

Strategic Procurement and Supply Disruption Management among Retail Outlets in Makurdi Metropolis, Nigeria

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Abstract

Frequent supply disruptions have continued to challenge the sustainability of retail outlets, particularly in developing countries like Nigeria. In Makurdi metropolis (Benue State), many retail businesses experience delays, stockouts, and inconsistent supplier performance, leading to customer dissatisfaction and financial losses. These persistent challenges highlight the need for effective procurement strategies that can enhance supply chain resilience and minimize disruption risks. This study examined the effect of strategic procurement strategies such as multiple sourcing, local sourcing, e-procurement, and entrenchment strategies on supply disruption management among retail outlets in Makurdi metropolis. A cross-sectional survey design was utilized, and primary data were gathered through structured questionnaires administered on 354 respondents. Data were analysed using SPSS and AMOS software through Structural Equation Modelling (SEM). The findings revealed that multiple sourcing and entrenchment strategies have strong positive effects on supply disruption management ($\beta = 0.31$ and $\beta = 0.52$, $p < 0.001$), while local sourcing and e-procurement showed weaker but significant positive effect ($\beta = 0.09$ and $\beta = 0.11$, $p < 0.05$). The results underscore the importance of supplier diversification and long-term supplier relationships in enhancing supply chain resilience. The study concludes that retail outlets should strategically combine procurement approaches, emphasizing supplier diversity and risk management, to mitigate the impact of supply disruptions. Recommendations include engaging broader supplier networks, investing in e-procurement systems, and adopting contingency planning to strengthen supply chain resilience.

Keywords: procurement strategies, supply disruption, e-procurement, retail management, Structural Equation Modelling.

Introduction

In today's dynamic socio-economic environment, businesses face persistent challenges in sustaining competitiveness. The ability of firms to anticipate, absorb, and recover from interruptions in their supply chains has become a critical determinant of business continuity. According to Olawore *et al* (2023), supply disruption is caused by several supply-demand, operational and environmental risks, which include among others, supplier relationships, quality issues, supplier production capacity restriction, policy shifts, technology and product design shifts, transport operations challenges and other logistical issues. In recent times, supply chain disruptions have led to significant financial losses, amounting to about 6–10% of annual revenue (Economist Intelligence Unit Report, 2020).

In recent times, there have been more than 80% of firms which have faced at least one major supply chain disruption around the world, resulting to huge financial losses (Howland, 2018). The outbreak of the COVID-19 pandemic further exposed the delicacy of world and regional retail supply chains (Gunawan *et al.*, 2024). Corroborating this assertion, Ifeyinwa and Chukwuebuka (2024) argued that in Nigeria, retail firms have faced peculiar challenges to supply disruptions

resilience, citing along with the recent COVID-19 pandemic, currency devaluations, transportation bottlenecks, and the inability to collaborate effectively with suppliers as the main reasons why retail outlets experience supply disruption. Retail outlets, which operate close to consumers, are particularly vulnerable because even short-term disruptions can lead to stockouts and reduced customer loyalty. In Nigeria in particular, retail outlets contend with supply disruptions and the resulting stockouts systematically affect retailers' ability to satisfy customers' needs (Adamu *et al*, 2025). Lack of knowledge to interpret and act on the supply chain disruptions, according to Ocicka *et al* (2022), is the most potent setback for retail outlets.

Effective procurement strategies such as local sourcing, global sourcing, and electronic procurement (Mawonde & Nyoni, 2021), along with approaches like diversification and entrenchment (Gheibi & Fay, 2020) are vital to managing supply disruptions that result from natural disasters, supplier failures, financial instability, or policy shifts. While world and national research has emphasized procurement strategies in manufacturing and large-scale industries (Durmaz, 2023; Adamu *et al*, 2025; Gheibi & Fay, 2021; Ifeyinwa & Chukwuebuka, 2024), limited attention has been given to provisions retail supply chains, particularly in Makurdi metropolis of Benue State. The study is convinced that this is an important gap in the literature since supply disruptions and the resulting stockouts can dramatically affect a retailer's ability to satisfy customers' groceries needs. This study, therefore, investigates the effectiveness of procurement strategies in managing supply disruptions among provision retail outlets in Makurdi metropolis, thereby contributing localized insights into procurement and supply chain resilience.

Literature Review

The literature pertaining procurement strategies in the retail supply chain sector has evolved significantly over time (Chowdhury, 2025), signifying the rising multifaceted nature of worldwide sourcing and the need for robust and lasting strategies amidst supply disruptions. This section carefully explores the key academic contributions relevant to strategic procurement and supply disruption management among retail outlets. The section begins with literature on supply disruption management and then delves into four specific procurement strategies: local sourcing, multiple sourcing, e-procurement, and entrenchment. Each variable draws on peer-reviewed journal articles and recently published systematic reviews.

Supply Disruption Management

Supply disruption broadly refers to the probability of distortion that can hinder an organization's ability to obtain required goods and services at the right time, cost, and quality. It is a multidimensional construct encompassing supply market volatility, delivery delays, compliance issues, and environmental and ethical breaches that are capable of distorting business operations due to lack of timely availability of goods and services (Shumank *et al.*, 2025). In the retail sector, strategic sourcing and procurement play a pivotal role in sustainability because the industry is exposed to price volatility, supply instability, and consumer preferences that continue to shift rapidly (Kamrul, 2024). Multifaceted procurement strategies, therefore, allow managers to deploy several strategies to avert the risk of supply disruption, such as multi-sourcing, dual sourcing, local sourcing, and international sourcing to avert supply risk, among other factors (Zheng *et al.*, 2020). Scholars opine that in the retail sector, supply risks such as untimely deliveries, insolvency of suppliers, shortage of raw materials, among others, specifically occur due to limited inventory practices (Sharma *et al.*, 2020).

Several research have indicated that firms that constantly incorporate procurement strategies in planning always outperform their competitors in times of crises, because they tend to more likely

have robust sourcing arrangements and trusted supplier networks (Khan & Aleem Al Razee, 2024; Kettunen *et al.*, 2010). In the retail sectors such as groceries, this is particularly significant, because delays in replacement directly impact on sales and inventory turnover (Shohel *et al.*, 2024; Karandikar *et al.*, 2007). Empirical studies such as the works of Chowdhury (2025) found that integration of supplier data in procurement significantly reduces reaction times to disruptions and help retail outlets to cope better during crises. Charwand *et al* (2017) also observed that cross-functional procurement teams are better prepared to manage supplier failures. Several studies also suggest vendor-managed inventory and joint contingency funding as the two most significant procurement risk-sharing mechanisms (Tonoy, 2022). Procurement strategies have emerged as vital frameworks to identify, assess, mitigate, and monitor risks across different supply channels (Ho *et al.*, 2015). This study focused on local sourcing, multiple sourcing, entrenchment and e-procurement, the four most used strategies by grocery retail outlets in Makurdi metropolis to manage supply disruption.

Multiple Sourcing

Multi-sourcing is a vital strategy in procurement risk management, particularly among retail supply chains highly susceptible to supplier failure disruptions (Fera *et al.*, 2017). It involves procuring the same goods from different suppliers, thereby reducing dependence on one source. This strategy enhances resilience and helps to mitigate disruption (Chen *et al.*, 2017). Multiple sourcing helps retailers to swiftly adapt to disruptions by quickly switching suppliers, as well as modifying order volumes (Wang *et al.*, 2022). To achieve flexibility in sourcing, retail outlets need to facilitate multi-sourcing arrangements and design strategies that allow substitution between suppliers or vendors (Nojavan *et al.*, 2015).

Empirical literature suggests that retail outlets with high sourcing flexibility stand a better chance to manage lead time variabilities, sustain service quality, and respond to evolving market conditions (Hatami *et al.*, 2009). Multiple sourcing has gained significance in the retail sector because of its minimal inventory levels and with quick product turnover (Charwand & Gitizadeh, 2020). Scholars contend that supply risks often stem from having too few suppliers and from geographic clustering, particularly in areas vulnerable to natural hazards or political instability (Badea *et al.*, 2014). The COVID-19 pandemic highlighted these weaknesses by revealing how fragile overly centralized sourcing structures are within the retail sector (Guillot *et al.*, 2023). Retailers with limited sourcing options have had to deal with severe stockouts, delays in delivery of products, and a reduction in customer satisfaction. On the other hand, those with multiple supplier bases are far more resilient (Namdar, 2017). Empirical studies contend that risk diversification through supplier diversification reduces risks associated with dependence on a particular supplier and improves procurement flexibility (Adamu *et al.*, 2025; Namdar *et al.*, 2017; Gabriel *et al.*, 2002).

Entrenchment

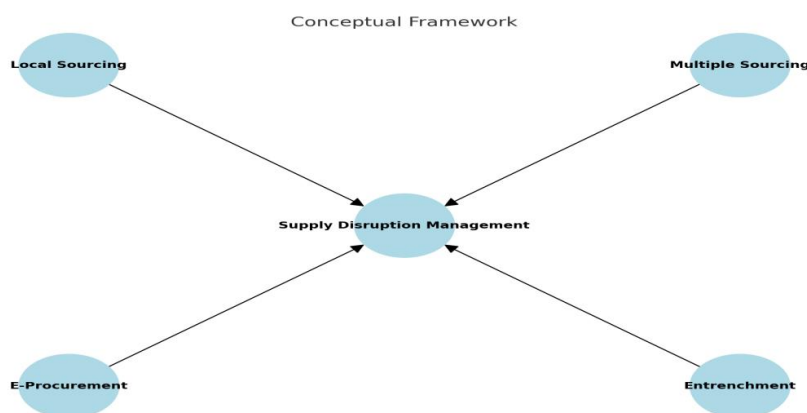
Entrenchment is an optimal strategy used when procurement costs are high and the difference in quality across products is relatively small (Gheibi & Fay, 2020). The basic idea behind this approach is based on the idea that multiple suppliers may be able to provide the same (or extremely similar) products but may differ in prices and/or reliability. Intuitively, Li *et al* (2014) demonstrates that the buyer has an incentive to utilize the lowest cost supplier, but may also procure products from a second, higher-cost supplier to reduce its risk. Guo, Zhao and Xu (2016) stresses that the entrenchment procurement strategy depends upon the source of supply uncertainty. Specifically, when supply risk is primarily due to supply disruptions (rather than

random yields), the buyer should order more from the regular supplier and reserve less capacity from the backup supplier. Nagurney (2021) tags this arrangement as one primary supplier and one backup supplier to balance cost-efficiency and risk. These approaches are especially valuable in high-volume retail categories like apparel, food, and electronics, where reliable supply is essential for maintaining competitive advantage (Lochan *et al.*, 2021).

Empirical research confirms that firms employing entrenchment sourcing strategies demonstrated greater resilience during COVID-19, as they were able to procure goods among different suppliers with varying costs without interrupting operations (Chen *et al.*, 2017). Managing procurement for a firm with two ordering opportunities has proven to be a successful strategy for retail outlets. Kelei *et al* (2018) argued that through the entrenchment strategy, the supplier's optimal production is derived and the firm's optimal procurement and replenishment strategies are achieved respectively. The findings of their study showed that under this strategy, the firm's procurement follows a threshold principle that helps them to mitigate supply disruption risk. Giannakis and Papadopoulos (2016) also note that the entrenchment strategy suffices for balancing risk and cost when demand fluctuates moderately and suppliers have different lead times.

E-Procurement

Electronic procurement is a strategy that is dependent on a specific information technology that involves the adoption of electronic technologies to fast track and facilitate procurements from sourcing suppliers to managing contracts and payments (Abubakar, 2024). Studies have shown that digital tools including supplier portals, AI-driven forecasting, and cloud-based procurement systems enhance sourcing flexibility by offering real-time visibility and improved decision support (Fera *et al.*, 2017). Scholars such as Garvey *et al* (2015) used the case study of retail giants such as Walmart and Amazon who adopted advanced digital procurement ecosystems showing how it helped reduce their procurement risks, automate key processes, and improve collaboration with suppliers. Sigore and Chege (2024) found that e-procurement and supplier relationship management significantly improved retail performance in Kenya. Mawonde and Nyoni (2021) discovered that Electronic Procurement and Multiple Sourcing had a positive effect on operational performance of organizations during the Covid-19 lockdown period in Zimbabwe.



Several businesses today form strategic partnerships with suppliers to address supply disruptions. The annual strategic procurement of Scottish (2022) points out that electronic procurement strategy permits an organization to provide its procurement activities, including better contract management and supplier management, cost minimization, as well as a broad perspective of how procurement approach supports its more general goals and objectives. The efficacy of electronic

procurement in building resilient supply chains is that it helps the operations of organizations as it bridges the geographical gap between procuring organizations and suppliers and thus helps to reduce procurement costs as well as supply disruptions (Van, 2019).

Research Gaps and Thematic Synthesis

While the literature extensively discusses procurement strategies as a strategic panacea to supply disruption, limited empirical evidence exists on which specific procurement strategies most effectively mitigate disruptions within retail supply chains particularly in the context of Makurdi metropolis in Benue State. Prior studies (Mawonde & Nyoni, 2021; Gheibi & Fay, 2020) highlight the importance of sourcing diversification and collaboration, yet gaps remain regarding how retail outlets in Makurdi apply these strategies and the extent to which they reduce disruption-related costs.

This study addresses this gap by examining procurement strategies and processes with the strongest potential to ensure continuity of supply flow of groceries within the retail sector. By identifying areas for improvement in procurement systems, the study provides insights for managers and procurement teams seeking to strengthen resilience, improve efficiency, and sustain operations without experiencing disruptions. The research also contributes to procurement and supply chain literature by providing context-specific evidence from an under-studied retail environment and establishing a foundation for further studies on procurement effectiveness in similar settings.

Model Specification

The study used Structural Equation Modelling (SEM) adopted from the work of Mawonde and Nyoni (2021), to examine the relationship between the study variables. The Statistical Package for Social Sciences (SPSS) version 22 and Analysis of Moment Structures (AMOS) version 23 software was used to calculate the correlation between constructs and to tabulate data. The model specification is specified as follows:

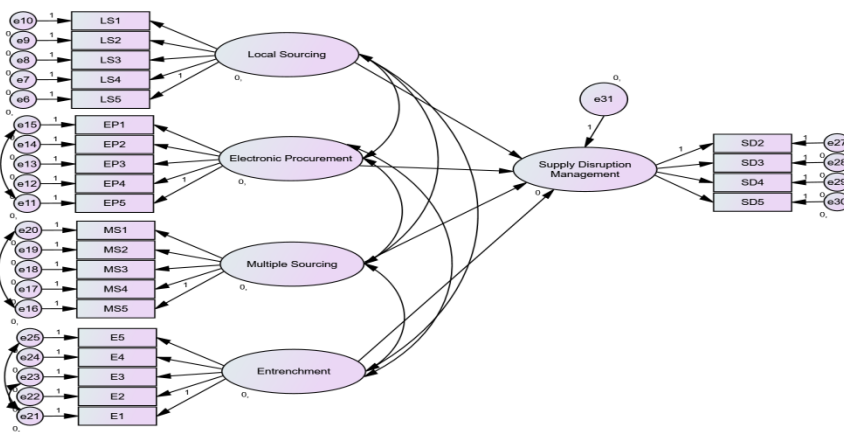


Figure 1. Model Specification Diagram.

Source: SPSS Amos Version 23

Methodology

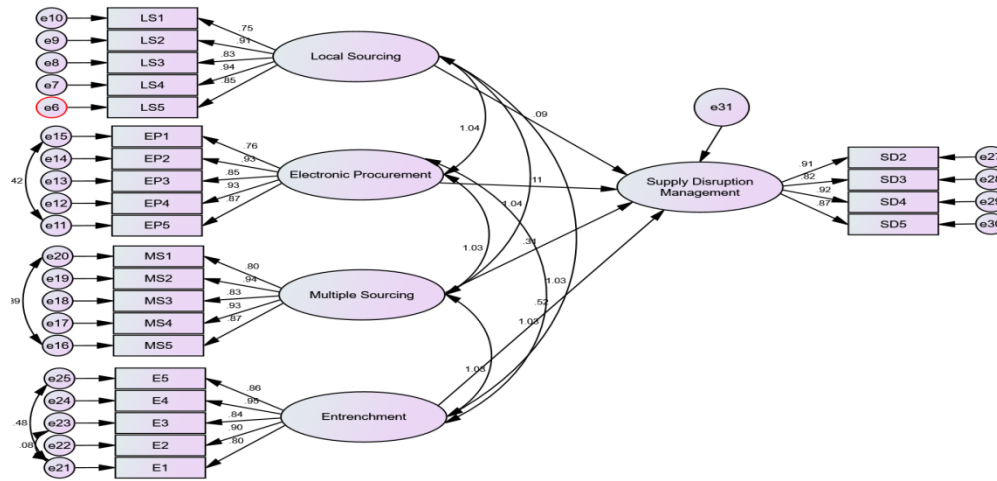
A cross-sectional survey design was adopted, targeting three procurement staff from each grocery retail outlet, yielding 354 respondents. Data was collected using structured questionnaires validated through expert review and pilot testing. Reliability was confirmed with Cronbach's alpha values above 0.70 (Local Sourcing; 0.827, Multiple Sourcing; 0.811, Electronic Procurement;

0.814, Entrenchment; 0.822). Data analysis employed Structural Equation Modelling (SEM) using SPSS and AMOS software to test relationships between procurement strategies and supply disruption management.

Results and Discussion

Results of the Structural Equation Model (SEM)

The SEM Amos result show the level of influence of procurement strategies on supply disruption. The model is assessed for testing the reliability, convergent validity, and discriminant validity.



Hypothesized Relationship	Standardized Estimate	95% CI Lower	95% CI Upper	p-value
SDM ← LS	0.09	-0.219	0.235	0.002
SDM ← EP	0.11	-0.503	0.301	0.009
SDM ← MS	0.31	0.101	1.113	0.000
SDM ← ET	0.52	0.264	1.044	0.000

Findings revealed that multiple sourcing ($\beta = 0.31$, $p < 0.001$) and entrenchment ($\beta = 0.52$, $p < 0.001$) have strong and positive influence on supply disruption management. However, local sourcing ($\beta = 0.09$, $p = 0.002$) and e-procurement ($\beta = 0.11$, $p = 0.01$) had weaker but positive effects. These results suggest that multiple sourcing and entrenchment play a crucial role in supply chain stability, fostering long-term supplier relationships, and ensuring consistent quality while minimizing supply chain risks. This aligns with Gheibi and Fay (2020) and Chavalala *et al* (2013) who emphasize entrenchment as a critical strategy under high uncertainty and corroborates findings by Mawonde and Nyoni (2021) and Christopher (2016) on the role of multiple sourcing in risk mitigation.

Conclusion

This study concludes that procurement strategies significantly affect supply disruption management in Makurdi retail outlets. Multiple sourcing and entrenchment provide the strongest safeguards, while local sourcing and e-procurement offer supplementary benefits.

Recommendations

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

- i. Retail managers should adopt a blended procurement approach, ensuring diversification, technological integration, and strong supplier relationships. Specifically, retail outlets should:
- ii. Prioritize Multiple Sourcing: retail managers should engage multiple suppliers and avoid dependence on a single supplier to reduce vulnerability to disruptions, ensure continuity of supply even during crises.
- iii. Strengthen Supplier Entrenchment: retail managers should build strong, long-term relationships with key suppliers. This will improve reliability, quality consistency, and responsiveness during uncertain conditions.
- iv. Optimize Local Sourcing: Although local sourcing showed a weaker effect, it still contributes positively. Retail outlets should therefore continue sourcing locally, especially for critical or time-sensitive supplies, while improving supplier capacity and reliability.
- v. Strengthen E-Procurement Systems: retail outlets should invest in e-procurement technologies to improve transparency, efficiency, and coordination in purchasing processes. Even with a weak effect, E-Procurement can streamline operations and support faster decision-making.

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