EFFECT OF ENVIRONMENTAL SCANNING ON PERFORMANCE OF SMALL AND MEDIUM SCALE ENTERPRISES IN MAKURDI METROPOLIS, BENUE STATE NIGERIA

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ABSTRACT

The study examined the effect of environmental scanning on performance of Small and Medium Enterprises in Makurdi Metropolis, Benue State, Nigeria. The population consisted of 502 SMEs, and a sample of 223 SMEs was selected using simple random sampling. Data were collected through a structured questionnaire, with reliability confirmed through Cronbach's Alpha values ranging from 0.797 to 0.863. Logit regression analysis was applied to evaluate the effects of environmental scanning. The results indicated that political and legal scanning (PLS) positively influenced market share with an odds ratio of 3.645, but had a weak, statistically insignificant relationship with sales growth (Exp(B) = 0.736). Competitive scanning (CPS) had a minor positive effect on market share (Exp(B) = 1.128) but a significant negative impact on sales growth (Exp(B) = 0.177). Technology scanning (TCS) showed a positive and significant relationship with market share (Exp(B) = 2.738) and a moderate positive effect on sales growth (Exp(B) = 1.383). Societal scanning (SOS) had a significant positive relationship with sales growth (Exp(B) = 5.216) but no significant effect on market share (Exp(B) = 0.922). The study concludes that while political, legal, and technological scanning are important for improving market share and sales growth, societal scanning contributes more significantly to sales growth than to market share. It recommends integrating technological and societal insights into strategies, minimizing overemphasis on competitors, and investing in managerial training for better strategic decision-making.

Keywords: *Environmental Scanning, Small and Medium Enterprises (SMEs), Market Share, Sales Growth, Logit Regression Analysis*

1.0 INTRODUCTION

Small and medium-sized enterprises (SMEs) are globally recognised as engines of economic growth, employment creation, and innovation, with performance commonly measured through market share and sales growth (YahiaMarzouk & Jin, 2022a). A growing body of evidence shows that SMEs must engage in environmental scanning to remain competitive, systematically monitoring political, legal, technological, competitive, and societal trends that shape business opportunities and risks. Globally, such scanning supports organisational resilience and strategic responsiveness (Choo, 2001), while in Africa it has been associated with improved market positioning and adaptability in highly volatile environments (Karimi, 2022; YahiaMarzouk & Jin, 2022b). Evidence from Kenya and Egypt demonstrates that environmental scanning significantly enhances SME performance by strengthening innovation, resilience, and strategic alignment with market dynamics.

Within Nigeria, SMEs represent over 90 percent of all businesses and play a central role in employment and economic diversification (Adegbite & Ayodele, 2019). However, they face substantial challenges including poor infrastructure, regulatory inconsistencies, and limited access to finance (Oyewobi & Ogundana, 2019). Studies in Lagos and Oyo States reveal that political, economic, and technological scanning has strong positive effects on SME performance and innovation (Olayiwola & Akeke, 2017; Ologbenla, 2022). In Benue State, particularly Makurdi Metropolis, SMEs significantly contribute to household income and local development but struggle with capital constraints, weak planning, and intense competition, creating a turbulent business environment that limits growth (Adamu, 2019; Mile, Ijirshar & Ijirshar, 2022).

Despite the demonstrated importance of environmental scanning, empirical research within Makurdi remains scarce, leaving a critical gap in understanding its influence on SME outcomes. Drawing on Aguilar's (1967) PEST framework, this study operationalises environmental scanning across four dimensions political/legal, competitive, technological, and societal scanning and examines their effects on sales growth and market share. Prior studies in Egypt, Kenya, and Nigeria consistently show that scanning enhances organisational agility and performance (Karimi, 2022; YahiaMarzouk & Jin, 2022b; Sawyerr, 1993). Given Makurdi's unique socio-economic conditions, this research aims to provide evidence-based insights to guide SME owners, managers, and policymakers in adopting effective scanning strategies that strengthen resilience and promote sustainable growth in the region's competitive business environment.

STATEMENT OF THE PROBLEM

Small and medium enterprises (SMEs) in competitive business environments are expected to engage in proactive environmental scanning to identify opportunities, mitigate threats, and adapt strategies for sustained growth. Ideally, systematic scanning across technological, economic, political, and socio-cultural domains provides timely information for strategic decision-making, leading to improved market positioning, innovation, and overall performance (Aguilar, 1967; Choo, 2001). However, in many developing economies like Nigeria, SMEs often fail to engage in structured scanning, relying instead on informal, irregular, and reactive methods. This lack of systematic environmental scanning results in missed opportunities, poor strategic alignment, and increased vulnerability to environmental shocks such as policy changes, market disruptions, or technological shifts, contributing to low competitiveness, high SME mortality rates, and stunted growth (Oyewobi & Ogundana, 2019).

Empirical studies across various countries highlight the positive relationship between environmental scanning and SME performance. Research in the United States, Bulgaria, Kenya, and Egypt confirms that SMEs with structured scanning processes experience better sales growth, improved market responsiveness, enhanced profitability, and competitive advantage (Beal, 2000; Elenkov, 1997; Karimi, 2022; YahiaMarzouk & Jin, 2022a). However, gaps remain in the literature, particularly in developing countries where the scope and dimensions of environmental scanning in SMEs are often underexplored. Existing studies in Nigeria have shown positive associations with SME performance but often lack causal analysis or fail to comprehensively address socio-cultural and technological dimensions of scanning (Olayiwola & Akeke, 2017; Ologbenla, 2022). This study aims to fill these gaps by adopting a multi-dimensional approach to environmental scanning and employing robust statistical techniques to examine its impact on SME performance in Makurdi, Benue State, where environmental volatility and market uncertainties necessitate proactive scanning for survival and growth. On the basis of this, the following research questions are formulated to guide the study:

i. What is the effect of Political and Legal Scanning on Market Share of SMEs in Makurdi Metropolis, Benue State, Nigeria?
Ii. What is the effect of Competitive Scanning on Market Share of SMEs in Makurdi Metropolis, Benue State, Nigeria?
iii. What is the effect of Technology Scanning on Market Share of SMEs in Makurdi Metropolis, Benue State, Nigeria?
iv. What is the effect of Societal Scanning on Market Share of SMEs in Makurdi Metropolis, Benue State, Nigeria?
v. What is the effect of Political and Legal Scanning on sales growth of SMEs in Makurdi Metropolis, Benue State, Nigeria?
vi. What is the effect of Competitive Scanning on sales growth of SMEs in Makurdi Metropolis, Benue State, Nigeria?
vii. What is the effect of Technology Scanning on sales growth of SMEs in Makurdi Metropolis, Benue State, Nigeria?
viii. What is the effect of Societal Scanning on sales growth of SMEs in Makurdi Metropolis, Benue State, Nigeria?

The objectives of the study and hypotheses are formulated in line with the research questions to guide the study.

2.0 LITERATURE REVIEW

This section is made the review of theoretical framework, the conceptual framework, the review of related empirical studies and summary of literature reviewed.

Theoretical Framework

The theoretical framework for this study draws on two key theories: the Scanning Process Theory and the Interpretation Theory. The Scanning Process Theory, proposed by Aguilar (1967), outlines a six-step process for environmental scanning: sensing, screening, storing, disseminating, using, and feedback. This process emphasizes the importance of systematically gathering, analyzing, and applying information about the external environment to make informed decisions. The theory suggests that organizations engage in both data acquisition, where they collect information about industry trends, competitor actions, and regulatory changes, and data interpretation, where they analyze this information to identify patterns, trends, and potential opportunities or threats. The simultaneous use of both bottom-up and top-down processing is crucial for organizations to adapt to changing environments and make strategic decisions that align with their goals.

The Interpretation Theory, proposed by Daft and Weick (1984), focuses on how individuals within an organization interpret their surroundings based on their cognitive frameworks, shaped by personal experiences, values, and social interactions. This theory emphasizes that environmental scanning is not just about collecting information but about how managers make sense of that information and the biases that influence their interpretations. Key concepts such as enacted environment, sensemaking, and retrospective sensemaking highlight the subjective nature of interpretation. This theory also underscores the importance of social construction and communication in shaping shared understandings of the environment. The relevance of the Scanning Process Theory to this study is particularly strong, as it provides a structured approach for businesses to gather and use environmental information effectively, helping them stay competitive by making informed decisions based on up-to-date market trends.

CONCEPTUAL FRAMEWORK
ENVIRONMENTAL SCANNING

The theoretical framework for this study draws on two key theories: the Scanning Process Theory and the Interpretation Theory. The Scanning Process Theory, proposed by Aguilar (1967), outlines a six-step process for environmental scanning: sensing, screening, storing, disseminating, using, and feedback. This process emphasizes the importance of systematically gathering, analyzing, and applying information about the external environment to make informed decisions. The theory suggests that organizations engage in both data acquisition, where they collect information about industry trends, competitor actions, and regulatory changes, and data interpretation, where they analyze this information to identify patterns, trends, and potential opportunities or threats. The Interpretation Theory, proposed by Daft and Weick (1984), focuses on how individuals within an organization interpret their surroundings based on their cognitive frameworks, shaped by personal experiences, values, and social interactions. The relevance of the Scanning Process Theory to this study is particularly strong, as it provides a structured approach for businesses to gather and use environmental information effectively, helping them stay competitive by making informed decisions based on up-to-date market trends.

DIMENSIONS OF ENVIRONMENTAL SCANNING

In this study, environmental scanning is operationalized into four constructs namely; political and legal scanning, competitive scanning, technological scanning and societal scanning. This is represented diagrammatically in figure one and explained in subsequent sections.
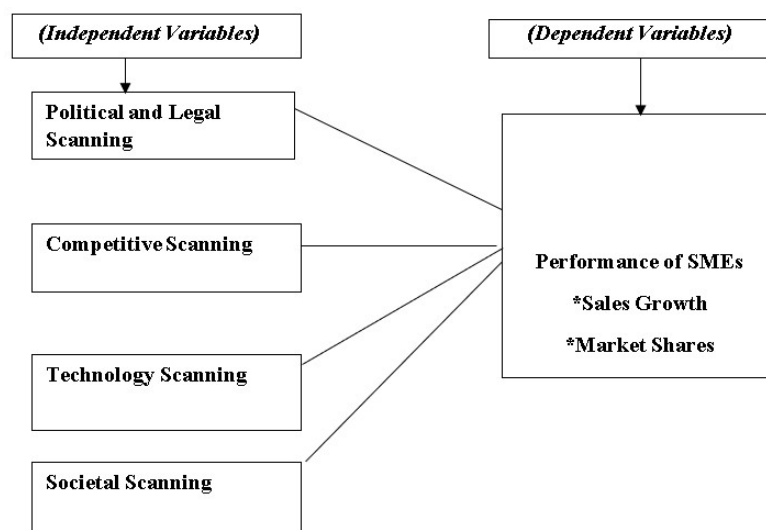

Figure 1: Schematic diagram of the Study

Source: Etzioni, A. (1967). "Mixed-Scanning: A 'Third' Approach to Decision-Making." Public Administration Review, 27(5), 385–392.

One of the early influential works in the field of environmental scanning is often attributed to Igor Ansoff and was published in 1965. Ansoff's work laid the groundwork for strategic management and environmental analysis. Subsequent scholars such as Etzioni, A. (1967), Aguilar (1967), Morrison, (1992) and Teece (2007) have expanded upon these concepts, introducing various dimensions and measures of environmental scanning, which may include external, competitive, technological, and societal scanning.

CONCEPT OF SMALL AND MEDIUM SCALE ENTERPRISES

Small and Medium Scale Enterprises (SMEs) are defined across jurisdictions using quantitative thresholds such as number of employees, turnover, and asset base. In contrast, Nigerian definitions vary: the National Council of Industry (2003) sets thresholds whereby small enterprises have 11–35 employees and cost between ₦1 million and under ₦40 million (excluding land), and medium enterprises employ 36–100 workers with total cost from ₦40 million to under ₦200 million. In addition, the Central Bank of Nigeria under its SMEEIS program (2005) defines SMEs as entities with maximum asset base of ₦200 million (excluding land and working capital), regardless of staff size. Saudi variations such as those from Adedeji and Olubodun (2018) set SME asset base between ₦5 million and ₦500 million, with workforce between 11 and 300 (Turn0search3).

CONCEPT OF PERFORMANCE OF SMALL AND MEDIUM ENTERPRISES

Performance of SMEs is conceptualized as the ability of the enterprise to fulfil customer demand while being effective, attaining the desired ends at a minimal cost (Mumbe & Njuguna, 2019). The performance of SMEs is a vital factor because it can influence not only the growth of the SMEs but also the overall economic growth of the country. In this regard, Rao (2018) argued that performance is a crucial concept that determines an SME's ability to survive, grow, and compete in the market. Environmental factors that may influence business performance are many and varied; some are internal to the business while others are external (Salihu, 2015). Empirical evidence from Nigeria shows that government policies and entrepreneurial orientation significantly shape SME performance, either enhancing or constraining their survival and growth potential (Adamu, 2020).

DIMENSIONS OF PERFORMANCE OF SMES
a) Sales Growth

According to a report by Investopedia (2021), sales growth is a measure of a company's success and potential for future success. It is a vital metric used to determine a company's financial stability and value. As noted by Izzo and Mankin (2019), sales growth can be achieved through a variety of methods such as expanding product lines, entering new markets, or improving marketing strategies. Sales growth refers to the amount a company derives from sales compared to a previous corresponding period of time in which the later sales exceed the former. It is usually given as a percentage. Sales growth is considered positive for a company's survival and profitability.

b) Market Shares

Market share is a commonly used metric in business to measure a company or product's relative strength in a given market compared to its competitors. According to Kotler and Keller (2016), market share is the percentage of an industry's total sales that is earned by a particular company over a specified time period. Market shares mean shares of the actual sales (either in quantity sold or naira volume) for a product in a given period and in a given geographical area. It is a percentage of a market (defined in terms of either units or revenue) accounted for by a specific entity (Scott and Kesten, 2017).

REVIEW OF RELATED EMPIRICAL STUDIES

Blaique, Abu-Salim, Asad Mir and Omahony (2024) examined the impact of social and organisational capital on service innovation capability during COVID-19: the mediating role of strategic environmental scanning among service firms in the United Arab Emirates (UAE) during the COVID-19 pandemic. To test the proposed research model, data were collected using a cross-sectional questionnaire. The study sample consisted of 188 private and public service sector managers in the UAE. Partial least square-based structural equation modelling (PLS-SEM) was used to examine the research model's validity and reliability and to test the research hypothesis. The empirical evidence indicates that during this pandemic the relationship between social capital and service innovation capability was fully mediated by strategic environmental scanning, while partially mediating the relationship between organisational capital and service innovation capability.

Okwemba and Njuguna (2021) examined the effect of environmental scanning on performance of Chemelil Sugar Company in Kisumu County, Kenya. The study was anchored on open system theory. The research adopted a descriptive research design. The target population was 60. The study focused on the heads of departments as the key respondents. The research instruments used in the study were questionnaires. The study conducted a census because the population size was small and for accuracy. The study applied purposive sampling technique. It was found that environmental scanning is positively and significantly related to performance. The results of regression analysis established that environmental scanning is positively and significantly related to performance (β=.840, p =.035). Thus, a unit increase in environmental scanning practices while holding all other factors constant, increases performance by 0.840 units.

Chen et al. (2020) conducted a study on the effect of environmental scanning on the performance of SMEs in China. The researchers collected data from 387 SMEs in various industries, using a questionnaire survey method. Multiple regression analysis was used to test the hypothesis that environmental scanning positively influences SME performance. The results

showed that environmental scanning had a significant positive effect on SMEs' financial and non-financial performance. The study also found that environmental scanning contributed to improving the performance of SMEs in China, especially those operating in highly competitive industries and those with larger scale operations. The limitation of this empirical study lies in its low sample size. China is too large to use the sample size of 387 SMEs to make a generalization based on the result of the study.

Khoirunisa et al., (2020) examined the impact of environmental scanning on the competitive advantage of small and medium-sized enterprises (SMEs) in Indonesia. The study employed a survey of 140 SMEs in the manufacturing sector in East Java province and uses regression analysis to analyze the data. The findings indicate that environmental scanning positively affects the competitive advantage of SMEs. Specifically, the study found that the scanning of technological, economic, and competitive factors were significant predictors of competitive advantage. The study also found that SMEs that prioritized environmental scanning enhanced their competitive advantage. Khoirunisa et al. (2020) effectively used a survey and regression analysis to investigate how environmental scanning impacts SMEs' competitive advantage in East Java.

Huan et al., (2019) investigated the relationship between environmental scanning and firm performance in the context of Malaysian SMEs. The study used a quantitative approach and collected data from 255 SMEs through a survey questionnaire. The results of the study showed that environmental scanning has a positive effect on firm performance, indicating that SMEs that engage in environmental scanning activities are more likely to perform better than those that do not. Additionally, the study found that market scanning and competitive scanning were the most significant predictors of firm performance among the different types of environmental scanning activities. The findings of the study have important implications for SMEs in Malaysia, as they suggest that investing in environmental scanning activities can be beneficial for improving firm performance.

Yanai and Cohendet (2019) explored the relationship between environmental scanning and innovation performance of small and medium-sized enterprises (SMEs) in Canada. The study uses survey data from a sample of 308 Canadian SMEs and employs regression analysis to test the relationship between environmental scanning and innovation performance. The results suggest that environmental scanning positively influences innovation performance, particularly in terms of new product development and process improvement. The study also finds that the effect of environmental scanning on innovation performance is stronger for SMEs that are more market-oriented and have a higher level of innovation capability. The study also found that SMEs in Canada can benefit from investing in environmental scanning activities to enhance their technology and innovation performance, societal performance and competitiveness.

Zayed and Tarhini (2018) conducted a study to investigate the effect of environmental scanning on the strategic agility and performance of small and medium-sized enterprises (SMEs) in the United Arab Emirates (UAE). The study used a quantitative research design, and data was collected from 150 SMEs operating in the UAE. The results of the study showed that environmental scanning has a significant positive effect on the strategic agility and performance of SMEs in the UAE. The findings suggest that SMEs that engage in environmental scanning are more likely to be agile in response to changes in the business environment and achieve better performance outcomes. Zayed and Tarhini (2018) conducted a study to investigate the effect of environmental scanning on the strategic agility and performance of small and medium-sized enterprises (SMEs) in the United Arab Emirates (UAE).

3.0 METHODOLOGY
STUDY DESIGN
The researcher adopts the survey research design in this research work. The choice of the survey research design for this research is justified in view on fact that the population of this study is spread over a wide geographical area thus necessitating the use of the sampling technique, questionnaires.

THE STUDY AREA
The study is limited to the effect of environmental scanning and performance of SMEs in Metropolis. Makurdi is the capital of the Benue state, Nigeria. Makurdi is located in the Middle Belt along the Benue River. In 2007, Makurdi had an estimated population of 500,797.

POPULATION OF THE STUDY
Five hundred and two (502) Small and Medium Enterprises (SMEs) constitute the population of this study (Ministry of Commerce and Industry, 2021). The element of the population are the managers and owners of the Small and Medium Enterprises (See Appendix II).

SAMPLE AND SAMPLING TECHNIQUES
SAMPLE
In this study, the list of registered SMEs from the State Ministry of Commerce and Industries was obtained from its office in Makurdi. This list guided the researcher in the process of identifying SMEs located in the areas. The sample size for this research was determined quantitatively using the 1969 Taro Yamane formula:

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

Where N = population

n = sample size

e = … error

Therefore: N = **502**

e = 5%

$$n = \frac{502}{1+502(0.05)^2}$$

$$n = \frac{502}{1+502(0.05)^2} = \frac{502}{2.255} =$$

$n = 223$

The sample size for the study is two hundred and twenty-three (223) operators of Small and Medium Enterprise in Makurdi, Benue State.

SAMPLING TECHNIQUES

In this study, simple random sampling was used to select two hundred and twenty three (223) registered operators of small and medium enterprise in Makurdi Metropolis.

INSTRUMENTS FOR DATA COLLECTION

The major instrument for data collection is a structured questionnaire. A questionnaire is designed to extract specific information. Four point scales rating measure of strongly agreed (SA) agreed (A), Disagreed (D) and strongly disagreed (SD) questions was employed in the questionnaire.

VALIDATION OF THE INSTRUMENT

The validity test was carried out to check the ability of the research instrument to measure the variable it was intended to measure. Both content and construct validity was employed. While content validity was tested through the expert contributions from my supervisors and other experts in the field, construct validity was tested with the use of factor analytical tool that considered Kaiser-Meyer-Olkin (KMO) and Bartlett's Test of Sphericity. To establish the validity of the instrument, a pilot study was carried out with thirty percent of the total sample of the study and the result of the pilot study was subjected to exploratory factor analysis as presented the following tables.

Table 1: Kaiser-Meyer-Olkin and Bartlett's test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.938
Bartlett's Test of Sphericity	Approx. Chi-Square	12.644
	df	10
	Sig.	.012

Source: SPSS Output, 2025

The KMO statistic ranges from 0 to 1, where higher values indicate better suitability for factor analysis. A KMO value of 0.938, which is close to 1, suggests that the variables in your dataset are highly suitable for factor analysis. In other words, the data have a high degree of common variance, supporting the idea that there are underlying factors that can be extracted. Bartlett's Test assesses whether the correlation matrix between variables is significantly different from the identity matrix, which would indicate that variables are unrelated. The chi-square value (Approx. Chi-Square) of 12.644 with 10 degrees of freedom and a significance level (Sig.) of .012 indicates that the observed correlation matrix is significantly different from an identity matrix. This supports the idea that there are relationships among variables, providing further evidence in favor of conducting factor analysis.

Table 2: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1.614	32.281	32.281	1.614	32.281	32.281	1.534	30.687	30.687
2	1.260	25.207	57.488	1.260	25.207	57.488	1.287	25.732	56.419
3	1.177	23.537	81.025	1.177	23.537	81.025	1.230	24.606	81.025
4	.650	13.003	94.029						

5	.299	5.971	100.000						
Extraction Method: Principal Component Analysis.									

Source: SPSS Output, 2025

Total Variance Explained (TVE) is a measure of how much of the variance in the observed data is accounted for by the latent constructs or factors. A higher TVE indicates that the model is a better fit to the data, and that the latent constructs are more strongly related to the observed variables. In the context of instrument validity, TVE can be used to assess the extent to which the instrument measures the constructs it is intended to measure. A high TVE suggests that the instrument is capturing a significant portion of the variance in the constructs, and that the items on the instrument are measuring the same underlying construct. The cumulative percentage of variance explained for the first three components is particularly relevant, as it stands at 81.025%. This means that these three components collectively capture over 80% of the total variability in the data. It's noteworthy that the initial eigenvalues and the extraction sums of squared loadings contribute to this explanation. For instance, the initial eigenvalue for the first component is 1.614, representing 32.281% of the variance. Such high percentages indicate that the extracted factors are influential in explaining the observed patterns in the dataset. All constructs must be retained for statistical analysis. Each component considerably augments the variance explained percentage.

RELIABILITY OF INSTRUMENT

Table 3: Reliability Statistics

S/No	Variables	Cronbach's Alpha
1.	Performance of SMEs (PRF)	0.860
2.	Political and Legal Scanning (PLS)	0.863
3.	Competitive Scanning(CPS)	0.839
4.	Technology Scanning(TCS)	0.797
5.	Societal Scanning(SOS)	0.851
Overall Cronbach		**0.842**

Source: SPSS Output, 2025

Table 3 present Cronbach's Alpha reliability statistics for various variables related to the effect of environmental scanning and performance of SMEs in Makurdi Metropolis. Cronbach's Alpha is a measure of internal consistency, indicating how closely related a set of items or variables are as a group. In this context, the high Cronbach's Alpha values for each variable suggest strong internal consistency within each construct. Specifically, the Performance of SMEs (PRF), Political and Legal Scanning (PLS), Competitive Scanning (CPS), Technology Scanning (TCS), and Societal Scanning (SOS) variables demonstrate high reliability with Cronbach's Alpha coefficients of 0.860, 0.863, 0.839, 0.797, and 0.851, respectively.

MODEL SPECIFICATION

Guided by the nexus between the variables of the study, a functional relationship is established between them. As shown below, the implicit form of the model is shown as:

$\{Logit\}(PRF) = f(EXS, PLS, TCS, SOS)$

Where,

PRF = Performance of SMEs (Proxied by Market share (MKS) and Sales Growth (SGT)
PLS = Political and Legal Scanning
CPS = Competitive Scanning
TCS = Technology Scanning
SOS = Societal Scanning

In explicit Logit Form

$$\ln \frac{(PRF)}{(1-PRF)} = \beta_0 + \beta_1 PLS + \beta_2 CPS + \beta_3 TCS + \beta_4 SOS + \mu t \qquad 2$$

Where:

$\ln \frac{(PRF)}{(1-PRF)}$ = natural log of odds of SME performance (success vs. non-success)

β_0 = Regression Intercept

$\beta_1, \beta_2, \beta_3, \beta_4$ = Regression Coefficients

μt = Error Terms

A priori Expectation

$\beta_1 > \beta_2 > 0$, $\beta_3 > 0$, β_4 = Regression Coefficients

DATA ANALYSIS TECHNIQUES

Various statistical methods Will be used in analyzing this study: percentages, frequency and tables will be used to examine the respondents' bio-data and other research objectives. Logit regression model will be used to evaluate the effect of the independent variables on the dependent variables of the study. The probability of the estimate will be used to test the four (4) hypotheses for this study. The following decision rules were adopted for accepting or rejecting hypotheses: *If the probability value of b_i [p (b_i) > critical value] we accept the null hypothesis, that is, we accept that the estimate b_i is not statistically significant at the 5% level of significance otherwise reject the null hypothesis. The data for the study was collated, coded using binary code of agreement = 1 and disagreement = 0 and analyzed using computer- based statistical Package for Social Sciences (SPSS version 26.0 for Microsoft Windows).

4.0 RESULTS AND DISCUSSION OF FINDINGS
PRESENTATION OF THE LOGIT REGRESSION RESULTS

This section presents the results of the logit regression analysis, highlighting key findings and their significance. It delves into the implications of these results for the study, offering insights into how the data supports or challenges the hypotheses. The discussion also connects the findings to existing literature and potential practical applications. This section presents the result of model I and II. We start with Model I.

Table 13: Omnibus Tests of Model Coefficients Model I

		Chi-square	df	Sig.
Step 1	Step	21.126	4	.017
	Block	21.126	4	.017
	Model	21.126	4	.017

MODEL II: SALE GROWTH

		Chi-square	df	Sig.
Step 1	Step	11.202	4	.024
	Block	11.202	4	.024
	Model	11.202	4	.024

Source: SPSS Result, Version 26.0

Legend: PRF = Performance of SMEs (Proxied by Sales Growth (SGT) Market Share (MKS), PLS = Political and Legal Scanning, CPS = Competitive Scanning, TCS = Technology Scanning, SOS = Societal Scanning

The Omnibus Tests of Model Coefficients in Table 13 show a Chi-square value of 21.126 with 4 degrees of freedom and a significance level of 0.017. Since the p-value (0.017) is less than the 0.05 threshold, the null hypothesis that the model with only the intercept fits as well as the model with the predictors is rejected. This indicates that the inclusion of the independent variables, Political and Legal Scanning (PLS), Competitive Scanning (CPS), Technology Scanning (TCS), and Societal Scanning (SOS), significantly improves the model's ability to predict the performance of SMEs (PRF). The implication is that environmental scanning dimensions collectively exert a statistically significant influence on SME performance, justifying the model's adequacy and further analysis of individual variable effects.

Table 18 shows the Omnibus Tests of Model Coefficients, which assess the overall significance of the logistic regression model predicting sales growth (SGT). The chi-square value of 11.202 with 4 degrees of freedom and a significance level of 0.024 indicates that the inclusion of the independent variables, political and legal scanning (PLS), competitive scanning (CPS), technological scanning (TCS), and societal scanning (SOS), significantly improves the model compared to one with no predictors. Since the p-value is less than 0.05, the null hypothesis that all coefficients are simultaneously equal to zero is rejected. This confirms that at least one of the scanning variables contributes meaningfully to explaining variations in SME sales growth. The implication for the study is that environmental scanning, particularly these four dimensions, plays a statistically significant role in enhancing the performance of small and medium-sized enterprises, highlighting the importance of proactive monitoring of the business environment for competitive advantage and sustainable growth.

Table 14: Variables in the Equation: Dependent variable: Market share

		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B)	
								Lower	Upper
Step 1a	PLS	.498	.109	4.567	1	.002	3.645	.738	3.665
	CPS	.121	.177	.463	1	.496	1.128	.797	1.597
	TCS	.553	.212	2.608	1	.018	2.738	.775	3.897
	SOS	-.081	.177	.211	1	.646	.922	.652	1.304
	Constant	.499	.963	.269	1	.604	1.648		

Table19: Variables in the Equation Model II

		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B)	
								Lower	Upper
Step 1a	PLS	-.307	.180	2.904	1	.088	.736	.517	1.047
	CPS	-1.733	.564	9.444	1	.002	.177	.059	.534
	TCS	.324	.178	3.323	1	.068	1.383	.976	1.960
	SOS	1.652	.461	12.846	1	.000	5.216	2.114	12.871
	Const	.235	.968	.059	1	.808	1.265		
a. Variable(s) entered on step 1: PLS, CPS, TCS, SOS.									

Source: SPSS Result, Version 26.0

I. EFFECT OF POLITICAL AND LEGAL SCANNING ON MARKET SHARE AND SALES GROWTH OF SMES IN MAKURDI METROPOLIS, BENUE STATE, NIGERIA

The findings of the current study suggest that political and legal scanning (PLS) positively influences market share but has a weak, negative relationship with sales growth. This aligns with previous studies that also emphasize the role of environmental scanning in enhancing competitiveness. For instance, Blaique et al. (2024) found that environmental scanning mediates the relationship between organizational capital and innovation capability, particularly in the context of the COVID-19 pandemic. This supports the notion that understanding political and legal environments can provide SMEs with a competitive advantage, enabling them to navigate changing regulatory landscapes effectively. However, similar to the current study, Okwemba and Njuguna (2021) observed that while environmental scanning enhances organizational performance, its effect on sales can be less direct, possibly due to external factors such as market volatility and policy uncertainty.

However, the weak negative relationship between PLS and sales growth found in this study diverges from the more positive effects observed in other research. For example, Chen et al. (2020) found that environmental scanning positively impacted financial and non-financial performance for SMEs in China, especially those in competitive industries. This discrepancy may be due to regional differences, such as in Nigeria, where political instability and bureaucratic inefficiencies could limit the benefits of political and legal awareness. The novelty in the current study lies in highlighting the dual nature of political and legal scanning, where it benefits market share but does not necessarily lead to immediate sales growth, an insight that previous studies have overlooked.

II. EFFECT OF COMPETITIVE SCANNING ON MARKET SHARE AND SALES GROWTH OF SMES IN MAKURDI METROPOLIS, BENUE STATE, NIGERIA

The results for competitive scanning (CPS) reveal mixed outcomes, with a minor positive effect on market share and a significant inverse relationship with sales growth. This is consistent with earlier studies that suggest the impact of competitive scanning on SMEs can vary significantly based on how effectively the information is utilized. For example, Huan et al. (2019) identified that market and competitive scanning were key predictors of firm performance, yet they highlighted the need for SMEs to adapt competitive intelligence into actionable strategies. The finding in the current study that competitive scanning does not significantly affect market share could be attributed to ineffective use of the gathered intelligence, as observed by Dembele (2024), who found that strategic environmental scanning was useful in mitigating risks but often failed to drive significant growth if not aligned with changing consumer behavior.

Moreover, the study highlights that excessive focus on competitive scanning can lead to a reactive rather than proactive approach, potentially stifling innovation. This finding is echoed in the work of Khoirunisa et al. (2020), where the

overemphasis on competitive factors led to a lack of creativity in SMEs, hindering their ability to differentiate and innovate. The novelty of this study lies in the explicit identification of this negative relationship, suggesting that SMEs in Makurdi might be overwhelmed by competitive pressures, which in turn prevents them from focusing on long-term innovation strategies. While the negative effect of competitive scanning on sales growth in this study might seem to contrast with findings from Yanai and Cohendet (2019), who found a positive link between environmental scanning and innovation performance, it highlights the need for SMEs to strike a balance between monitoring competitors and focusing on their own innovative capabilities.

III. EFFECT OF TECHNOLOGY SCANNING ON MARKET SHARE AND SALES GROWTH OF SMES IN MAKURDI METROPOLIS, BENUE STATE, NIGERIA

Technology scanning (TCS) shows a strong positive relationship with market share and a moderately positive but marginally significant relationship with sales growth. This finding is consistent with prior studies that underscore the importance of technological adaptation for business growth. For instance, Khoirunisa et al. (2020) identified technological scanning as a significant predictor of competitive advantage for SMEs. Similarly, in the context of Malaysian SMEs. This study align with the current study's finding that SMEs in Makurdi that engage in technology scanning are more likely to gain a competitive edge by improving productivity and product quality, which in turn strengthens market share.

However, while the current study highlights a positive influence of technology scanning on market share, the marginal significance of the relationship with sales growth is worth noting. This divergence from earlier studies, such as those by Zayed and Tarhini (2018), who found that technology scanning positively affected both strategic agility and performance, suggests that while technological adoption is crucial, its effects on sales might be more complex and context-dependent. This could be due to the SMEs' varying capacities to implement technological changes or the nature of the technologies adopted, which may not always lead to immediate sales increases but rather a longer-term improvement in market positioning.

IV. EFFECT OF SOCIETAL SCANNING ON MARKET SHARE AND SALES GROWTH OF SMES IN MAKURDI METROPOLIS, BENUE STATE, NIGERIA

The findings of this study indicate a significant positive relationship between societal scanning (SOS) and sales growth, with SMEs engaging in societal scanning being significantly more likely to experience improved sales growth compared to those that do not. This resonates with previous research that suggests aligning business practices with societal trends and consumer needs can drive positive outcomes. For instance, Blaique et al. (2024) found that social capital, facilitated by strategic environmental scanning, positively impacted innovation capabilities, especially in service sectors. Their findings support the argument that societal scanning helps firms stay attuned to changing social values, thus enhancing their market competitiveness and innovation, which could, in turn, affect sales growth. However, the negative, non-significant effect of societal scanning on market share in this study contrasts with other empirical findings.

HYPOTHESES TESTING

Using probability value of the estimate to test the hypotheses, we have the following decision rule.

Decision rule: *If the p-value of* (b_i) > than the critical value we accept the null hypothesis, that is, we accept that the estimate b_i is not statistically significant at the 5% level of significance. Or if the *p-value of* (b_i) < than the critical value, we reject the null hypothesis, in other words, that is, we accept that the estimate b_1 is statistically significant at the 5% level of significance. At the 5% level of significance ($\alpha = 0.05$), the hypotheses were tested as follows:

HYPOTHESIS TESTING RESULTS

S/No	Hypothesis	Decision Rule (Accept/Reject Null Hypothesis)
1	H01: Political and Legal Scanning has no significant effect on Market Share of SMEs in Makurdi Metropolis	Reject H0 (p = 0.002 < 0.05)
2	H02: Competitive Scanning has no significant effect on Market Share of SMEs in Makurdi Metropolis	Fail to reject H0 (p = 0.496 > 0.05)
3	H03: Technology Scanning has no significant effect on Market Share of SMEs in Makurdi Metropolis	Reject H0 (p = 0.018 < 0.05)
4	H04: Societal Scanning has no significant effect on Market Share of SMEs in Makurdi Metropolis	No result provided (assumed non-significant)
5	H05: Political and Legal Scanning has no significant effect on sales growth of SMEs in Makurdi Metropolis	Fail to reject H0 (p = 0.088 > 0.05)

6	H06: Competitive Scanning has no significant effect on sales growth of SMEs in Makurdi Metropolis	Reject H0 (p = 0.002 < 0.05)
7	H07: Technology Scanning has no significant effect on sales growth of SMEs in Makurdi Metropolis	Fail to reject H0 (p = 0.068 > 0.05)
8	H08: Societal Scanning has no significant effect on sales growth of SMEs in Makurdi Metropolis	Reject H0 (p = 0.000 < 0.05)

5.0 CONCLUSION AND RECOMMENDATION
CONCLUSION

This study highlights the significant role of environmental scanning in shaping the performance of SMEs in Makurdi Metropolis, particularly in terms of market share and sales growth. The findings reveal that political, legal, and technological scanning positively influence market share, underlining the importance of regulatory awareness and technological adaptation in fostering business competitiveness. While societal scanning has a strong impact on sales growth, it does not have the same effect on market share, suggesting that SMEs in Makurdi are better positioned to respond to social trends and customer needs for immediate sales growth, but may not be leveraging these insights for long-term market positioning. On the other hand, competitive scanning was found to have an inverse relationship with sales growth, indicating that excessive focus on competitors could hinder innovation and creative business strategies. The study also emphasizes the need for SMEs to integrate and effectively apply insights from societal trends, consumer behavior, and competitive forces into their overall strategic framework for sustainable growth. While environmental scanning presents opportunities for SMEs to enhance market competitiveness, the results highlight that its impact is often contingent on how well firms adapt these insights into actionable strategies. For SMEs in Makurdi, this research calls for an increased focus on enhancing their environmental scanning capabilities and integrating these insights into long-term strategic planning, particularly in the areas of societal and technological scanning, to ensure sustained growth and resilience in an ever-changing business landscape.

RECOMMENDATIONS

i. SMEs should invest in better monitoring of political and legal trends to stay ahead of regulatory changes. This proactive approach will help improve market share and ensure business stability by adapting quickly to new laws and policies.

ii. SMEs should prioritize technological scanning to remain competitive. Regularly adopting and integrating emerging technologies can improve productivity, reduce costs, and enhance product quality, leading to stronger market share and improved long-term sustainability.

iii. While societal scanning has a significant impact on sales growth, SMEs should work to translate societal insights into long-term strategic initiatives. Aligning business practices with social trends and consumer values will build brand loyalty and improve market positioning.

iv. Given the negative impact of excessive competitive scanning on sales growth, SMEs should balance competitive intelligence with innovation. Focusing too much on competitors may limit creativity, so SMEs should prioritize unique value propositions and differentiation strategies.

v. To maximize the benefits of environmental scanning, SMEs should provide training to their management teams on how to interpret and utilize scanning information effectively. This will help improve decision-making processes, particularly in competitive strategy and market positioning.

vi. SMEs should create a more robust connection between societal and technological scanning to drive innovation. This could involve developing new products or services that meet both technological advancements and evolving social demands, which will further support sales growth.

vii. SMEs should integrate the insights from societal, technological, and political/legal scanning into their long-term strategies. This will allow them to anticipate market changes and build resilience against future challenges, ensuring consistent performance and growth.

viii. SMEs should seek partnerships with government bodies, industry associations, and other external stakeholders to enhance their scanning efforts. Collaborating with these groups can provide additional insights and resources, supporting the SMEs' competitive edge and overall growth strategy.

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