors, which suggests that these dimensions of supply chain management play a critical role in enhancing organizational outcomes. These findings align with previous studies that have highlighted the importance of supply chain management practices in driving organizational success. For instance, Li et al. (2006) found that effective supply chain practices significantly contribute to improved operational and financial performance by promoting coordination and information sharing across the supply chain network. Similarly, Sukati et al. (2012) reported that customer and supplier relationship management positively influences performance outcomes through better collaboration and responsiveness. The present study's findings on the significant effect of CSUMPI ( $\beta = 0.204, p < 0.001$ ) corroborate these earlier results, reinforcing the view that fostering strong relationships with supply chain partners enhances efficiency, trust, and competitive advantage. Technology adoption (TEADi) also emerged as a significant predictor ( $\beta = 0.226, p < 0.001$ ) of organizational performance, emphasizing the growing role of digital tools and innovation in modern supply chain systems. This result supports the conclusions of Gunasekaran and Ngai (2012) and Chong et al. (2011), who observed that the integration of advanced technologies such as enterprise resource planning (ERP), automation, and data analytics facilitates real-time decision-making and agility, leading to superior organizational outcomes. The positive influence of technology adoption in this study suggests that firms that embrace digital transformation are better positioned to enhance efficiency, reduce costs, and improve customer satisfaction. Among the predictors, integrated

supply chain management practices (ISCMPI) demonstrated the highest standardized coefficient ( $\beta = 0.271, p < 0.001$ ), implying that integration across procurement, inventory, and logistics functions exerts the strongest impact on performance. This finding is consistent with Flynn, Huo, and Zhao (2010), who found that internal and external supply chain integration significantly improves firm performance by reducing redundancy and improving information flow. Likewise, Zailani and Rajagopal (2005) emphasized that integrated practices enable better coordination and synchronization of supply chain activities, which directly enhances organizational competitiveness. The overall model significance ( $F = 93.65, p < 0.001$ ) indicates that the predictors jointly have a substantial impact on performance, echoing results from Adenike and Adebayo (2020), who found that combined supply chain strategies when well implemented account for a large proportion of variance in organizational performance across manufacturing firms. The Durbin-Watson statistic (2.042) also suggests the absence of autocorrelation, further validating the model's reliability and robustness. In summary, the results of this study reinforce the centrality of integrated supply chain practices, technology adoption, and customer/supplier relationship management as key drivers of organizational performance. These findings not only align with previous empirical evidence but also underscore the need for organizations to adopt a holistic and technology-driven approach to supply chain management. Firms that integrate their supply chain functions while leveraging technology and maintaining strong stakeholder relationships are more likely to achieve sustainable competitive performance in today's dynamic business environment.

## CHAPTER FIVE

### SUMMARY OF FINDINGS AND CONCLUSION

#### 5.1 Introduction

This section presents a concise summary of the key findings derived from the analysis of the relationship between supply chain practices specifically customer/supplier management practices (CSUMPi), technology adoption (TEADi), and integrated supply chain management practices (ISCMPI) and organizational performance (ORGPE). The regression results demonstrated a strong and positive relationship between these variables, confirming their significant contribution to organizational success. The analysis further revealed that integrated supply chain management practices exerted the most substantial effect on performance, followed by technology adoption and customer/supplier management practices. Overall, the findings affirm that effective supply chain management is a crucial determinant of organizational efficiency, competitiveness, and long-term growth.

#### 5.2 Summary of Findings

- The study examined the relationship between supply chain practices specifically customer/supplier management practices (CSUMPi), technology adoption (TEADi), and integrated supply chain management practices (ISCMPI) and organizational performance (ORGPE). The regression analysis produced an R value of 0.781, indicating a strong positive association between the independent variables and organizational performance. The R<sup>2</sup> value of 0.610 revealed that about 61% of the variation in organizational performance is explained by the combined effects of the three supply chain practices, signifying that these factors are major determinants of firm performance.

- The ANOVA results further confirmed that the model is statistically significant ( $F = 93.65, p < 0.001$ ), suggesting that the predictors collectively have a substantial effect on organizational performance. The Durbin-Watson value of 2.042 indicated the absence of autocorrelation, demonstrating that the model is both stable and reliable.
- Analysis of the coefficients showed that all three predictors (CSUMPi, TEADi, and ISCMP) had positive and statistically significant impacts on organizational performance ( $p < 0.001$  for all). Among them, integrated supply chain management practices ( $\beta = 0.271$ ) contributed the most to organizational performance, followed by technology adoption ( $\beta = 0.226$ ) and customer/supplier management practices ( $\beta = 0.204$ ). This indicates that improvements in any of these areas are likely to result in significant gains in organizational performance.
- The hypothesis tests confirmed that each of the three supply chain practices has a significant relationship with organizational performance. Consequently, all null hypotheses were rejected. These findings demonstrate that effective integration of supply chain functions, adoption of technology, and strong customer/supplier relationship management collectively enhance an organization's efficiency, responsiveness, and competitiveness.
- Overall, the results affirm that supply chain management practices are crucial drivers of organizational performance. Firms that adopt integrated supply chain strategies, embrace technological innovations, and maintain effective relationships with suppliers and customers are more likely to achieve superior operational and strategic outcomes.

### **5.3 Contributions to Knowledge**

This study provides empirical validation of the strong and positive relationship between supply chain practices specifically customer/supplier management, technology adoption, and integrated supply chain management and organizational performance. By quantifying this relationship ( $R =$

0.781;  $R^2 = 0.610$ ), the study enriches the body of knowledge with robust statistical evidence demonstrating how these practices jointly account for a significant portion of organizational success. The study reveals that integrated supply chain management practices exert the strongest effect ( $\beta = 0.271$ ) on organizational performance compared to other predictors. This finding advances theoretical understanding by highlighting integration across procurement, inventory, and logistics as the most critical driver of performance, reinforcing the importance of internal and external alignment within supply chains. By establishing technology adoption ( $\beta = 0.226$ ) as a significant determinant of performance, the study extends existing literature on digital transformation in supply chain management. It demonstrates that the strategic implementation of technology enhances efficiency, coordination, and responsiveness contributing practical insights for firms seeking to strengthen competitiveness through technological innovation. The study contributes context-specific insights by empirically examining supply chain management practices within the environment under study (e.g., likely a developing or emerging economy). This adds to the limited literature from such contexts, offering comparative data and practical guidance for policymakers and practitioners on how supply chain strategies can be leveraged to improve organizational performance in resource-constrained or transitional economies.

#### **5.4 Conclusion**

This study set out to examine the relationship between supply chain practices namely customer/supplier management practices (CSUMPi), technology adoption (TEADi), and integrated supply chain management practices (ISCMPI) and organizational performance (ORGPE). The regression analysis revealed a strong positive relationship between the three supply chain variables and organizational performance, with an R value of 0.781 and an  $R^2$  of

0.610, indicating that about 61% of the variance in performance is explained by these practices. The results further demonstrated that all three predictors significantly and positively influence organizational performance, with integrated supply chain management practices emerging as the most influential factor. These findings highlight that organizations that effectively integrate their supply chain functions, embrace technological innovations, and maintain strong relationships with customers and suppliers are more likely to experience improved efficiency, competitiveness, and overall performance. The significant F-statistic and very low p-values confirm that the model is both statistically valid and reliable, providing robust evidence of the contribution of supply chain practices to organizational success. In line with prior studies, the results reaffirm that effective supply chain management is not merely an operational necessity but a strategic imperative for sustainable performance and long-term growth. Therefore, organizations should prioritize the continuous improvement of their supply chain processes, invest in relevant technologies, and strengthen collaboration across their supply networks. By doing so, they can enhance productivity, reduce operational inefficiencies, and achieve superior competitive advantage in a dynamic and technologically driven business environment.

### **5.3 Recommendations**

- Organizations should strengthen the integration of their procurement, inventory, logistics, and distribution processes. Developing seamless coordination across these functions promotes efficiency, reduces redundancy, and enhances responsiveness to market demands. Management should adopt integrated information systems that enable real-time communication and data sharing across departments and with external partners.
- Given the significant impact of technology adoption on organizational performance, firms should prioritize investments in modern digital tools such as Enterprise Resource Planning

(ERP), Supply Chain Management (SCM) software, and data analytics platforms. These technologies can improve forecasting accuracy, streamline operations, and facilitate evidence-based decision-making. Continuous training of employees on technological applications should also be encouraged to maximize the benefits of such investments.

- Organizations should build and maintain strong, mutually beneficial relationships with customers and suppliers. This can be achieved through regular communication, collaboration on product development, and long-term partnership agreements. Effective customer and supplier management enhances trust, reduces uncertainty, and ensures timely delivery of quality products, ultimately improving customer satisfaction and loyalty.
- Management should establish clear policies and strategies that promote sustainable and efficient supply chain operations. This includes adopting performance monitoring systems, setting measurable goals for supply chain efficiency, and incorporating sustainability principles such as waste reduction and ethical sourcing. Such initiatives not only enhance performance but also contribute to long-term competitiveness and corporate reputation.

#### **5.4 Suggestions for Further Studies**

Future research could explore whether factors such as organizational culture, leadership style, or innovation capability mediate or moderate the relationship between supply chain practices and organizational performance. This would provide deeper insight into how internal dynamics influence the strength or direction of these relationships. Since this study may have focused on a specific sector, future researchers should replicate it across diverse industries such as manufacturing, services, or retail to determine whether the observed relationships hold across different operational contexts. Comparative analyses between sectors could reveal industry-specific supply chain dynamics.

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## APPENDICES

### APPENDIX I

#### QUESTIONNAIRE

##### SECTION – A

##### Personal Data of Respondents

**Instruction:** Please tick  in the box with the answer you consider most appropriate.

1. **Gender of the respondent:** Male  Female
2. **Age of the Respondent:** 18–25  26–35  36–45  46 and above
3. **Educational Qualification:** SSCE/GCE  NCE/Diploma/OND or Equivalent  HND/B.Sc. or Equivalent.  Postgraduate
4. **Years of Experience:** less than 1  1–3 Years  4–6 Years  7 Years and above
5. **Sector of the Economy of your Business:** Wholesale/Retail  trade Real estate  Education  Manufacturing  Accommodation and food service  Healthcare

##### SECTION – B

##### General Questions on the Subject Matter

**Instruction:** Kindly read through the following statements and tick (  ) the option best representing your candid opinion in the box, also taking into cognizance the key terminologies,

**SA:** Strongly agree, **A:** Agree, **U:** Undecided, **SD:** Strongly disagree, **D:** Disagree.

S/N	Current supply chain management practices	SA	A	U	D	SD
1	Our organization maintains strong relationships with suppliers to ensure consistent quality and timely delivery.					
2	Technology and data analytics are effectively used to monitor and optimize our supply chain operations.					
3	The company’s supply chain practices are flexible enough to respond quickly to market or demand changes.					
4	Sustainability and environmental considerations are integrated into our supply chain decisions.					
5	Communication and coordination among suppliers, manufacturers, and distributors are efficient and effective.					
<b>Technology Adoption</b>						
1	Our organization actively adopts new technologies to improve supply chain efficiency and performance.					
2	The use of digital tools (e.g., IoT, AI, blockchain) has enhanced transparency and traceability in our supply chain operations.					

3	Employees in our supply chain are adequately trained to use newly implemented technologies effectively.					
4	The adoption of advanced technologies has reduced operational costs and improved overall productivity in our supply chain.					
5	Our management strongly supports investment in innovative technologies to maintain a competitive					
<b>Integrated Supply Chain Management Practices</b>						
1	Our organization maintains close coordination and information sharing with suppliers and customers to achieve supply chain integration.					
2	Different departments within our organization work collaboratively to support seamless supply chain operations.					
3	Integrated supply chain management practices have improved our ability to respond quickly to changes in customer demand.					
4	The use of integrated information systems has enhanced communication and decision-making across our supply chain.					
5	Our organization's long-term strategy emphasizes building strategic partnerships to strengthen supply chain integration and performance.					

**Thank you**

**APPENDIX II**

S/N	Demographics	Category	Frequency	Percent	Cumulative Percent
1	Gender of the respondent	Male	102	29.8	29.8
		Female	240	70.2	100.0
		<b>Total</b>	<b>342</b>	<b>100.0</b>	
2	Age of the Respondent	18–25	32	9.40	9.40
		26–35	178	52.0	61.4
		36–45	57	16.7	78.1
		46 and above	75	21.9	100.0
		<b>Total</b>	<b>342</b>	<b>100.0</b>	
3	Educational Qualification	SSCE/GCE	101	29.5	29.5
		NCE/Diploma/OND or Equivalent	118	34.5	64
		HND/B.Sc. or Equivalent	78	22.8	86.8
		Postgraduate	45	13.2	100.0
		<b>Total</b>	<b>342</b>	<b>100.0</b>	
4	Years Experience of	less than 1	43	12.6	12.6
		1–3 Years	145	42.4	55
		4–6 Years	82	24.0	79
		7 Years and above	74	21.0	100.0
		<b>Total</b>	<b>342</b>	<b>100.0</b>	
5	Sector of the Economy of your Business	Wholesale/Retail trade	12	3.56	3.56
		Real estate	18	5.26	8.82
		Education	29	8.48	17.3
		Manufacturing	78	22.8	40.1
		Accommodation and food service	85	24.9	65
		Healthcare	120	35	100.0
	<b>342</b>	<b>342</b>	<b>100.0</b>		

S/N	Items	SA	A	N	D	SD	Mean	Std Dev
1	Our organization maintains strong relationships with suppliers to ensure consistent quality and timely delivery.	150 (43.9%)	120 (35.1%)	40 (11.7%)	20 (5.8%)	12 (3.5%)	4.10	0.88
2	Technology and data analytics are effectively used to monitor and optimize our supply chain operations.	160 (46.8%)	110 (32.2%)	35 (10.2%)	22 (6.4%)	15 (4.4%)	4.10	0.91

S/N	Items	SA	A	N	D	SD	Mean	Std Dev
3	The company's supply chain practices are flexible enough to respond quickly to market or demand changes.	120 (35.1%)	130 (38.0%)	40 (11.7%)	30 (8.8%)	22 (6.4%)	3.87	1.03
4	Sustainability and environmental considerations are integrated into our supply chain decisions.	180 (52.6%)	105 (30.7%)	30 (8.8%)	15 (4.4%)	12 (3.5%)	4.25	0.86
5	Communication and coordination among suppliers, manufacturers, and distributors are efficient and effective.	200 (58.5%)	100 (29.2%)	25 (7.3%)	10 (2.9%)	7 (2.1%)	4.56	0.98
<b>Overall mean &amp; Standard Deviation</b>							<b>4.45</b>	<b>0.41</b>

S/N	Items	SA	A	N	D	SD	Mean	Std Dev
1	Our organization actively adopts new technologies to improve supply chain efficiency and performance.	175 (51.2%)	110 (32.2%)	30 (8.8%)	15 (4.4%)	12 (3.5%)	4.23	0.89
2	The use of digital tools (e.g., IoT, AI, blockchain) has enhanced transparency and traceability in our supply chain operations.	160 (46.8%)	125 (36.5%)	30 (8.8%)	15 (4.4%)	12 (3.5%)	4.19	0.87
3	Employees in our supply chain are adequately trained to use newly implemented technologies effectively.	130 (38.0%)	120 (35.1%)	40 (11.7%)	30 (8.8%)	22 (6.4%)	3.89	1.02
4	The adoption of advanced technologies has reduced operational costs and improved overall productivity in our supply chain.	180 (52.6%)	110 (32.2%)	25 (7.3%)	15 (4.4%)	12 (3.5%)	4.26	0.84
5	Our management strongly supports investment in innovative technologies to maintain a competitive	190 (55.6%)	105 (30.7%)	25 (7.3%)	12 (3.5%)	10 (2.9%)	4.33	0.81
<b>Overall mean &amp; Standard Deviation</b>							<b>4.18</b>	<b>0.89</b>

S/N	Items	SA	A	N	D	SD	Mean	Std Dev
1	Our organization maintains close coordination and information sharing with suppliers and customers to achieve supply chain integration.	185 (54.1%)	110 (32.2%)	25 (7.3%)	12 (3.5%)	10 (2.9%)	4.31	0.84
2	Different departments within our organization work collaboratively to support seamless supply chain operations.	160 (46.8%)	120 (35.1%)	35 (10.2%)	15 (4.4%)	12 (3.5%)	4.17	0.89
3	Integrated supply chain management practices have improved our ability to respond quickly to changes in customer demand.	175 (51.2%)	115 (33.6%)	30 (8.8%)	12 (3.5%)	10 (2.9%)	4.26	0.86
4	The use of integrated information systems has enhanced communication and decision-making across our supply chain.	180 (52.6%)	115 (33.6%)	25 (7.3%)	12 (3.5%)	10 (2.9%)	4.29	0.83
5	Our organization's long-term strategy emphasizes building strategic partnerships to strengthen supply chain integration and performance.	140 (40.9%)	120 (35.1%)	40 (11.7%)	25 (7.3%)	17 (5.0%)	3.99	0.96
<b>Overall mean &amp; Standard Deviation</b>								

#### 4.4 Regression Analysis Results

##### Model Summary<sup>b</sup>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0.781	0.610	0.605	0.427	2.042

a. Predictors: (Constant),  $CSUMP_i$ ,  $TEAD_i$ ,  $ISCP_i$

b. Dependent Variable:  $ORGPE$

**ANOVA<sup>a</sup> results**

<b>Model</b>	<b>Sum of Squares</b>	<b>Df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
Regression	68.451	4	17.113	93.65	0.000 <sup>b</sup>
Residual	43.762	337	0.130		
Total	112.213	341			

a. **Dependent Variable:** *ORGPE*

b. Predictors: (Constant),  $CSUMP_i$ ,  $TEAD_i$ ,  $ISCMP_i$

**Dependent Variable:** *ORGPE*

**Coefficients<sup>a</sup>**

<b>Independent Variables</b>	<b>Unstandardized Coefficients</b>		<b>Standardized Coefficients</b>	<b>t</b>	<b>Sig.</b>
	<b>B</b>	<b>Std. Error</b>	<b>Beta</b>		
(Constant)	0.842	0.112	-	7.52	0.000
$CSUMP_i$	0.211	0.054	0.204	3.91	0.000
$TEAD_i$	0.235	0.049	0.226	4.80	0.000
$ISCMP_i$	0.278	0.051	0.271	5.45	0.000