FINANCIAL HEALTH AND SMALL BUSINESS DEVELOPMENT IN CROSS RIVER STATE NIGERIA: DOES STRATEGIC INVENTORY MATTER?

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Abstract

This study investigates the nexus between strategic inventory management and the financial health of small businesses in Cross River State, Nigeria. Utilizing a cross-sectional survey design, primary data were collected from 300 small business owners across various sectors in Calabar Metropolis and other urban centers. The findings reveal a significant positive correlation between effective inventory management practices and financial performance, with businesses employing strategic inventory techniques reporting higher profitability and liquidity. Demographic analysis indicates that younger entrepreneurs and those with higher education levels are more likely to adopt advanced inventory practices. The study underscores the critical role of inventory optimization in mitigating financial distress and enhancing business sustainability in resource-constrained settings. Recommendations include targeted training programs on inventory management and policy support for small businesses to access affordable inventory management systems. These insights contribute to the discourse on small business development in developing economies, emphasizing the need for strategic operational practices to bolster financial resilience.

Keywords: Financial health, small business development, strategic inventory management.

Introduction

Small businesses are the backbone of economic development in many African economies, including Nigeria, where they account for approximately 70% of employment and contribute significantly to GDP (Akinniyi, 2019). In Cross River State, a region known for its tourism potential and agricultural productivity, small businesses play a pivotal role in fostering socioeconomic growth. However, these enterprises often grapple with financial distress, characterized by low profitability, poor cash flow, and high failure rates (Ukaidi et al., 2024). Strategic inventory management, which involves optimizing stock levels to balance cost and demand, has emerged as a critical factor in enhancing financial health and ensuring business sustainability (Akinniyi, 2019; Chopra & Meindl, 2016).

The financial health of small businesses is a multifaceted construct encompassing profitability, liquidity, and solvency, which collectively determine their ability to sustain operations and contribute to economic development (Habib et al., 2018). In Nigeria, small and medium enterprises (SMEs) face challenges such as inadequate access to finance, poor infrastructure, and inconsistent government policies, which exacerbate financial vulnerabilities (Akinniyi, 2019). Cross River State, despite its strategic economic positioning, is not immune to these challenges, with many small businesses struggling to maintain liquidity and profitability due to operational inefficiencies (Ukaidi et al., 2024).

\Recent literature highlights the importance of strategic inventory management in mitigating these challenges. Chopra and Meindl (2016) argue that effective inventory practices, such as just-in-time (JIT) systems and economic order quantity (EOQ) models, can reduce holding costs and improve cash flow. Similarly, a study by Olayinka and Mustapha (2022) found that inventory management significantly influences the financial performance of SMEs in Nigeria, particularly in urban centers like Lagos. However, there is a paucity of research focusing on Cross River State, where unique socioeconomic and demographic factors may influence the efficacy of inventory practices.

The adoption of strategic inventory management is often hindered by factors such as low technical know-how, limited access to technology, and cultural resistance to modern business practices (Akinniyi, 2019). In Cross River State, where many small businesses operate in the informal sector, these barriers are particularly pronounced (Ukaidi et al., 2024). Furthermore, demographic characteristics such as age, education, and gender of business owners may influence their propensity to adopt sophisticated inventory systems (Egenti & Okudo, 2024). This study seeks to fill this gap by examining whether strategic inventory management impacts the financial health of small businesses in Cross River State and exploring the role of demographic factors in this relationship.

Literature Review

The theoretical foundation of this study is anchored in the resource-based view (RBV) theory, which posits that a firm's competitive advantage stems from its ability to effectively manage its resources, including inventory (Barney, 1991). Strategic inventory management aligns with this theory by optimizing resource utilization to enhance financial performance. Empirical studies, such as those by Chopra and Meindl (2016), demonstrate that inventory practices like JIT and EOQ can reduce operational costs and improve liquidity, critical components of financial health.

In the Nigerian context, Akinniyi (2019) found that SMEs employing strategic management accounting techniques, including inventory control, were less likely to experience business failure. Similarly, Olayinka and Mustapha (2022) reported a positive correlation between inventory management and financial performance in Lagos-based SMEs, with effective stock control leading to a 15% increase in profitability. However, these studies primarily focus on urban centers in southwestern Nigeria, leaving a gap in understanding region-specific dynamics, such as those in Cross River State.

Globally, research underscores the importance of inventory management in small business sustainability. Sandvik and Sandvik (2003) found that market-oriented inventory practices enhance product innovativeness and financial performance. In contrast, poorly managed inventory can lead to overstocking or stockouts, both of which erode profitability (Chopra & Meindl, 2016). In Cross River State, where SMEs often operate with limited capital, such inefficiencies can precipitate financial distress (Ukaidi et al., 2024).

Demographic factors also play a significant role in inventory management adoption. Egenti and Okudo (2024) found that younger entrepreneurs and those with higher education levels are more

likely to embrace technology-driven inventory systems. Gender differences, however, remain underexplored, with mixed findings on whether male or female business owners are more adept at inventory management (Egenti & Okudo, 2024). This study builds on these insights to examine how demographic characteristics influence inventory practices and financial outcomes in Cross River State.

Methodology
Research Design
This study adopted a cross-sectional survey design to explore the relationship between strategic inventory management and financial health among small businesses in Cross River State. The design allowed for the collection of primary data at a single point in time, suitable for capturing current practices and their financial implications.

Population and Sample
The population comprised registered small business owners in Cross River State, estimated at 15,000 based on data from the Cross River State Ministry of Commerce and Industry (2024). A sample size of 300 was determined using the Krejcie and Morgan (1970) table, ensuring a 95% confidence level and a 5% margin of error. Stratified random sampling was employed to ensure representation across sectors (retail, agriculture, and services) and geographic areas (Calabar Metropolis, Ikom, and Ogoja).

Data Collection
Primary data were collected using a structured questionnaire administered to business owners. The questionnaire was divided into three sections: (1) demographic information (age, gender, education level), (2) inventory management practices (e.g., use of JIT, EOQ, or manual systems), and (3) financial health indicators (profitability, liquidity, and solvency). The instrument was pre-tested on 30 respondents to ensure reliability, yielding a Cronbach's alpha of 0.82. Data collection occurred between January and March 2025, with a response rate of 92% (276 completed questionnaires).

Data Analysis
Descriptive statistics (means, standard deviations) were used to summarize demographic characteristics and inventory practices. Pearson correlation analysis assessed the relationship between inventory management and financial health, while multiple regression analysis examined the influence of demographic factors. Data were analyzed using SPSS version 25.
Demographic Profile of Participants
Table 1 presents the demographic characteristics of the respondents.

Table 1
Demographic Profile of Respondents (N=276)

Variable	Category	Frequency	Percentage (%)
Age	18–30 years	90	32.6
	31–45 years	120	43.5
	46+ years	66	23.9
Gender	Male	160	58.0
	Female	116	42.0
Education Level	No formal education	30	10.9
	Primary education	50	18.1
	Secondary education	120	43.5
	Tertiary education	76	27.5
Business Sector	Retail	110	39.9
	Agriculture	80	29.0
	Services	86	31.2

The sample was predominantly male (58%) and aged 31–45 years (43.5%). Most respondents had secondary education (43.5%), reflecting the educational profile of small business owners in Cross River State.

Results

Inventory Management Practices
Table 2 summarizes the adoption of inventory management practices.

Table 2
Inventory Management Practices (N=276)

Practice	Frequency	Percentage (%)	Mean Score (1–5)

Just-in-Time (JIT)	60	21.7	2.8
Economic Order Quantity	45	16.3	2.5
Manual Tracking	150	54.3	3.9
Software-Based Systems	21	7.6	1.9

Manual tracking was the most common practice (54.3%), while software-based systems were least adopted (7.6%), likely due to cost and technical barriers.

Financial Health Indicators
Table 3 presents the financial health metrics.

Table 3
Financial Health Indicators (N=276)

Indicator	Mean Score (1–5)	Std. Deviation
Profitability	3.2	0.9
Liquidity	3.0	1.0
Solvency	2.9	0.8

Financial health was moderate, with profitability (M=3.2) slightly higher than liquidity (M=3.0) and solvency (M=2.9).

Correlation Analysis
Pearson correlation analysis revealed a significant positive relationship between strategic inventory management and financial health (r=0.68, p<0.01). Businesses using JIT and EOQ reported higher profitability (r=0.72, p<0.01) and liquidity (r=0.65, p<0.01) compared to those using manual systems.

Regression Analysis

Multiple regression analysis examined the influence of demographic factors on inventory management adoption. The model was significant ($F=12.45$, $p<0.001$, $R^2=0.42$), indicating that age ($\beta=0.31$, $p<0.05$) and education level ($\beta=0.38$, $p<0.01$) were significant predictors of inventory management adoption, while gender was not ($\beta=0.12$, $p=0.24$).

Discussion

The findings confirm that strategic inventory management significantly enhances the financial health of small businesses in Cross River State. Businesses employing JIT and EOQ practices reported better financial outcomes, aligning with Chopra and Meindl's (2016) assertion that inventory optimization reduces costs and improves cash flow. The low adoption of software-based systems (7.6%) reflects the technological and financial constraints faced by SMEs in Nigeria, as noted by Akinniyi (2019).

Demographic factors, particularly age and education, influence inventory management practices. Younger entrepreneurs and those with tertiary education were more likely to adopt advanced systems, supporting Egenti and Okudo's (2024) findings. The moderate financial health scores suggest that while some businesses are thriving, many still face liquidity and solvency challenges, consistent with Ukaidi et al. (2024).

Conclusion

Strategic inventory management is a critical driver of financial health and small business development in Cross River State. By optimizing stock levels, businesses can enhance profitability and liquidity, thereby contributing to economic growth. However, the low adoption of advanced inventory systems underscores the need for targeted interventions to address technical and financial barriers.

Recommendations

- Training Programs: Government and NGOs should implement training programs on modern inventory management techniques, focusing on JIT and EOQ, to enhance business owners' skills.
- Policy Support: Subsidies or grants for inventory management software could increase adoption, particularly among resource-constrained SMEs.
- Demographic-Targeted Interventions: Educational campaigns should target older and less-educated entrepreneurs to bridge the adoption gap.
- Further Research: Future studies should explore gender dynamics in inventory management and extend the research to rural areas of Cross River State.

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