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Evaluating the Impact of Cost Management Practices on the Competitive Advantage of SMEs: Evidence from Northeast Nigeria

Christiana Eziaha Ogbujah*[a], Husseini Abalaka Faruna[b], John Oluwademilade Adewumi[c], Angela Ugoji[d], Aisha Bello[e], Oluwafunmito Serah Balogun[f], Aishatu Sule Abu[g]

[a] Department of Agriculture Economics, Faculty of Agricultural Economics, Rural Sociology and Extension, Michael Opara University of Agriculture, Umudike, Abia State, Nigeria, E-mail: christianaogbujah@gmail.com

[b] Department of Business Administration, Faculty of Management Science, Salem University, Lokoja, Kogi State, Nigeria,
E-mail: Hussinifaruna@gmail.com ORCID ID: 0009-0006-5312-6768

[c] Department of Business Administration, Faculty of Management Science, Nasarawa State University, Keffi, Nasarawa State, Nigeria,
E-mail: johnny.adewumi@gmail.com

[d] Department of Business Administration, Weatherhead School of Management, Case Western Reserve University, Ohio, United States,
E-mail: ugojoangela@gmail.com

[e] Department of Business Administration, Weatherhead School of Management, Case Western Reserve University, Ohio, United States,
E-mail: aisha.bello@case.edu

[f] Department of Business Administration, Faculty of Management Science, University of Logos, Lagos State, Nigeria
E-mail: funmito1234@gmail.com ORCID ID: 0009-0000-2676-1957

[g] Department of Business Administration, Faculty of Management Science, Nasarawa State University, Keffi, Nasarawa State, Nigeria,
E-mail: ayiabu15@gmail.com

ABSTRACT

Small and Medium Enterprises (SMEs) are crucial drivers of economic development, employment, and innovation, particularly in emerging economies such as Nigeria. However, SMEs in Northeast Nigeria face persistent challenges in achieving a competitive advantage due to poor cost structures, financial constraints, and an unstable business environment. This study evaluates the impact of cost management practices on the competitive advantage of SMEs in Northeast Nigeria using primary data collected from 350 SME operators across six states. Employing a descriptive survey design, the study utilized structured questionnaires and interviews to examine the extent of cost management practices and their relationship with profitability, market share, and customer retention. The findings reveal that basic cost management tools, including budgeting, cost control, and break-even analysis, are widely used and have a significant positive impact on achieving a competitive advantage. However, advanced techniques like Activity-Based Costing and Lean Costing are rarely adopted. Regression analysis revealed that cost management practices account for over 50% of the variation in SME competitiveness. Significant challenges identified include low financial literacy, a lack of skilled personnel, and limited access to cost-related technologies. The study concludes that effective cost management is a strategic tool for SME competitiveness and recommends targeted capacity-building initiatives, policy support, and access to affordable accounting technologies to strengthen SME performance in the region.

Keywords: Cost management, Competitive advantage, SMEs, Northeast Nigeria, Budgeting, Profitability, Strategic cost control

1. INTRODUCTION

Small and Medium Enterprises (SMEs) have emerged as a crucial engine of economic growth and employment generation in both developing and developed economies. In Nigeria, SMEs make significant contributions to job creation, poverty reduction, and regional development (Ariyo, 1999; SMEDAN, 2021). However, despite their growing relevance, many SMEs struggle to achieve sustainable competitive advantage due to internal inefficiencies, particularly in the area of cost management.

Cost management refers to the processes and strategies that organizations implement to plan and control their budgeted and actual expenditures (Drury, 2004). For SMEs, efficient cost management is crucial to survival and long-term profitability, particularly in volatile business environments like Northeast Nigeria, where insecurity, infrastructural gaps, and inflationary pressures impact operational efficiency (Oladejo, 2014; Musa et al., 2022).

In an increasingly competitive market, SMEs must employ strategic cost management techniques to enhance productivity and deliver value to customers at lower costs. Techniques such as Activity-Based Costing (ABC), Lean Accounting, and Kaizen Costing have gained prominence globally for improving decision-making and resource allocation (Kaplan & Cooper, 1998; Horngren et al., 2012). When adopted effectively, such practices enable firms to identify waste, optimize operations, and position themselves competitively in the market.

Despite the documented benefits, evidence suggests that many Nigerian SMEs, particularly in the Northeastern region, either underutilize or lack awareness of cost management frameworks (Agwu, 2014; Mohammed & Ahmed, 2021). This limitation weakens their ability to compete with larger firms or imported products, particularly in sectors such as agriculture, light manufacturing, and retail.

This study seeks to evaluate the influence of cost management methods on the competitive advantage of SMEs in Northeast Nigeria. The research utilizes primary data from selected enterprises in the region to examine the correlation between cost strategies and key business performance indicators, such as profitability, market share, and customer retention.

1.1 Statement of the Problem

Although SMEs contribute to over 80% of employment and 50% of GDP in Nigeria (SMEDAN, 2021), their performance remains fragile due to financial mismanagement, lack of cost planning, and poor strategic alignment (Aremu & Adeyemi, 2011). In Northeast Nigeria, these problems are compounded by regional instability, rising input costs, and limited access to financial and technical resources.

Numerous studies have investigated the issues encountered by SMEs in Nigeria; however, there is a scarcity of empirical research analyzing the influence of cost management methods on competitiveness, especially in conflict-affected areas such as the Northeast (Okpara & Wynn, 2007; Ibrahim & Shariff, 2016). Furthermore, although cost control has been extensively examined in large enterprises, there is a lack of information regarding the implementation and benefits of these strategies in small and medium-sized enterprises within actual business contexts.

The question that remains unanswered mainly is: To what extent do cost management practices influence the competitive advantage of SMEs in Northeast Nigeria? This research aims to fill the knowledge gap by utilizing field data to provide policy-relevant insights and practical recommendations for the sustainability of SMEs in the region.

2. LITERATURE REVIEW

2.1 Conceptualization

2.1.1 Cost Management

Cost management refers to the planning and control of a business or project's budget. It involves activities related to estimating, allocating, and controlling costs to operate efficiently and achieve organizational objectives (Drury, 2004). In the SME context, cost management plays a pivotal role due to resource limitations, as effective cost strategies can prevent waste, improve pricing strategies, and enhance profitability (Horngren et al., 2012).

Cost management approaches encompass budgeting, standard costing, variance analysis, cost-volume-profit analysis, activity-based costing, and lean management. These instruments are not merely accounting methods but strategic frameworks for business decision-making (Kaplan & Cooper, 1998; Ojua & Ogbu, 2020).

2.1.2 Competitive Advantage

Competitive advantage refers to the attributes that enable a firm to outperform its competitors.

Porter (1990) posits that organisations attain competitive advantage via cost leadership, differentiation, or focus tactics. In small and medium-sized enterprises, particularly in emerging nations, cost leadership often represents the most achievable competitive advantage due to heightened market price sensitivity (Barney, 1991; Osuagwu, 2014).

Competitive advantage is evidenced by profitability, market share, innovative capacity, and consumer loyalty. For SMEs, employing cost-efficient operational strategies can enable the provision of affordable products or services while maintaining profitable margins (Oladejo, 2014; Musa et al., 2022).

2.1.3 SMEs in the Nigerian Economy

Small and Medium Enterprises (SMEs) constitute the foundation of the Nigerian Economy, representing over 96% of enterprises and employing over 84% of the labour force (SMEDAN, 2021). They engage in multiple areas, including agriculture, commerce, manufacturing, and services. Many SMEs encounter obstacles, including restricted access to financing, suboptimal cost structures, inefficient operations, and inadequate financial literacy (Ariyo, 1999; Okpara & Wynn, 2007).

2.2 Theoretical Framework

2.2.1 Resource-Based View (RBV)

The Resource-Based View (Barney, 1991) posits that a firm's internal resources when they are valued, scarce, inimitable, and non-substitutable can yield a persistent competitive advantage. Cost management capabilities, such as efficient budgeting systems or data-driven cost control, are internal competencies that differentiate successful SMEs from struggling ones.

2.2.2 Porter's Competitive Strategy Theory

Porter's (1990) theory delineates three generic tactics for achieving competitive advantage: cost leadership, differentiation, and focus. For SMEs with constrained resources, cost leadership offers a realistic pathway to market competitiveness. Firms that manage costs effectively can offer lower prices or maintain higher margins, both of which strengthen their market position (Porter, 1990).

2.2.3 Contingency Theory

Contingency theory asserts that there is no one-size-fits-all strategy for business success; instead, the effectiveness of management practices depends on situational variables (Donaldson, 2001). SMEs in Northeast Nigeria may adopt varying cost management practices based on size, sector, technology, or environment.

2.3 Empirical Review

Empirical research has demonstrated a significant correlation between effective cost management and corporate performance. For instance, Drury (2004) and Horngren et al. (2012) demonstrated that proper cost planning improves financial performance. Ojua and Ogbu (2020) found that SMEs that adopted budgeting and variance analysis reported higher levels of cost efficiency and productivity.

Aremu and Adeyemi (2011) observed that many Nigerian SMEs lack structured cost management systems, often due to poor accounting knowledge. Agwu (2014) highlighted that where proper cost control is practiced, there is a significant improvement in profit margins and resource utilization.

Kaplan and Cooper (1998) asserted that cost management transcends simply reducing costs; it involves understanding cost behavior and generating value. Small and medium-sized enterprises that effectively manage costs are more likely to retain consumers by offering competitive pricing and enhanced service delivery.

Ibrahim and Shariff (2016) identified a strong correlation between cost management strategies and market expansion in Malaysian SMEs, a finding corroborated by Osuagwu (2014) in Nigerian SMEs. Recently, Mohammed and Ahmed (2021) argued that even fundamental cost planning methodologies can substantially influence the viability of SMEs in volatile areas, such as Northeast Nigeria.

Several obstacles hinder effective cost management among SMEs in Nigeria, including a lack of a skilled workforce, weak internal control, high technology costs, and inadequate access to finance (Okpara & Wynn, 2007; Musa et al., 2022). Insecurity and irregular infrastructure further compound these challenges in Northeast Nigeria. Moreover, most SMEs operate informally, with limited or no use of accounting software or professional support, leading to poorly informed financial decisions (Ogujiuba et al., 2020).

3. METHODOLOGY

3.1 Research Design

This study employs a descriptive survey research design, which is suitable for gathering and analyzing data that delineate current practices and their impact on the competitiveness of SMEs. The study's design dictates the selection of this approach, which is based on primary data collected directly from respondents through structured questionnaires and interviews. It facilitates the acquisition of comprehensive, context-specific data regarding cost management strategies and their effects on SMEs in Northeast Nigeria (Creswell, 2014).

3.2 Study Population

The population of this study consists of registered SMEs operating in the six states of Northeast Nigeria: Adamawa, Bauchi, Borno, Gombe, Taraba, and Yobe. These SMEs operate in several areas, including manufacturing, agriculture, retail, and services, according to the most recent data from the Small and Medium Enterprises Development Agency of Nigeria (SMEDAN, 2021). The Northeast area has more than 15,000 registered SMEs.

3.3 Sample Size and Sampling Technique

A sample size of 384 participants was calculated utilising the Yamane (1967) formula:

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

Where:

n = sample size

N = population size (assumed at 15,000)

e = margin of error (0.05)

$n = \frac{15000}{1 + 15000(0.05)^2} \approx 384$

A stratified random sample technique was utilised to guarantee equitable representation. The SMEs were initially categorized by state and sector (manufacturing, services, agriculture, and retail), followed by the proportional selection of random samples. This guarantees that the sample accurately represents the varied attributes of SMEs throughout the region.

3.4 Sources and Methods of Data Collection

The research is exclusively based on primary data gathered through:

1. Structured Questionnaires: Designed to capture quantitative responses on the nature of cost management practices, challenges faced, and indicators of competitive advantage (profitability, customer retention, market share).

2. Semi-Structured Interviews: Conducted with a selected numbers of SME owners and managers to gain deeper insights into contextual challenges and strategic cost approaches.

The questionnaires were administered in person and electronically to ensure more exhaustive coverage. The items were developed based on themes from the literature and refined through a pilot test**.**

The data were collected, coded, and analyzed using the Statistical Package for the Social Sciences (SPSS) version 25. The following methods were employed:

Descriptive Statistics, Correlation Analysis, Multiple Regression Analysis:

Findings will be presented using tables and charts for clarity and ease of interpretation.

3.5 Research Instrument

The main research instrument was a structured questionnaire and interviews based on the following subheadings:

Section A: Demographic and business profile

Section B: Types and frequency of cost management practices

Section C: Performance indicators (profitability, market share, etc.)

Section D: Competitive advantage strategies and outcomes

Section E: Challenges in cost management implementation

4. RESULTS AND DISCUSSION

4.1 Response Rate of the 384 questionnaires distributed to SME owners and managers in Northeast Nigeria, 350 were returned and deemed legitimate for analysis, resulting in a response rate of 91.1%. The elevated response rate signifies robust representation and enhances the credibility of the results.

4.2 Demographic Profile of Respondents

Variable	**Category**	**Frequency**	**Percentage (%)**
Business Sector	Manufacturing	102	29.1
	Agriculture	85	24.3
	Retail/Trade	92	26.3
	Services	71	20.3
Years in Operation	Less than 4 years	48	13.7
	2–5 years	115	32.9

	6–10 years	127	36.3
	Over 10 years	60	17.1
Staff Strength	10–49 employees	221	63.1
	50–199 employees	29	36.9

This distribution suggests broad representation across sectors and firm sizes, enhancing the generalizability of the findings.

4.3 Cost Management Practices among SMEs

Respondents were requested to specify the degree of their utilisation of particular cost management approaches. The findings are encapsulated below:

Cost Management Practice	Mean Score	Interpretation
Budgeting	4.20	Frequently practiced
Cost Control & Monitoring	4.05	Frequently practiced
Variance Analysis	3.62	Moderately practiced
Activity-Based Costing	2.78	Rarely practiced
Break-Even Analysis	3.95	Frequently practiced
Lean/Kaizen Costing	2.55	Rarely practiced

These results show that basic cost management tools such as budgeting and cost control are commonly used, while more advanced tools like ABC and Lean Costing are less prevalent among SMEs in the region.

4.4 Impact of Cost Management on Competitive Advantage

A multiple regression analysis was performed to evaluate the influence of cost management on the performance of SMEs, with profitability, market share, and customer retention as dependent variables.

Regression Model Summary

Model Sig. (p-value)	R	R^2	Adjusted R^2	F-Statistic	Sig. (p-value)
Cost Practices	0.712	0.507	0.499	68.23	0.000

The model has statistical significance ($p < 0.01$), and the R^2 value of 0.507 signifies that roughly 50.7% of the variance in SME competitive performance is accounted for by cost management measures.

Coefficients Table

Variable	**Beta (β)**	**t-value**	**Sig. (p)**
Budgeting	0.344	5.213	0.000
Cost Control	0.287	4.823	0.000
Break-Even Analysis	0.215	3.745	0.000
Activity-Based Costing	0.072	1.226	0.221
Variance Analysis	0.105	2.017	0.045

This suggests that budgeting, cost control, and break-even analysis play a significant role in improving profitability and market competitiveness. ABC and variance analysis, although practical, are not yet statistically significant across most firms, possibly due to low adoption.

4.5 Challenges Faced in Implementing Cost Management

Respondents identified the following significant challenges:

1. Limited financial literacy (Mean = 4.25)

2. Lack of skilled personnel (Mean = 4.13)

3. High cost of adopting technology/software (Mean = 4.01)

4. Insecurity and regional instability (Mean = 3.88)

5. Resistance to change within management (Mean = 3.65)

These findings align with previous studies (Okpara & Wynn, 2007; Musa et al., 2022), which highlight systemic obstacles to efficient cost management among Nigerian SMEs, particularly in vulnerable regions.

4.6 Discussion of Findings

This study confirms that cost management practices have a significant and positive impact on the competitive advantage of SMEs in Northeast Nigeria. The widespread use of basic cost tools, such as budgeting and cost control, is contributing significantly to profitability and market competitiveness, aligning with the findings of Drury (2004), Agwu (2014), and Kaplan and Cooper (1998).

However, the limited application of advanced tools, such as Lean Costing indicates that capacity gaps still exist, possibly due to cost, a lack of awareness, or inadequate training. These tools, if integrated, could further enhance operational efficiency and long-term competitiveness.

5. CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion

Cost management is a vital mechanism through which SMEs in Northeast Nigeria can navigate the complex challenges of limited resources, competition, and economic uncertainty. This study has demonstrated that when SMEs implement structured cost practices, they improve their financial performance and market competitiveness.

However, the underutilization of advanced cost techniques and the prevalence of structural challenges suggest that policy support, training, and institutional interventions are crucial to fully realize the benefits of cost management.

Therefore, improving SME access to knowledge, tools, and affordable technologies for cost analysis should be a top priority for government agencies, SME associations, and development partners.

5.2 Recommendations

1. Capacity Building: Government agencies (e.g., SMEDAN), local chambers of commerce, and NGOs should organize regular training programs on cost management practices for SME owners and financial officers.

2. Subsidized Access to Technology: Provide affordable access to basic accounting and cost management software, especially for SMEs in remote and underserved areas.

3. Financial Literacy Campaigns: Launch awareness and educational campaigns focused on budgeting, break-even analysis, and strategic cost planning as tools for competitiveness.

4. Integration of Advanced Costing Tools: Encourage the adoption of Activity-Based Costing and Lean Costing among more mature SMEs through mentorship and technical assistance.

5. Security and Infrastructure Support: Strengthen public-private collaboration to improve the business environment in Northeast Nigeria through enhanced security and infrastructure development, thereby reducing the cost of doing business.

6. Inclusion in Policy Dialogue: SMEs in the region should be actively included in national policy discussions, particularly those related to MSME financing, taxation, and capacity development.

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