Int. j. adv. multidisc. res. stud. 2026; 6(1):2178-2187

Received: 02-01-2026
Accepted: 01-02-2026

International Journal of Advanced Multidisciplinary Research and Studies

ISSN: 2583-049X

Assessing the Effects of Supply Chain Management Practices on Operational Efficiency: A Case Study of Trade Kings Zambia Limited

[1] Mable Chindalo, [2] Dr. Chisala Bwalya

[1, 2] Department of Social Sciences, Information and Communications University (ICU), Zambia Research and Development Center, Lusaka, Zambia

DOI: https://doi.org/10.62225/2583049X.2026.6.1.5786

Corresponding Author: **Mable Chindalo**

Abstract

This study assessed the effects of supply chain management (SCM) practices on operational efficiency at Trade Kings Zambia Limited. The study aimed to identify the key SCM practices adopted, examine their relationship with operational efficiency, and explore the challenges faced in implementing these practices. A descriptive case study design employing both qualitative and quantitative approaches was used. Data were collected through structured questionnaires and semi-structured interviews with employees across procurement, logistics, and sales departments, while secondary data were obtained from company reports and operational records. Quantitative data were analyzed using statistical tools, and qualitative data were examined through thematic analysis.

Findings revealed that Trade Kings Zambia Limited adopts several key SCM practices, including demand forecasting, inventory management, supplier collaboration, technology integration, and logistics optimization. These practices were found to positively influence operational efficiency by reducing stock outs, minimizing costs, improving product quality, and ensuring timely deliveries. However, challenges such as limited technological adoption, supplier reliability issues, high implementation costs, infrastructure limitations, and poor internal coordination were identified as barriers that hindered optimal performance.

The study concludes that effective SCM practices are critical drivers of operational efficiency in the FMCG sector. It recommends strengthening supplier partnerships, enhancing technology integration, optimizing inventory and production management, improving logistics and transportation infrastructure, fostering cross-departmental coordination, building staff capacity, developing risk management strategies, and integrating sustainable practices. Implementing these recommendations will enhance Trade Kings' operational performance, resilience, and competitiveness, providing insights for strategic decision-making and contributing to knowledge on SCM effectiveness within the Zambian FMCG context.

Keywords: Supply Chain Management, Operational Efficiency, FMCG, Supplier Collaboration, Logistics Optimization

1. Introduction

1.1 Background

Supply chain management (SCM) has become a vital strategic tool for enhancing operational efficiency and competitiveness, particularly in the manufacturing and FMCG sectors, as it integrates procurement, production, inventory, logistics, and distribution to deliver goods effectively at minimal cost (Chopra & Meindl, 2021; Christopher, 2016) [21, 19]. In Sub-Saharan Africa, including Zambia, firms face challenges such as inadequate infrastructure, fluctuating demand, high logistics costs, and limited technological adoption, which often hinder operational efficiency (Mwansa & Tembo, 2022). Trade Kings Zambia Limited, a leading FMCG manufacturer, operates in this dynamic environment and must continuously optimize its SCM practices to maintain competitiveness, improve inventory management, coordinate suppliers, and control costs. While global studies show that best SCM practices such as lean inventory systems, supplier relationship management, and digital technologies enhance responsiveness, reduce costs, and boost productivity (Simchi-Levi *et al*., 2020 [71]; Zhang *et al*., 2018), localized evidence in Zambia remains limited. This study therefore investigates the relationship between SCM practices and operational efficiency at Trade Kings Zambia Limited to provide practical insights and recommendations for improving supply chain performance in the Zambian manufacturing sector.

1.2 Statement of the Problem

In the competitive manufacturing environment, organizations face pressure to enhance operational efficiency while maintaining quality and minimizing costs, with supply chain management (SCM) recognized as a key strategy for achieving these objectives (Chopra & Meindl, 2021; Christopher, 2016) [21, 19]. In developing countries such as Zambia, persistent operational inefficiencies including high production costs, stockouts, delayed deliveries, and poor inventory management are often linked to weak SCM practices, such as poor supplier coordination, limited technological adoption, inadequate logistics infrastructure, and fragmented internal processes (Mwansa & Tembo, 2022; Simchi-Levi *et al*., 2020 [71]). Trade Kings Zambia Limited, a leading FMCG firm, operates in a dynamic environment with rising transport costs, supply disruptions, and competitive pressures. However, there is limited empirical evidence on how its SCM practices influence operational efficiency and whether these strategies align with its operational goals. Furthermore, few studies have examined SCM within the Zambian FMCG sector, creating a gap in both academic knowledge and practical application (Zhang *et al*., 2018). This study therefore aims to assess the effects of SCM practices on operational efficiency at Trade Kings Zambia Limited to identify gaps, challenges, and opportunities for improvement.

1.3 Research Objectives

1.3.1 General Objective

To assess the effects of supply chain management practices on operational efficiency at Trade Kings Zambia Limited.

1.3.2 Specific Objectives

1. To examine the key supply chain management practices adopted by Trade Kings Zambia Limited.
2. To determine the relationship between supply chain management practices and operational efficiency at Trade Kings Zambia Limited.
3. To examine the limitations faced by Trade Kings Zambia Limited in implementing effective supply chain management practices.

1.4 Theoretical Framework

This study is guided by the Resource-Based View (RBV), which posits that firms achieve and sustain competitive advantage by effectively acquiring, deploying, and managing valuable internal resources and capabilities that are valuable, rare, inimitable, and non-substitutable (Barney, 1991; Wernerfelt, 1984; Peteraf, 1993) [5, 80, 63]. In the context of Trade Kings Zambia Limited, supply chain management (SCM) practices including procurement systems, inventory management, supplier relationships, logistics capabilities, and digital technologies constitute strategic resources that, when integrated effectively, enhance operational efficiency by reducing costs, minimizing delays, and improving service delivery. RBV emphasizes that these capabilities become a source of competitive advantage when they are difficult for competitors to replicate, such as through established supplier networks, skilled personnel, and customized processes (Barney & Hesterly, 2019) [6]. Furthermore, the theory underscores the need for continuous development and reconfiguration of resources in response to market changes, technological advances, and operational challenges (Teece, Pisano & Shuen, 1997) [73]. Applying RBV allows this study to assess whether Trade Kings' SCM practices are strategically valuable and aligned with operational goals, and whether operational inefficiencies arise from underutilized or poorly integrated resources.

1.5 Significance of Study

This study is significant as it provides Trade Kings Zambia Limited with valuable insights into how their supply chain management practices affect operational efficiency, enabling management to identify strengths and areas needing improvement to enhance productivity and cost-effectiveness. Additionally, the research contributes to the limited academic literature on SCM in the Zambian manufacturing context, offering empirical evidence that can inform both local firms and policymakers on challenges and best practices in supply chain optimization. Furthermore, the findings can guide policymakers in creating supportive frameworks to improve infrastructure and capacity within the sector, while also serving as a reference for future researchers and practitioners interested in SCM and operational performance in developing economies.

2. Literature Review

2.1 The key supply chain management practices adopted by Trade Kings Limited

Chopra and Meindl (2021) [21] found that integrated supply chain management (SCM) practices, including procurement, inventory management, supplier relationship management (SRM), and logistics coordination, significantly enhance operational efficiency across manufacturing and FMCG sectors. Their findings are supported by Paulraj, Chen, and Flynn (2008) [62], who argued that mature SCM processes reduce costs, inventory levels, and delivery delays. Similarly, Ivanov *et al*. (2019) highlighted that digital technologies like ERP, AI, and IoT improve supply chain visibility, resource optimization, and decision-making, while Wamba *et al*. (2020) emphasized predictive analytics for demand forecasting and operational responsiveness. Conversely, Ahi and Searcy (2013) [2] cautioned that global best practices may not be fully transferable to developing contexts due to infrastructural and regulatory limitations.

Mwansa and Tembo (2022) demonstrated that structured procurement, inventory management, and SRM improved operational efficiency in Southern African manufacturing firms, aligning with Phiri *et al*. (2019) [65], who found effective supplier collaboration enhances responsiveness and reduces uncertainties. Munyeka and Siwale (2020) [50] observed that firms adopt hybrid strategies, such as centralized distribution hubs, to overcome infrastructural and logistical challenges. Chibwe and Zulu (2022) [15] highlighted the growing adoption of digital tools to enhance supply chain resilience, while Kabwe and Musonda (2019) noted that poor road networks, inconsistent policy enforcement, and limited technology adoption constrain full SCM benefits in the region.

Mulenga and Banda (2020) found that Zambian FMCG firms, including Trade Kings Limited, rely on procurement strategies combining local sourcing and imports, inventory optimization, and collaborative supplier management to improve operational efficiency. Mwila and Phiri (2019) [58] corroborated that effective procurement and inventory control reduce production downtime and improve service delivery. Phiri and Ng'andu (2021) emphasized that limited infrastructure and unreliable transport networks reduce the

effectiveness of JIT and EOQ inventory strategies. Kabwe and Musonda (2019) additionally identified supplier unreliability and high logistics costs as major constraints, underscoring the need for localized SCM adaptations tailored to Zambian operational realities.

Across global, regional, and Zambian contexts, there is consensus that key SCM practices procurement, inventory management, supplier collaboration, logistics, and technology adoption positively impact operational efficiency (Chopra and Meindl, 2021 [21]; Mwansa and Tembo, 2022; Mulenga and Banda, 2020). However, contextual factors, including infrastructure, regulatory environment, and technological readiness, strongly influence effectiveness (Ahi and Searcy, 2013 [2]; Kabwe and Musonda, 2019). Local evidence highlights the importance of adapting global best practices to meet the specific operational challenges faced by Zambian FMCG firms.

2.2 The relationship between supply chain management practices and operational efficiency at Trade Kings Limited.

Christopher (2016) [19] highlighted that supply chain management (SCM) practices, including procurement, inventory control, supplier relationship management (SRM), and logistics integration, significantly enhance operational efficiency in manufacturing and FMCG firms. Zhang *et al*. (2018) similarly found that supply chain flexibility improves responsiveness and reduces production delays, while Ketchen and Hult (2007) argued that integrated SCM reduces operational costs and enhances delivery performance. Wamba *et al*. (2020) emphasized the role of digital technologies such as ERP, RFID, and blockchain in optimizing supply chain operations. However, Manuj and Mentzer (2008) [45] noted that in emerging markets, infrastructural and cultural challenges may limit SCM effectiveness, suggesting the need for contextual adaptation.

Mwansa and Tembo (2022) reported that effective SCM practices enhance operational efficiency in Southern African manufacturing firms, particularly through procurement and supplier collaboration. Phiri *et al*. (2019) [65] observed that structured procurement and inventory management reduce stockouts and production downtime in Zambian firms, while Banda and Phiri (2021) [7] found that lean inventory practices lower holding costs and improve delivery performance. Ngoma and Venter (2019) stressed that poor infrastructure and high transport costs constrain logistics effectiveness, contrasting with firms that adopt centralized warehousing and route optimization, which improve operational efficiency. Chikodzi and Nyama (2020) added that regulatory and macroeconomic factors further influence SCM outcomes in the region.

Phiri *et al*. (2019) [65] found that Zambian FMCG and manufacturing firms achieve higher operational efficiency through structured procurement, SRM, and inventory management. Banda and Phiri (2021) [7] emphasized that effective inventory practices reduce delays and costs, while Chanda and Lungu (2020) reported that improved logistics integration enhances timely deliveries despite infrastructural challenges. Mwansa (2020) highlighted that uneven adoption of digital technologies such as ERP limits responsiveness, whereas Kunda *et al*. (2018) recommended investing in scalable digital solutions tailored to local conditions. Tembo and Simwaka (2017) noted persistent challenges like delayed payments and supplier unreliability, which moderate SCM effectiveness.

Across global, regional, and local contexts, studies consistently demonstrate a positive relationship between integrated SCM practices and operational efficiency. Globally, adaptive procurement, inventory optimization, and digital adoption yield cost reductions and faster deliveries (Zhang *et al*., 2018; Ketchen and Hult, 2007; Wamba *et al*., 2020; Christopher, 2016 [19]). Regionally, African firms face additional constraints such as poor infrastructure, inconsistent suppliers, and regulatory complexities (Mwansa and Tembo, 2022; Ngoma and Venter, 2019; Phiri *et al*., 2019 [65]; Chikodzi and Nyama, 2020). Locally, Zambian firms like Trade Kings Limited benefit from tailored SCM practices, but challenges like logistical inefficiencies, limited technology adoption, and supplier issues necessitate context-specific strategies (Banda and Phiri, 2021 [7]; Kunda *et al*., 2018; Tembo and Simwaka, 2017; Chanda and Lungu, 2020).

2.3 The Taxation and SME Operational Costs

Christopher and Holweg (2017) [20] note that globalization increases supply chain complexity, leading to coordination difficulties across suppliers and markets. Similar results were reported by Brusset and Teller (2017) [10] and Rushton, Croucher, and Baker (2017) [69], who emphasized logistical inefficiencies and infrastructure constraints. Wang *et al*. (2016) partially challenged this by cautioning that over-reliance on digital tools may expose firms to cybersecurity risks, while Wamba *et al*. (2020) and Gunasekaran *et al*. (2017) [31] highlighted technological adoption barriers, including high costs and lack of skilled personnel. Overall, global studies show that integrated coordination, digital adoption, and supplier collaboration are essential but complex to implement.

Mwansa and Tembo (2022) highlighted that infrastructural deficits, poor roads, and unreliable power increase logistics costs and disrupt supply chains, echoed by Ngoma and Venter (2019) and Nyama (2020) argued that policy and regulatory unpredictability further compound inefficiencies. Supplier-related issues, including delays and quality inconsistencies, were reported by Tembo and Simwaka (2017) and Makani *et al*. (2021), while Chinomona and Sandada (2013) emphasized the importance of trust and cultural factors. Collectively, regional studies underscore that localized adaptations and risk management strategies are critical for SCM effectiveness.

In Zambia, Mulenga and Banda (2020) and Mwila and Phiri (2019) [58] demonstrated that robust procurement, inventory, and logistics practices enhance operational efficiency. Infrastructure and technological gaps remain major challenges, as noted by Ngoma and Venter (2019), Chanda and Lungu (2020), and Mwansa (2020), while Kunda *et al*. (2018) stressed high adoption costs and limited IT skills. Supplier management challenges, including inconsistent quality and delayed payments, were highlighted by Tembo and Simwaka (2017) and Makani *et al*. (2021). Regulatory uncertainties and human resource constraints further complicate SCM, emphasizing the need for integrated, context-specific strategies (Chikodzi and Nyama, 2020; Munyaka *et al*., 2022 [51]). Global evidence suggests that digital technology, logistics integration, and supplier relationship management improve supply chain efficiency (Ketchen and Hult, 2007; Zhang *et al*., 2018; Li *et al*., 2006; Cousins *et al*., 2019). In Africa, firms adopt region-specific

practices such as centralized distribution and modified JIT systems to mitigate infrastructure limitations (Phiri and Ng'andu, 2021; Chikumbi and Mwale, 2021; Munyeka and Siwale, 2020 [50]; Tlhomelang and Mokonyane, 2022). Zambian studies indicate that firms like Trade Kings Limited can benefit from integrated SCM approaches, combining procurement, supplier collaboration, logistics, and technology adoption, while also addressing local challenges such as infrastructure, regulation, and skilled labor shortages (Mulenga and Banda, 2020; Chanda and Tembo, 2018 [14]; Simutanyi and Mutambala, 2020 [72]; Phiri *et al*., 2021 [66]).

3. Research Methodology

3.1 Research Design

A mixed-methods research design was adopted to assess SCM practices and operational efficiency at Trade Kings Zambia Limited, integrating quantitative and qualitative approaches (Creswell, 2014; Johnson and Onwuegbuzie, 2004) [22, 34]. Quantitative data was collected to measure SCM practices and operational outcomes statistically (Saunders, Lewis and Thornhill, 2019) [70], while qualitative data from interviews provided contextual understanding of challenges and perceptions (Bryman, 2016; Venkatesh, Brown and Bala, 2013 [76]). This design allowed for triangulation and enhanced validity by combining measurable outcomes with in-depth insights (Fetters, Curry and Creswell, 2013) [70].

3.2 Target Population

The study focused on employees and management staff directly involved in supply chain operations at Trade Kings Zambia Limited, including procurement, logistics, inventory management, warehousing, production, and senior management (Kothari, 2004 [38]; Bryman, 2016). These participants provided practical insights into SCM practices and operational efficiency. Internal staff were targeted to ensure data reflected actual company operations, consistent with similar studies in the FMCG and manufacturing sectors (Makani *et al*., 2021; Mwansa and Tembo, 2022).

3.3 Sampling Design

Purposive sampling was employed to select participants with expertise in SCM practices, including procurement officers, logistics managers, warehouse supervisors, and senior management (Etikan, Musa and Alkassim, 2016 [27]; Bryman, 2016). A stratified approach ensured inclusion of respondents from different functional areas and management levels, capturing diverse perspectives on supply chain operations (Creswell, 2014) [22]. Sample selection was guided by data saturation principles for qualitative interviews and adequate representation for quantitative analysis (Guest, Bunce and Johnson, 2006) [32].

3.4 Sample Size

A total of 50 participants were targeted, combining quantitative and qualitative components. Quantitative data included key SCM function employees, while qualitative interviews involved 12–20 key informants expanded for diversity (Makani, Mbohwa and Adeoti, 2021 [43]; Mwansa and Tembo, 2022; Guest, Bunce and Johnson, 2006 [32]). This sample allowed for effective triangulation and robust conclusions, balancing breadth and depth.

3.5 Data Collection Methods

Structured questionnaires were used for quantitative data to measure SCM practices, challenges, and operational efficiency using Likert-scale and closed-ended items (Bryman, 2016; Creswell, 2014 [22]). Semi-structured interviews captured qualitative insights from key informants regarding perceptions, experiences, and contextual factors influencing SCM implementation (Kumar, 2019; Flick, 2018) [39, 30]. Document review of internal reports and operational records was conducted to triangulate and validate data from questionnaires and interviews (Saunders, Lewis and Thornhill, 2019; Fetters, Curry and Creswell, 2013) [70, 28].

3.6 Data Analysis

Quantitative data were coded and analyzed using STATA and Excel. Descriptive statistics summarized SCM practices and operational efficiency, while correlation and regression analyses examined relationships and significant predictors (Bryman, 2016; Field, 2018 [29]). Qualitative interview data were analyzed thematically, coding responses to identify patterns and key themes regarding SCM challenges and operational outcomes (Braun and Clarke, 2006; Flick, 2018) [9, 30]. Integration of quantitative and qualitative results facilitated triangulation and enhanced validity (Fetters, Curry and Creswell, 2013) [28].

3.7 Triangulation

Triangulation combined questionnaires, interviews, and document review to enhance credibility, validity, and depth (Denzin, 1978 [26]; Bryman, 2016; Creswell and Plano Clark, 2017 [23]). Quantitative patterns were explained and enriched with qualitative insights, reducing biases and capturing multiple perspectives across employee levels and departments.

3.8 Limitations of the Study

Purposive sampling may limit generalizability beyond Trade Kings Zambia Limited (Etikan, Musa and Alkassim, 2016) [27]. Self-reported data are susceptible to social desirability and recall bias (Bryman, 2016). The cross-sectional design restricts causal inference and longitudinal insights (Creswell, 2014) [22]. External factors, such as economic fluctuations or pandemics, were beyond control (Phiri, Mulenga and Chikumba, 2021). Resource and time constraints may limit sample size and qualitative depth (Saunders, Lewis and Thornhill, 2019) [70].

3.9 Ethical Considerations

Informed consent was obtained, and participants were briefed on the study's purpose, procedures, and voluntary participation (Saunders, Lewis and Thornhill, 2019 [70]; Bryman, 2016). Confidentiality and anonymity were ensured through coding and secure data storage (Creswell, 2014) [22]. The study avoided harm, complied with national and institutional ethical guidelines, and sought ethics approval prior to data collection. Findings were reported truthfully, ensuring transparency and research integrity (Saunders, Lewis and Thornhill, 2019) [70].

4. Results/Findings

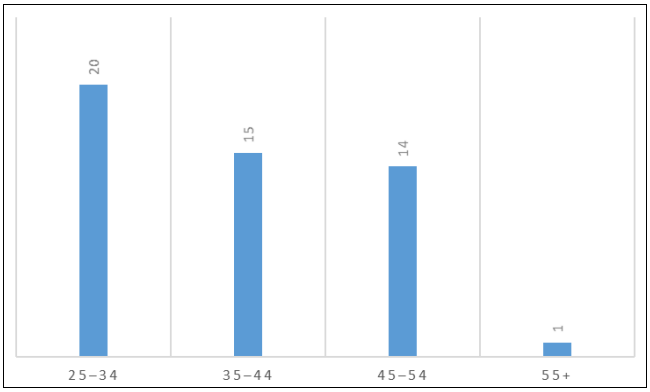
4.1 Demographic Information

Table 4.1: Gender

Gender	Percent
Male	50%
Female	50%
Total	100%

Source: Primary Data

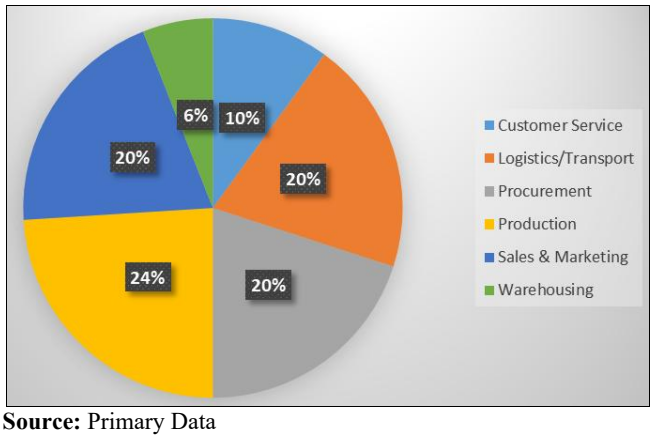
The sample for the study is evenly distributed between genders, with 25 females (50%) and 25 males (50%). This gender balance ensures that the perspectives of both male and female employees are equally represented in assessing the effects of supply chain management practices on operational efficiency. Such an equal representation reduces gender bias and enhances the reliability of the study findings, particularly in understanding how SCM practices are perceived and implemented across the workforce.



Source: Primary Data

Fig 4.1: Age

The majority of respondents fall within the 25–34 years age group, comprising 40% of the sample, followed by 35–44 years at 30% and 45–54 years at 28%. Only 2% of respondents are aged 55 and above. This indicates that Trade Kings Zambia Limited has a predominantly young and middle-aged workforce, which may contribute to adaptability to modern supply chain technologies and practices. The age diversity also allows for insights that reflect both contemporary approaches and more experienced perspectives in operational processes.



Source: Primary Data

Fig 4.2: Department Distribution

Respondents are drawn from across key operational departments, with Production having the largest share at 24%, followed by Logistics/Transport, Procurement, and Sales & Marketing, each at 20%, while Customer Service and Warehousing account for 10% and 6% respectively. This departmental diversity ensures that the study captures SCM practices from different functional areas, providing a holistic understanding of how supply chain management influences operational efficiency across the organization. It highlights the cross-functional nature of SCM and its impact on various organizational processes.

4.2 Key Supply Chain Management Practices

Table 4.2: Supplier Relationships and Information Sharing

Trade Kings has strong partnerships with its key suppliers	Information is shared openly and timely between suppliers, the company, and dist			
	Agree	Moderate	Strongl..	Total
Agree	18	4	5	27
Moderate	1	9	0	10
Strongly agree	6	0	7	13
Total	25	13	12	50

Source: Primary Data

The study found that Trade Kings Zambia Limited maintains strong partnerships with its key suppliers, with 27 respondents (54%) agreeing, 13 (26%) strongly agreeing, and 10 (20%) indicating moderate agreement. Information is shared openly and timely between suppliers, the company, and distributors, which suggests that effective communication underpins these partnerships. This level of collaboration supports smoother operations, minimizes delays, and ensures that both quality and cost objectives are met. The findings indicate that supplier relationship management is a critical SCM practice contributing to operational efficiency.

Table 4.3: Technology Integration in SCM

Technology (ERP, tracking systems, etc.) is integrated into supply chain operati	Demand forecasting and production planning are regularly carried out			
	Agree	Moderate	Strongl..	Total
Agree	21	6	3	30
Moderate	4	4	0	8
Strongly agree	2	0	10	12
Total	27	10	13	50

Source: Primary Data

The integration of technology, such as ERP systems and tracking tools, alongside demand forecasting and production planning, is a significant practice at Trade Kings. According to the data, 30 respondents (60%) agreed, 12 (24%) strongly

agreed, and 8 (16%) moderately agreed that these technologies are effectively applied. This demonstrates that technology enhances planning accuracy, inventory tracking, and production efficiency, which reduces errors and supports timely decision-making. Consequently, technology adoption is a key enabler of operational efficiency in the organization.

Table 4.4: Inventory Management and Logistics Efficiency

Inventory is managed using systematic practices (e.g., JIT, safety stock, re-ord	Logistics and transport systems are efficient and well-coordinated			
	Agree	Moderate	Strongl..	Total
Agree	18	4	5	27
Moderate	4	7	0	11
Strongly agree	1	0	11	12
Total	23	11	16	50

Source: Primary Data

The findings show that inventory is systematically managed using practices like JIT, safety stock, and re-order levels, with 27 respondents (54%) agreeing and 12 (24%) strongly agreeing. Similarly, logistics and transport systems are well-coordinated, ensuring timely deliveries. The results suggest that proper inventory and logistics management reduce stockouts, overstocking, and wastage, ultimately improving operational flow. This highlights that effective inventory and transport systems are fundamental SCM practices that positively affect efficiency.

4.3 Relationship Between SCM Practices and Operational Efficiency

Table 4.5: Supplier Partnerships and IT Integration

Effective supplier partnerships improve product quality and reduce costs.	Information sharing and IT integration reduce delays and errors in operations			
	Agree	Moderate	Strongl..	Total
Agree	18	3	5	26
Moderate	1	10	0	11
Strongly agree	6	0	7	13
Total	25	13	12	50

Source: Primary Data

The data indicate that effective supplier partnerships at Trade Kings significantly improve product quality and reduce costs, with 26 respondents (52%) agreeing, 13 (26%) strongly agreeing, and 11 (22%) moderately agreeing. Additionally, information sharing and IT integration help reduce operational delays and errors. This combination of collaboration and technology facilitates smoother communication, faster problem resolution, and more reliable supply chains, reinforcing the role of supplier relationships as a cornerstone of operational efficiency.

Table 4.6: Inventory Management and Logistics Efficiency

Proper inventory management helps reduce stockouts and holding costs	Efficient logistics improve customer satisfaction through timely deliveries			
	Agree	Moderate	Strongl..	Total
Agree	24	4	2	30
Moderate	2	5	0	7
Strongly agree	2	0	11	13
Total	28	9	13	50

Source: Primary Data

Proper inventory management and efficient logistics were highlighted as key drivers of operational effectiveness. Thirty respondents (60%) agreed, and 13 (26%) strongly agreed that systematic inventory practices help reduce stockouts and holding costs, while efficient logistics improve customer satisfaction through timely deliveries. These findings demonstrate that Trade Kings' SCM practices minimize wastage, maintain optimal stock levels, and enhance service reliability, directly contributing to operational efficiency.

Table 4.7: Overall Impact of SCM Practices

Overall, supply chain management practices contribute positively to operational	Freq.	Percent	Cum.
Agree	27	54.00	54.00
Moderate	9	18.00	72.00
Strongly agree	14	28.00	100.00
Total	50	100.00	

Source: Primary Data

Overall, supply chain management practices at Trade Kings positively contribute to operational efficiency, with 27 respondents (54%) agreeing, 14 (28%) strongly agreeing, and 9 (18%) moderately agreeing. Moreover, 78% of respondents affirmed that operational efficiency has improved in the past 12 months due to SCM practices, while 22% were not sure. This confirms that SCM initiatives ranging from supplier partnerships and inventory control to technology adoption have tangible benefits for organizational performance.

4.4 Challenges in Implementing SCM Practices

Table 4.8: Challenges in Supply Chain Management

Inadequate supplier reliability is a challenge in achieving efficient operations	Limited technology and system integration hinder effective supply chain manageme			
	Agree	Moderate	Strongl..	Total
3	1	0	0	1
Agree	19	2	6	27
Moderate	4	9	0	13
Strongly agree	3	0	6	9
Total	27	11	12	50

Source: Primary Data

The findings indicate several challenges affecting SCM practices at Trade Kings. Inadequate supplier reliability and limited technology integration were noted, with 27 respondents (54%) agreeing and 9 (18%) strongly agreeing that these issues hinder efficient operations. Transportation and logistics infrastructure also affect delivery reliability, and high costs of adopting modern SCM practices make implementation difficult, with 35 respondents (70%) agreeing. Additionally, internal coordination between departments emerged as a challenge, with 33 respondents (66%) agreeing that it impedes smooth operations. These results highlight that operational inefficiencies are often linked to both external factors (suppliers, infrastructure) and internal organizational issues (coordination, system limitations).

Table 4.8: Transportation and Logistics Infrastructure Challenges

Transportation and logistics infrastructure affect delivery reliability.	High costs of adopting modern SCM practices make implementation difficult	
	Agree	Moderate	Total
Agree	27	8	35
Moderate	2	13	15
Total	29	21	50

Source: Primary Data

The study revealed that transportation and logistics infrastructure significantly affect delivery reliability at Trade Kings Zambia Limited. A majority of respondents, 35 out of 50 (70%), agreed that infrastructure limitations hinder timely deliveries, while 15 respondents (30%) expressed moderate agreement. Additionally, high costs of adopting modern SCM practices make implementation challenging, highlighting the financial barriers associated with upgrading logistics systems. These findings suggest that both physical infrastructure and cost considerations are critical constraints to efficient supply chain operations.

Table 4.9: Internal Coordination Challenges

Internal coordination between departments is a challenge	Freq.	Percent	Cum.
Agree	33	66.00	66.00
Moderate	13	26.00	92.00
Strongly agree	4	8.00	100.00
Total	50	100.00	

Source: Primary Data

Internal coordination between departments also emerged as a significant challenge. Most respondents, 33 (66%), agreed that poor interdepartmental coordination affects operational efficiency, while 13 (26%) indicated moderate agreement, and 4 (8%) strongly agreed. This demonstrates that inefficiencies within internal communication and collaboration can slow down SCM processes, reduce responsiveness, and limit the overall effectiveness of supply chain practices. Strengthening interdepartmental coordination is therefore essential for optimizing operational performance.

4.5 Discussion of Results

The findings of this study indicate that supply chain management (SCM) practices at Trade Kings Zambia Limited significantly enhance operational efficiency. Strong supplier relationships, effective information sharing, and technology integration were identified as key enablers of smoother operations, reduced delays, and cost optimization. Systematic inventory management and efficient logistics were also highlighted as critical factors, ensuring timely deliveries, minimizing stockouts, and reducing wastage. Overall, 78% of respondents reported improvements in operational efficiency over the past year due to these SCM practices. However, challenges such as limited supplier reliability, infrastructure constraints, high implementation costs, and internal coordination issues continue to affect optimal performance, suggesting that both external and internal factors influence SCM effectiveness.

These results are consistent with previous studies emphasizing the positive impact of SCM practices on operational efficiency. For example, Baryannis, Dani, and Antoniou (2019) [4] note that strategic supplier partnerships and information sharing improve responsiveness and reduce operational costs in supply chains. Similarly, Chaffey and Ellis-Chadwick (2019) [11] highlight the role of technology integration, such as ERP systems, in streamlining operations and enhancing decision-making. However, some studies report differing challenges; for instance, inadequate infrastructure and high implementation costs have been identified as barriers to SCM efficiency in developing countries (Christopher, 2016; Mentzer *et al*., 2001) [19, 46]. Overall, the findings of this study corroborate the literature that effective SCM practices promote operational efficiency while also underscoring the persistent contextual challenges faced in the Zambian FMCG sector.

5. Conclusion and Recommendations

5.1 Conclusion

The study found that Trade Kings Zambia Limited effectively leverages supply chain management (SCM) practices to enhance operational efficiency. Key global SCM practices, including strategic supplier partnerships, information sharing, technology integration (ERP and tracking systems), inventory management, logistics optimization, and demand forecasting, contributed to reduced stockouts, cost minimization, improved product quality, and timely deliveries. Regionally, the study highlighted challenges common in Sub-Saharan Africa, such as infrastructure limitations, supplier inconsistencies, high implementation costs, and poor internal coordination, which constrain the full potential of SCM. Locally, 78% of respondents reported improved operational efficiency over the past year, with department-specific gains in production, procurement, logistics, and customer service. The study underscores the critical role of technological integration, reliable supplier relationships, and cross-functional coordination in driving SCM effectiveness, while emphasizing the need to adapt global best practices to address local and regional constraints. Overall, SCM is confirmed as a strategic enabler that integrates internal processes and external partnerships, enhancing operational performance, competitiveness, and organizational sustainability.

5.2 Recommendations

To enhance supply chain management (SCM) and operational efficiency at Trade Kings Zambia Limited, the company should prioritize strengthening supplier partnerships through long-term contracts, performance monitoring, and supplier development programs. These initiatives will ensure consistent delivery, high-quality materials, and a resilient supply chain capable of responding to local and regional market demands. Technology integration is also critical, with investments in ERP systems, inventory tracking, automated warehouse management, and demand forecasting tools enabling real-time data visibility, accurate decision-making, and improved responsiveness in procurement, production, and distribution.

Optimizing inventory and production management is essential for reducing costs and preventing stockouts. Practices such as just-in-time (JIT), safety stock monitoring, and accurate production planning can align supply with demand while avoiding bottlenecks and inefficiencies. Improving logistics and transportation infrastructure, including fleet upgrades, route optimization, and collaboration with reliable third-party providers, will enhance delivery reliability and operational performance. Additionally, internal coordination should be strengthened by establishing cross-functional SCM teams, structured communication channels, and shared performance dashboards to promote collaboration, reduce redundancy, and improve process integration.

Continuous staff training and capacity building on SCM tools, technologies, and global best practices are vital to ensure effective implementation of modern supply chain strategies. Developing comprehensive risk management and contingency plans, such as alternative sourcing and inventory buffers, will increase resilience to disruptions like supply shortages, transport delays, and economic fluctuations. Finally, integrating sustainability practices, including energy-efficient logistics, environmentally friendly packaging, and responsible sourcing, will not only reduce environmental impact but also improve operational efficiency and strengthen brand reputation. By implementing these recommendations, Trade Kings can achieve a more efficient, resilient, and competitive supply chain aligned with both regional and global best practices.

6. Acknowledgment

I would like to express my deepest gratitude to the Zambia Research and Development Committee for their generous sponsorship and the unwavering trust they placed in me to succeed. Their support and belief In my potential have been a driving force throughout this academic journey.

My sincere appreciation goes to my lecturer, Mr. Kabubi, for imparting invaluable knowledge in research and for guiding me with patience and dedication. I am also profoundly thankful to Dr. Chisala, whose supervision and mentorship during my final-year project have been instrumental in shaping my research skills and academic growth.

Special thanks are extended to Dr. Sychorax and Dr. Siwila for their assistance, encouragement, and invaluable contributions, which enhanced the quality and completion of this work.

I am deeply grateful to my best friend, Gideon Banda, for his financial support, motivation, and constant encouragement during challenging times. I also want to thank my wonderful friends Gloria, Rufaro, Zoe, Nkole, Carol, Godwin, Linda, Josephine, and Tineyi and many more, for their unwavering friendship, emotional support, and inspiration throughout my academic journey.

7. References

1. Akampurira J, Mugisha F, Kyomuhendo C. Tax compliance and SME performance in Uganda. Journal of African Business. 2025; 26(1):45-62.
2. Ahi P, Searcy C. A comparative literature analysis of definitions for green and sustainable supply chain management. Journal of Cleaner Production. 2013; 52:329-341.
3. Bai C, Sarkis J. Sustainable supply chain management in practice: Evidence from global firms. International Journal of Production Economics. 2020; 227:107-116.
4. Baryannis G, Dani S, Antoniou G. Predictive analytics and artificial intelligence in supply chain management: Review and implications for the future. Computers & Industrial Engineering. 2019; 137:106024-106037.
5. Barney JB. Firm resources and sustained competitive advantage. Journal of Management. 1991; 17(1):99-120.
6. Barney JB, Hesterly WS. Strategic Management and Competitive Advantage: Concepts and Cases. 6th ed. New York: Pearson, 2019.
7. Banda J, Phiri T. Inventory management practices and operational performance in Zambia's FMCG sector. Zambia Business Review. 2021; 12(3):45-59.
8. Blanchard O. Macroeconomics. 7th ed. Boston: Pearson Education, 2016.
9. Braun V, Clarke V. Using thematic analysis in psychology. Qualitative Research in Psychology. 2006; 3(2):77-101.
10. Brusset X, Teller C. Supply chain capabilities, risks, and performance: A study in global manufacturing

firms. International Journal of Production Research. 2017; 55(1):208-225.
11. Chaffey D, Ellis-Chadwick F. Digital Marketing. 7th ed. Harlow: Pearson, 2019.
12. Chanda P, Lungu D. Logistics integration and operational efficiency in Zambian manufacturing firms. Journal of African Business. 2020; 21(2):125-142.
13. Chanda R, Lungu J. Supply Chain Management Challenges in Zambia's FMCG Sector. Lusaka: UNZA Press, 2020.
14. Chanda R, Tembo M. Procurement and logistics practices in Zambian manufacturing firms. Zambian Journal of Business Studies. 2018; 4(2):45-60.
15. Chibwe B, Zulu T. Digital technology adoption in Zambian manufacturing firms. Journal of African Business. 2022; 23(1):45-63.
16. Chikodzi D, Nyama G. External factors affecting supply chain performance in Sub-Saharan Africa, African Journal of Management Studies. 2020; 18(1):65-81.
17. Chikodzi D, Nyama G. Policy and regulatory challenges in African supply chains, African Journal of Logistics Management. 2020; 8(3):15-28.
18. Chikumbi E, Mwale C. Inventory management adaptations in Southern Africa, Journal of African Business. 2021; 22(4):501-519.
19. Christopher M. Logistics & Supply Chain Management. 5th ed. Harlow: Pearson Education, 2016.
20. Christopher M, Holweg M. Supply Chain 2.0: Managing Complexity and Risks, International Journal of Logistics Management. 2017; 28(2):469-482.
21. Chopra S, Meindl P. Supply Chain Management: Strategy, Planning, and Operation. 7th ed. Boston: Pearson, 2021.
22. Creswell JW. Research Design: Qualitative, Quantitative, and Mixed Methods Approaches. 4th edn. Thousand Oaks, CA: Sage, 2014.
23. Creswell JW, Plano Clark VL. Designing and Conducting Mixed Methods Research. 3rd edn. Thousand Oaks, CA: Sage, 2017.
24. Cousins P, Lawson B, Petersen K, Handfield R. Strategic supplier relationship management, Journal of Operations Management. 2019; 65(5):345-359.
25. Cousins P, Lawson B, Squire B. Strategic supplier collaboration and operational efficiency, International Journal of Operations & Production Management. 2019; 39(5):597-620.
26. Denzin N.K. The Research Act: A Theoretical Introduction to Sociological Methods. 2nd edn. New York: McGraw-Hill, 1978.
27. Etikan I, Musa SA, Alkassim RS. Comparison of convenience sampling and purposive sampling, American Journal of Theoretical and Applied Statistics. 2016; 5(1):1-4.
28. Fetters MD, Curry LA, Creswell JW. Achieving integration in mixed methods designs: Principles and practices, Health Services Research. 2013; 48(6):2134-2156.
29. Field A. Discovering Statistics Using IBM SPSS Statistics. 5th edn. London: Sage, 2018.
30. Flick U. An Introduction to Qualitative Research. 6th edn. London: Sage, 2018.
31. Gunasekaran A, Subramanian N, Rahman S. Sustainable supply chain management: Role of technology, International Journal of Production Economics. 2017; 193:206-218.
32. Guest G, Bunce A, Johnson L. How many interviews are enough? An experiment with data saturation and variability, Field Methods. 2006; 18(1):59-82.
33. Ivanov D. Viable supply chain model: Integrating disruptions, International Journal of Production Research. 2020; 58(10):2904-2915.
34. Johnson RB, Onwuegbuzie AJ. Mixed methods research: A research paradigm whose time has come, Educational Researcher. 2004; 33(7):14-26.
35. Kamble S, Gunasekaran A, Sharma R. Analysis of supply chain digitization, Computers & Industrial Engineering. 2018; 115:319-329.
36. Ketchen D, Hult G. Supply Chain Management: Strategy, Planning, and Operation. Boston: Pearson, 2007.
37. Ketchen D, Hult G. Bridging organization theory and supply chain management, Journal of Operations Management. 2007; 25(2):573-580.
38. Kothari CR. Research Methodology: Methods and Techniques. 2nd edn. New Delhi: New Age International Publishers, 2004.
39. Kumar R. Research Methodology: A Step-by-Step Guide for Beginners. 5th edn. London: Sage, 2019.
40. Kunda L, Mwansa P, Banda T. Technology adoption in Zambian FMCG firms, Zambian Journal of Management Studies. 2018; 7(1):12-29.
41. Kunda R, Mwansa P, Tembo F. Digital supply chain adoption in Zambian manufacturing, Lusaka Business Journal. 2018; 6(1):32-47.
42. Li S, Ragu-Nathan B, Ragu-Nathan T, Subba Rao S. The impact of supply chain management practices on competitive advantage, Omega. 2006; 34(2):107-124.
43. Makani J, Mbohwa C, Adeoti, J. Supply Chain Management Practices in Zambia: A Manufacturing Sector Perspective. Lusaka: University of Zambia Press, 2021.
44. Makani T, Phiri D, Simwaka K. Supplier management challenges in Zambia, African Journal of Business Management. 2021; 15(3):34-46.
45. Manuj I, Mentzer J. Global supply chain challenges and emerging markets, Journal of Supply Chain Management. 2008; 44(3):4-17.
46. Mentzer JT, DeWitt W, Keebler JS, Min S, Nix NW, Smith CD, *et al*. Defining supply chain management, Journal of Business Logistics. 2001; 22(2):1-25.
47. Melnyk S, Davis E, Spekman R, Sandor J. Outcome-driven supply chains, Journal of Operations Management. 2014; 32(7-8):560-575.
48. Mulenga H, Banda P. Operational efficiency through integrated SCM in Zambia, Zambian Journal of Industrial Management. 2020; 5(2):22-41.
49. Mulenga M, Banda S. Supply chain management practices in Zambia's FMCG sector, Lusaka: University of Zambia Press, 2020.
50. Munyeka W, Siwale D. Supply chain strategies in Southern Africa: Adaptation to infrastructure constraints, Journal of Southern African Studies. 2020; 46(4):599-615.
51. Munyaka T, Phiri F, Chisala B. Organizational culture and supply chain innovation, African Journal of Management. 2022; 10(1):101-117.
52. Mwansa K, Tembo A. Supply chain management and

operational efficiency in Zambian manufacturing firms, Journal of African Business Research. 2022; 8(2):45-61.
53. Mwansa P. Digital supply chain adoption in Zambia, Zambian Journal of Business Research. 2020; 6(1):15-29.
54. Mwansa P. Technology adoption and operational efficiency in Zambian manufacturing firms, African Journal of Technology Management, 2020; 14(2):45-59.
55. Mwansa P, Tembo D. Challenges of supply chain management in Zambian manufacturing firms, Zambia Journal of Business Studies. 2022; 10(2):45-60.
56. Mwansa P, Tembo F. Effect of supply chain management on operational performance in Sub-Saharan Africa, African Journal of Management. 2022; 18(2):121-138.
57. Mwansa P, Tembo F. Supply chain management practices and operational efficiency in Sub-Saharan Africa, African Journal of Management. 2022; 18(2):121-138.
58. Mwila T, Phiri J. Inventory management and operational efficiency in Zambian manufacturing, Lusaka: Zambia Business Review, 2019.
59. Narashimhan R, Nair A. Inventory management practices and firm performance, International Journal of Production Research. 2005; 43(16):3433-3450.
60. Ngoma M, Venter D. Infrastructure and logistics in Sub-Saharan Africa, International Journal of Logistics Management. 2019; 30(3):679-696.
61. Ngoma S, Venter R. Logistics constraints and operational efficiency in African supply chains, Journal of African Business. 2019; 20(3):230-247.
62. Paulraj A, Chen I, Flynn J. Strategic supply chain management and operational performance, Journal of Operations Management. 2008; 26(4):490-502.
63. Peteraf MA. The cornerstones of competitive advantage: A resource-based view, Strategic Management Journal. 1993; 14(3):179-191.
64. Phiri J, Ng'andu C. Inventory and logistics management in Zambian firms, International Journal of Supply Chain Management. 2021; 10(3):67-81.
65. Phiri T, Banda J, Mwansa P. Supply chain practices and operational efficiency in Zambian firms, Lusaka Journal of Business Studies. 2019; 11(2):55-71.
66. Phiri T, Mwale C, Simutanyi N. COVID-19 and supply chain resilience in Zambia, African Journal of Operations Research. 2021; 13(1):1-15.
67. Phiri Tl, Ng'andu L. Inventory management adaptations in Zambia, Zambian Journal of Logistics. 2021; 4(2):12-28.
68. Queiroz M, Ivanov D, Dolgui A, Fosso Wamba S. Impacts of epidemic outbreaks on supply chains, International Journal of Production Research. 2020; 58(10):2904-2915.
69. Rushton A, Croucher P, Baker P. The Handbook of Logistics and Distribution Management. 6th ed. London: Kogan Page, 2017.
70. Saunders M, Lewis P, Thornhill A. Research Methods for Business Students. 8th edn. Harlow: Pearson Education, 2019.
71. Simchi-Levi D, Kaminsky P, Simchi-Levi E. Designing and Managing the Supply Chain. 4th ed. New York: McGraw-Hill Education, 2020.
72. Simutanyi N, Mutambala L. Constraints to SCM benefits in Zambia, Zambian Journal of Industrial Studies. 2020; 6(1):30-44.
73. Teece DJ, Pisano G, Shuen A. Dynamic capabilities and strategic management, Strategic Management Journal. 1997; 18(7):509-533.
74. Tembo J, Simwaka K. Supplier reliability and operational performance in Zambia, Zambian Journal of Supply Chain Management. 2017; 3(2):55-68.
75. Tembo S, Simwaka K. Challenges in supplier relationship management in Zambia, African Journal of Business Research. 2017; 9(4):78-93.
76. Venkatesh V, Brown SA, Bala H. Bridging the qualitative-quantitative divide: Guidelines for conducting mixed methods research in information systems, MIS Quarterly. 2013; 37(1):21-54.
77. Wamba S, Akter S, Edwards A, Chopin G, Gnanzou D. Big data analytics in supply chain management, International Journal of Production Economics. 2020; 221:107-475.
78. Wamba S, Queiroz M, Akter S. Digital technologies in supply chains: Adoption barriers, International Journal of Production Research. 2020; 58(5):1501-1518.
79. Wang Y, Gunasekaran A, Ngai E, Papadopoulos T. Big data analytics in supply chain management, International Journal of Production Economics. 2016; 176:98-110.
80. Wernerfelt B. A resource-based view of the firm, Strategic Management Journal. 1984; 5(2):171-180.
81. Zhang D, Zhao X, Huo B. Supply chain flexibility and firm performance, International Journal of Production Economics. 2018; 197:1-10.
82. Zhang Y, Zhao X, Huang G. Digital supply chain practices and operational performance in emerging economies, International Journal of Production Economics. 2018; 204:25-37.
83. Zhang Z, Zhao X, Kumar A. Impact of integrated SCM on operational efficiency: A cross-industry analysis, International Journal of Production Research. 2018; 56(18):6125-6138.
84. Zhang Z, Zhao X, Kumar A. Supply chain flexibility and operational performance, International Journal of Production Research. 2018; 56(18):6125-6138.