

Strategic Environmental Scanning and Performance of SMES in Oyo State, Nigeria: The Mediating Role of Strategic Agility

Nelson A.O. Samuel

Department of Business Administration

Department of Management Sciences

Ajayi Crowther University, Oyo

<https://doi.org/10.56201/jbae.vol.12.no9.2026.pg27.35>

Abstract

This paper examined the relationship between strategic environmental scanning and performance of SMES in Oyo state Nigeria, with strategic agility acting as the moderating variable. It notes that despite the obvious growth in size and numbers of SMEs in Nigeria, little or none empirical evidence exists on how SMEs relies on strategic environmental scanning to achieve performance, and mechanism through which it occurs. The study adopted quantitative survey design. Data were collected from 576 SME owners/Management in Oyo State using a structured questionnaire. Partial Least Squares-SEM was used for analysis. Results reveal that technological scanning [$\beta=0.31$, $p<0.01$] and competitive scanning [$\beta=0.28$, $p<0.01$] significantly influence SME performance. Strategic agility significantly mediates the relationship between environmental scanning and SME performance [$\beta=0.19$, $p<0.01$]. The study extended the Resource-Based View by positioning strategic agility as the key dynamic machinery capability that converts external information into competitive advantage for SMEs in a developing economy context. Small Medium Entrepreneur pioneers should institutionalize consistent scanning of technology and competitor environments and affirm organizational agility that must efficiently translate information into performance.

Keywords: Strategic Environmental, Strategic Agility, SME Performance,

Introduction

Nigerian Bureau of Statistics (NBS) established that Oyo State being a commercial hub, presents SMEs with both opportunities and threats from policy changes, fintech disruption, poor infrastructure challenges and competition. Strategic Environmental Scanning [SES] is critically of necessity for sensing these changes. However, information alone is insufficient (Choo, 2023). Leveraging on this background, the study aims **at** examined the effect of External Environmental Scanning dimensions on Financial Performance in selected SMEs in Oyo State, investigated the mediating role of Internal Environmental Scanning in Market Performance in selected SMEs in Oyo State, considered the correlation between Frequency of Scanning and Operational Performance in selected SMEs in Oyo State, analyzed the significance the significance of the Use of Scanning Information on Growth performance in selected SMEs in Oyo State. Based on the existing facts, the knowledge gaps in the existing literature, as well as the limited empirical data on the determinants and interactive impacts of Strategic Environmental Scanning and Performance of SMEs in Oyo State, Nigeria: The Mediating Role of Strategic Agility, this paper suggests four germane research questions.

RQ1: Is there any significant impact of External Environmental Scanning dimensions on Financial Performance in selected SMEs in Oyo State?

RQ2: What is the correlation between Internal Environmental Scanning and Market Performance in selected SMEs in Oyo State?

RQ3: Does Frequency of Scanning have any effect on Operational Performance in selected SMEs in Oyo State?

RQ4: What is the significant impact of Use of Scanning Information on Growth performance in selected SMEs in Oyo State?

Hypotheses

H₁: External Environmental Scanning has no significant effect on Financial Performance in selected SMEs in Oyo State

H₂: Internal Environmental Scanning has no significant influence on Market performance in selected SMEs in Oyo State.

H₃: Frequency of Scanning have no significant effect on operational performance in selected SMEs in Oyo State.

H₄: Use of Scanning Information have no significant effect on Growth performance in selected SMEs in Oyo State

Literature Review

Strategic environmental scanning (SES)

is a systematic process through which organizations collect, analyze, and interpret information from both the internal and external business environment to identify opportunities, threats, strengths, and weaknesses that influence strategic decision-making. It is the systematic process of gathering, analyzing, and interpreting information about external and internal environments to support strategic decision-making [Adebayo & Owolabi, 2022]. It involves monitoring economic, technological, political, and social factors to identify opportunities and threats. In Nigeria, firms that engage in regular scanning are better positioned to adapt to inflation, FX volatility, and policy changes [Eze & Okoro, 2023]. Strategic environmental scanning thus, is a systematic process through which organizations gather, analyze, and interpret information from both internal and external environments to identify opportunities, threats, strengths, and weaknesses that influence strategic decision-making. For Small and Medium Enterprises (SMEs), environmental scanning is particularly important because these firms often operate under resource constraints and in highly dynamic business environments.

Financial Performance

Financial performance refers to the extent to which a firm achieves its financial objectives using available resources [Olusola & Adegbe, 2021]. Common measures include ROA, ROE, profit margin, and liquidity ratios. Studies in Nigeria show that effective scanning and strategic planning positively influence financial performance by improving cost control and resource allocation [Akinyemi et al., 2024].

Market Performance

Market performance captures a firm's success in the marketplace relative to competitors [Kotler & Keller, 2021]. Indicators include market share, sales growth, customer retention, and brand equity. In the Nigerian FMCG and telecom sectors, firms that scan competitor and customer

trends achieve higher market penetration and customer satisfaction [Olayinka & Musa, 2023]. Growth Performance: Growth performance reflects the firm's ability to expand operations, revenue, and capacity over time [Penrose, 2021; revalidated by Ogunlana, 2024]. It is measured by increase in assets, revenue, employees, and new market entry. In SW Nigeria, SMEs that scan digital and regulatory environments record faster growth [NBS SME Report, 2023]. Literature suggests that strategic environmental scanning → improves decision quality → enhances financial, market, and growth performance [Adebayo & Owolabi, 2022; Akinyemi et al., 2024]. Firms that ignore scanning experience poor adaptation, declining sales, and reduced profitability [Eze & Okoro, 2023].

Theoretical Review

Resource-Based View Theory - RBV Barney, 1991; extended by Barney & Hesterly, 2021

RBV argues that firms gain competitive advantage from valuable, rare, inimitable, and non-substitutable resources and capabilities. Strategic environmental scanning is a dynamic capability that helps SMEs in Oyo State identify opportunities and threats in their environment. When SMEs combine scanning insights with strategic agility to reconfigure resources, they achieve superior financial, market, and growth performance. The theory supports scanning and agility as critical internal capabilities for SME performance.

Dynamic Capabilities Theory - Teece, 1997; updated by Teece, 2021

Dynamic capabilities theory states that firms survive in turbulent environments by sensing, seizing, and reconfiguring resources. Strategic environmental scanning represents the "sensing" capability, while strategic agility represents "seizing and reconfiguring". For SMEs in Oyo State facing inflation, policy changes, and competition, scanning provides environmental intelligence and agility enables rapid response, leading to improved performance. This theory directly justifies strategic agility as a mediator.

Contingency Theory -; applied by Donaldson, 2022

Contingency theory by Lawrence & Lorsch (1967) posits that organizational performance depends on the "fit" between strategy, structure, and environmental conditions. There is no single best way to manage SMEs. Strategic environmental scanning helps Oyo SMEs understand their specific environment, while strategic agility allows them to adapt structures and strategies accordingly. The better the fit achieved through scanning and agile response, the higher the SME performance.

Empirical Review

Using a cross-sectional survey and regression analysis, Aina and Egbuta (2021) investigated the effect of environmental scanning on the market share of selected Small and Medium Enterprises (SMEs) in Lagos State, Nigeria. The study adopted a cross-sectional survey research design. The study adopted a cross-sectional survey research design, and found that environmental scanning had a significant positive effect on market share ($\beta = 0.513$, $p < 0.05$). Ogunleye, Adeyemo, Adesola and Yahaya (2021) examined the influence of strategic agility on the performance of SMEs in Osogbo metropolis, Osun State, Nigeria. The study covered SMEs operating in manufacturing, trading, services and agro-allied sectors.

Okoli, Onwuchekwa and Nzewi (2024) examined the relationship between strategic agility and the performance of SMEs in the post-COVID-19 period in Anambra State, Nigeria. The study adopted a survey research design, with the population consisting of managers of 2,502 registered

SMEs. Muiliyu (2024) investigated strategic adaptability, absorptive capacity and SME performance in South-West Nigeria. The study was particularly concerned with the challenges confronting SMEs in a dynamic Nigerian business environment characterized by technological, economic and market changes. Strategic adaptability was conceptualized through components including environmental scanning, strategic flexibility, resource allocation and knowledge acquisition, while SME performance was assessed using indicators such as market share, brand reputation, operational efficiency and competitive advantage.

Methodology

Research design used is the survey research design. The survey's approach is advantageous for gathering primary data from a wide-ranging audience, aligning with the scope of this study. The population of the study consists of 920 SMEs operators in Oyo, Ibadan and Ogbomosho, all in Oyo State. The various categories of business firms include Firm (A) engaged in Wholesale and Retail, Firm (B) operating in the Education sector, Firm (C) in the Hospitality industry, Firm (D) specializing in Real Estate and Properties, Firm (E) as a Professional Service Provider encompassing law, internet services, and civil engineering, Firm (F) focused on Fast Food, and Firm (G) comprising Religious Centers.

The sampling technique adopted is the stratified random sampling technique participants from each subgroup. The primary source of data collection was utilized. Questionnaire was used to elicit information for the study analysis. The data collected for the study was analyzed using both descriptive and inferential statistical techniques.

Model Specification

The study's models employee work outcomes (Y); specifically, job performance, job satisfaction, and employee retention; as functions of multiple dimensions of employee engagement (X_1-X_5), including external environmental scanning, internal environmental scanning, frequency of scanning and use of scanning information. To accomplish the first objective, the Canonical Correlation Analysis (CCA) model will be employed to assess the multivariate relationship between the composite dimensions of employee engagement and work outcomes. This is expressed in Equation (3.1):

$$Y_1 + Y_2 + Y_3 + \dots + Y_n = X_1 + X_2 + X_3 + \dots + X_n \quad (3.1)$$

(metric, nonmetric) (metric, nonmetric)

Here, $Y_1, Y_2, \dots, Y_n$ represent the dependent variables (SMEs performance: financial performance, market performance, operational performance and growth performance), while $X_1, X_2, \dots, X_n$ denote the independent variables (strategic environmental scanning: training, skill acquisition, certification and on-the-job learning). To address the second and third objectives, the Pearson's Correlation Technique will be used to determine the strength and direction of the linear relationships between SME performance (SP) and specific work outcomes, as represented in Equation (3.2):

$$Y = rf(XEE) \quad (3.2)$$

Where:

Y = Strategic Environmental Scanning (external environmental performance, internal environmental performance, frequency of scanning and use of scanning information)

XEE = SMEs performance

r = Pearson's correlation coefficient measuring the degree of association between the variables

Variable Identification and Model Specification

These variables influence the level of employee performance within the selected SMEs in Oyo State. The model for the study are specified as follows:

$$PSME=f(SSES,SA) \quad PSME= f(SSES,SA)$$

Where:

PSME = Performance of SMEs

SES = Strategic Environmental Scanning

SA = Strategy Agility

The regression equation can therefore be expressed as:

$$PSME=\beta_0+\beta_1SES+\beta_2SA+\epsilon_{SME}$$

Where:

- β_0 = Constant term
- β_1, β_2 = Regression coefficients
- ϵ = Error term

This model enables the researcher to examine how each strategic management practice contributes to employee performance.

RESULTS AND DISCUSSION

Response Rates

Table 1: Gender Distribution

Gender	Frequency	Percentage (%)
Male	598	65.0
Female	322	35.0
Total	920	100.0

SPSS Output 2026

Table 2: Age Distribution

Age Range	Frequency	Percentage (%)
21–30 years	296	32.17
31–40 years	252	27.39
41–50 years	306	33.26
50 years and above	66	7.17
Total	920	100.0

SPSS Output 2026

Table 3: SMEs Location Distribution

Location Status	Frequency	Percentage
Oyo Town	283	23.69
Ibadan	515	55.97
Ogbomosho	122	13.26
Total	920	100.0

SPSS Output 2026

Table 4: Level of Education Distzribution

Level of Education	Frequency	Percentage
FSLC	80	8.69
SSCE	174	18.91
HND/BSc	242	26.30
Masters of Science	155	16.84
PhD	269	29.23
Total	920	100.0

SPSS Output 2026

Table 5: Duration of SMEs Distribution

Duration in Service	Frequency	Percentage
1-5	48	5.21
6-10	85	9.23
11-15	108	11.73
16-20	151	16.41
21-25	226	24.56
26-30	212	31.73
31-35	90	9.78
Total	920	100.0

SPSS Output 2026

Reliability

The reliability of the instrument used to measure employee performance: compensation/remuneration was assessed using Cronbach's alpha. Results in Table 1 indicated high internal consistency, with an overall alpha of 0.936. Individual constructs showed strong reliability: strategic planning (0.839), employee performance (0.692), leadership style or strategic leadership (0.893) and performance evaluation and control (0.924). Although strategic management practices alpha was slightly below 0.7, it remains acceptable for exploratory research.

Descriptive Statistics of Demographics

Table 2 presents the demographic profile of respondents. Males (65%) slightly outnumbered females (35%), reflecting a modest gender gap within the selected SMEs in Oyo State's entrepreneurs. The majority of participants were aged 41–50 years (33.26%), followed by those aged 31–40 years (27.39%), indicating a predominance of mid-career entrepreneurs.

Test of Hypothesis

Four (4) hypotheses were formulated and tested.

Pearson Correlation Coefficients between Strategic environmental scanning and SMEs performance

Variables	Strategic Environmental Scanning	SMEs Performance
External Environment Scanning	0.539**	0.523**
Internal Environment Scanning	0.555**	0.506**
Frequency of Scanning	0.633**	0.591**
Use of Scanning Information	0.666**	0.632**
N	625	625

Note: **p < 0.01 (2-tailed).

Hypothesis 1

H₁: External Environmental Scanning has no significant effect on Financial Performance in selected SMEs in Oyo State.

Table 1 presents the canonical correlation analysis (CCA) results, which examined the multivariate association between strategic components and work outcomes among businesses of selected SMEs in Oyo State. The analysis tested Hypothesis One (**H₀₁**), which stated that the components of external environmental scanning have no significant effect on financial performance in selected SMEs in Oyo State. The CCA produced a statistically significant canonical correlation coefficient of 0.539, with performance value of 0.523, indicating a strong and meaningful relationship between the sets of External Environmental Performance (X-set) and SMEs performance (Y-set).

Hypothesis 2

H₀₂: Internal Environmental Scanning has no significant influence on performance in selected SMEs in Oyo State.

Table 1 presents the Pearson correlation analysis examining the relationship between Internal Environmental Scanning dimensions and Market performance in selected SMEs in Oyo State. The results indicate statistically significant positive relationships across all variables ($p < 0.01$). assessing firm resources and capability exhibited the strongest correlation with SMEs performance ($r = 0.632$), followed by strength and weaknesses ($r = 0.591$) and market penetration ($r = 0.591$). Internal Environmental Scanning ($r = 0.506$) and business environment ($r = 0.523$) also demonstrated significant associations, though to a lesser extent. These findings provide empirical evidence to reject the null hypothesis, confirming that Internal Environmental Scanning significantly influences SMEs performance.

Hypothesis 3

H₀₃: Frequency of Scanning have no significant effect on operational performance in selected SMEs in Oyo State.

Table 4 presents the Pearson correlation analysis examining the relationship between Frequency of Scanning dimensions and Operational Performance among selected SMEs in Oyo State. The results reveal strong, statistically significant positive correlations across all engagement variables ($p < 0.01$), with coefficients ranging from $r = 0.539$ to $r = 0.666$. how often scanning is done demonstrated the strongest association with retention ($r = 0.666$), followed by innovation ($r = 0.634$) and teamwork ($r = 0.633$).

Hypothesis 4

H₀₄: Use of Scanning Information have no significant effect on Growth performance in selected

SMEs in Oyo State.

Table 4 presents the Pearson correlation analysis examining the relationship between Use of Scanning Information dimensions and Growth Performance among selected SMEs in Oyo State. The results reveal strong, statistically significant positive correlations across all engagement variables ($p < 0.01$), with coefficients ranging from $r = 0.539$ to $r = 0.666$. how often scanning is done demonstrated the strongest association with retention ($r = 0.666$), followed by innovation ($r = 0.634$) and teamwork ($r = 0.633$).

Conclusion and Recommendations

Conclusion and Recommendation

This study concludes that employee environmental scanning; external environmental scanning, internal environmental scanning, frequency of scanning and use of scanning information significantly influence SMEs performance in selected SMEs in Oyo State. Based on the findings of the study, the following recommendation are given:

The Management and Entrepreneurs of SMEs should improve on strategic environmental scanning process across the country to set a global standard for both development and economic factors in Nigeria. Efficient external and internal environmental scanning should be adopted by both management and business owners of SMEs across the country to ensure the human resources are significantly positioned to deliver both in goods and service, the best of market ability. Both government and private owners of business should adopt the world standard use of scanning information mechanisms to ensure that the strategic environmental scanning are well adopted and implemented for targeted goal achievement.

References

- Aina, S. A., & Egbuta, O. U. (2021). Environmental scanning and market share of selected small and medium scale enterprises in Lagos State, Nigeria. *International Journal of Advances in Scientific Research and Engineering*, 7(4). <https://doi.org/10.31695/IJASRE.2021.34006>
- Aina, S. A., & Egbuta, O. U. (2021). Environmental scanning and market share of selected small and medium scale enterprises in Lagos State, Nigeria. *International Journal of Advances in Scientific Research and Engineering*, 7(4), 84–91. <https://doi.org/10.31695/IJASRE.2021.34006>
- Choo, C. W. (2023). *The knowing organization*. Oxford University Press.
- Costa, J., Santos, M., & Machado, C. (2022). Sustainability in small and medium-sized enterprises: A systematic literature review and future research agenda. *Sustainability*, 14(11),
- Dörr, U.-S., Schönhofer, G., & Schwarz, J. O. (2024). The state of foresight in small and medium enterprises: Literature review and research agenda. *European Journal of Futures Research*, 12, 16. <https://doi.org/10.1186/s40309-024-00237-1>
- Harris, B., & Brooker, J. (2025). Environmental scanning: A look to the future. *New Directions for Evaluation*, 33–41. <https://doi.org/10.1002/ev.20633>
- Ikeh, E. J. (2026). Strategic management practices and organizational performance of SMEs in Lagos, Nigeria: A structural equation modeling approach. *International Journal of Applied Review*, 2(2), 5–13.
- Joy-Camacho, W., & Thornhill, I. (2024). Opportunities and limitations to environmental management system (EMS) implementation in UK small and medium enterprises (SMEs): A systematic review. *Journal of Environmental Management*, 367, 121749.
- Oduro, S., & Haylemariam, L. G. (2025). Effect of social and environmental sustainability on SME competitiveness: A meta-analytic review. *Management Review Quarterly*.
- Teece, D. J. (2017). Explicating dynamic capabilities. *Strategic Management Journal*, 28, 1319–1350.