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ENVIRONMENTAL SCANNING INTENSITY AND THE ENTREPRENEURIAL ORIENTATION OF SMES IN OSUN STATE OF NIGERIA: IMPLICATION FOR STRATEGIC MANAGEMENT PRACTICES

BY

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Abstract

Purpose: *This study aims to investigate the influence of environmental scanning intensity on the entrepreneurial orientation of small and medium-sized enterprises (SMEs) in Osun State, Nigeria, highlighting the implications for strategic management practices.*

Design/Method/Approach: *A survey research design was employed, utilizing stratified random sampling to collect data from 670 SMEs. A structured questionnaire assessed environmental scanning practices and entrepreneurial orientation. Descriptive and inferential statistics were analyzed using regression analysis to test the hypotheses.*

Findings: *The results indicate a positive significant effect of environmental scanning intensity on the entrepreneurial orientation of SMEs ($\beta = 0.289$, $p < 0.05$), suggesting that increased scanning enhances proactiveness, risk-taking, and innovativeness among these enterprises.*

Implications: *This study underscores the necessity for SMEs to prioritize environmental scanning as a strategic tool to improve their competitive edge and sustainability in a challenging economic environment.*

Originality/Value: *This research fills a gap in existing literature by empirically linking environmental scanning practices to entrepreneurial orientation in the context of Nigerian SMEs, providing a foundation for future studies on strategic management in emerging economies.*

Keywords*: Environmental Scanning, Entrepreneurial orientation, SMEs, Strategic Management, Osun State*

Introduction

In today's rapidly changing business landscape, small and medium-sized enterprises (SMEs) face numerous challenges and opportunities that demand adaptive strategic approaches. Environmental scanning, defined as the process of collecting and analyzing information about external factors that could impact an organization, plays a crucial role in shaping the entrepreneurial orientation of these enterprises (Phan et al., 2020). Entrepreneurial orientation (EO), characterized by proactiveness, risk-taking, and innovativeness, is essential for SMEs striving to achieve competitive advantage and sustainability (Umar et al., 2023). In Osun State, Nigeria, where

SMEs are pivotal to economic development and job creation, understanding the relationship between environmental scanning intensity and EO is particularly relevant. Recent studies (Adeyeye et al., 2018) indicate that SMEs that engage in systematic environmental scanning are better equipped to identify market trends, anticipate consumer needs, and navigate competitive pressures (Studies et al., 2023). However, despite the critical role of EO in driving innovation and growth, there remains limited empirical research on how environmental scanning influences the entrepreneurial behaviors of SMEs in this region. This paper aims to explore the influence of environmental scanning intensity on the entrepreneurial orientation of SMEs in Osun State, providing insights into how these enterprises can leverage external information to enhance their competitiveness. By examining the dynamics between environmental scanning and EO, this study contributes to the understanding of strategic management practices that can empower SMEs in developing economies.

Statement of the problem

There is a dearth of empirical studies on environmental scanning intensity and entrepreneurial orientation of SMEs in Nigeria. Most scholars merely focused their attention on challenges such as poor access to finance, poor infrastructure, technological problem, foreign exchange problem, competition, lack of focus, poor managerial skills among other factors militating against the performance of SMEs in Nigeria (Adebisi & Azeez, 2017; Ijir & Gbegi, 2015). Little or no attention has been focused on environmental scanning intensity as one of the internal business processes that promote entrepreneurial orientation of SMEs. The study conducted by Kuye et al (2013) reveal that manufacturing firms in Nigeria are not committed to environmental scanning intensity; hence, they recorded low performance. Asikhia (2016) also confirmed in his study of 581 SMEs in Nigeria that CEOs of SMEs need to do environmental scanning so as to enhance their wealth creation and ability to compete internationally. Adegbite and Abereijo (2014), in their investigation of 88 SMEs in the South West Nigeria found that the entrepreneurial orientation of entrepreneurs is low. Consequently, lack or inadequate commitment to environmental scanning intensity by owner managers/CEOs of SMEs in Nigeria and Osun State in particular may lead to low entrepreneurial orientation and unsustainable performance.

Objective

The main objective of this paper is to investigate the influence of environmental scanning intensity on the entrepreneurial orientation of SMEs in Osun State of Nigeria. The specific objectives are to:

1. analysis the environmental scanning intensity of SMEs in Osun State, Nigeria
2. investigate SMEs perception of entrepreneurial orientation in Osun State, Nigeria

Hypothesis

H_{01}: Environmental scanning intensity has no significant influence on the entrepreneurial orientation of SMEs in Osun State.

Methods

Research Design: This study adopted a survey research design, which allows for

the collection of extensive data from a large population through questionnaires and interviews. This approach facilitates the investigation of strategic management practices and entrepreneurial orientation by answering critical questions related to 'how, what, who, where, and when' (Ibidunni, 2009). The survey method has been effectively utilized in prior studies (Abogun & Fagbemi, 2011; Banerjee, 2013; Obasan & Soyebo, 2012) and was employed here to gather data on five strategic management practices and three elements of entrepreneurial orientation to assess their influence on SMEs in Osun State.

Population and Sample Size: The target population for this study comprised all SMEs in Osun State, Nigeria, where SMEs are vital for economic growth. The total population as of 2013 was 2,273 SMEs (National MSME Survey Report, 2013). A multi-stage sampling technique was utilized, stratifying the state into six administrative zones to ensure representation. The sample size was determined using Cochran's formula, resulting in 670 SMEs after accounting for potential non-response. Simple random sampling was employed to select the participants, ensuring equal opportunity for all SMEs.

Data Collection and Analysis: Data were collected using a well-structured, validated questionnaire focusing on strategic management practices and entrepreneurial orientation. The survey was conducted between May and August 2017, with assistance from trained research assistants. Descriptive statistics, including means and standard deviations, were used to analyze the data, while inferential statistics, specifically regression analysis, tested the hypotheses at a 5% significance level. This methodology allowed for a comprehensive examination of the relationship between strategic management practices and the entrepreneurial orientation of SMEs in Osun State.

Results

Table 1: Descriptive Analysis on Environmental Scanning Intensity of SMEs in Osun State, Nigeria

Items	Very Low	Low Exte	Mod erate	Fairl y	High Exte	Very high	Mea n	SD
Routine gathering of information on opportunities and threats in the external environment	3 0.5%	0 0.0%	0 0.0%	67 10.3%	204 31.3%	378 58.0%	5.4586	.73937
Tracking the politics and tactics of competitors	0 0.0%	3 0.5%	13 2.0%	79 12.1%	373 57.2%	184 28.2%	5.1074	.71680
Sales forecasting and monitoring	0 0.0%	6 0.9%	4 0.6%	129 19.8%	277 42.5%	236 36.2%	5.1242	.80793

customer preferences								
Tracking technological trends	0 0.0%	3 0.5%	18 2.8%	76 11.7%	280 42.9%	275 42.2%	5.2362	.79710
Conducting special marketing research studies.	0 0.0%	6 0.9%	9 1.4%	251 38.5%	207 31.7%	179 27.5%	4.8344	.87823
Obtaining information from trade magazines, government publications, and news media.	0 0.0%	3 0.5%	29 4.4%	145 22.2%	255 39.1%	220 33.7%	5.0123	.88328
Gathering information from suppliers and from other channels	0 0.0%	0 0.0%	22 3.4%	165 25.3%	257 39.4%	208 31.9%	4.9985	.84151
Collecting information on life styles and social values of society.	0 0.0%	6 0.9%	24 3.7%	275 42.2%	176 27.0%	171 26.2%	4.7393	.92056
Collecting information on economic factors (interest rates, GDP, etc.)	3 0.5%	3 0.5%	28 4.3%	91 14.0%	200 30.7%	327 50.2%	5.2439	.93262
Collecting information on political factors (new processes, materials, laws)	3 0.5%	12 1.8%	27 4.1%	132 20.2%	313 48.0%	165 25.3%	4.8942	.92224
Collecting information on new products, processes, systems and materials.	3 0.5%	9 1.4%	15 2.3%	98 15.0%	301 46.2%	226 34.7%	5.0905	.88307
Collecting information on competitor's strategies from time to time	3 0.5%	9 1.4%	6 0.9%	73 11.2%	284 43.6%	277 42.5%	5.2347	.84706
Average							5.0811	.8474

Source: Field Survey Results, 2017

Table 1 presents respondents' opinion on environmental scanning intensity measuring scale. The results of descriptive analysis showed that 58% of the respondents indicated that they carry out routine gathering of information on opportunities and threats in the external environment to a very high extent while 31.3% to a high extent. Further, 28.2% of the respondents indicated that they track the politics and tactics of competitors to a very high extent while 57.2% are to a high extent. From the analysis, majority (42.5%) indicated that they conduct sales forecasting and monitor customers' preferences to a high extent, while 36.2% are to a very high extent. Moreover, most of the respondents (42.9%) indicated that they track technological trends to a high extent while 42.2% to a very high extent. From the results, majority (38.5%) showed that they conduct special marketing research studies to fairly high extent, 31.7% to a high extent, while 27.5% to a very high extent. On the other hand, majority of the respondents (39.1%) reported that they obtain information from trade magazines, government publications and news media to a high extent, 33.7% to a very high extent, while 22.2% to fairly high extent. Also, the results revealed that 39.4% of the respondents indicated that they gather information from suppliers and from other channels to a high extent while 31.9% to a very high extent. However, 42.2% of the respondents reported that they collected information on life styles and social values of society to a fairly extent, 27% to a high extent while 26.2% to a very high extent. In contrast, 50.2% of the respondents indicated that they collected information on economic factors (interest rates, GDP, and more) to a very high extent while 26.2% to a high extent. Furthermore, the result reveals that 48% of the respondents reported that they collect information on political factors (new processes, materials, laws) to a high extent while 25.3% to a very high extent. In addition, 46.2% of the respondents reported that they collect information on new products, processes, systems and materials to a high extent while 34.7% to a very high extent. Finally, 43.6% of the respondents indicated they collect information on competitor's strategies from time to time to a high extent while 42.5% to a very high extent. The average mean score for responses for environmental scanning intensity was 5.0811 which indicates that the SMEs carry out environmental scanning intensity to a high extent. Also, the answers agreed with statements in the questionnaire as shown by a standard deviation of .8474.

Table 2: Respondents' Perception on Entrepreneurial Orientation of SMEs

Items	Very Low Exten	Low Exten	Mode rate	Fairl y	High Exten	Very high exten	Mean	SD
Innovativeness								
Emphasis on the marketing of tried and true products or services.	381 58.4 %	137 21.0 %	23 3.5 %	9 1.4%	31 4.8%	71 10.9%	1.687 08	1.6870 8
Marketing of new lines of product or services in the past recent years.	9 1.4%	9 1.4%	3 0.5 %	102 15.6 %	296 45.4 %	233 35.7%	.9325 2	.93252
Changes in product or service lines	3 0.5%	6 0.9%	12 1.8 %	87 13.3 %	296 45.4 %	248 38.0%	.8473 7	.84737
Reward for creativity	6 0.9%	6 0.9%	15 2.3 %	156 23.9 %	281 43.1 %	188 28.8%	.9204 5	.92045
Tolerance for mistakes on the part of any of your employees in the course of his/her job	12 1.8%	9 1.4%	30 4.6 %	209 32.1 %	219 33.6 %	173 26.5%	1.059 05	1.0590 5
Searching for new ways of doing things provided the current way of doing things is efficient	15 2.3%	24 3.7%	9 1.4 %	144 22.1 %	265 40.6 %	195 29.9%	1.119 56	1.1195 6
Proactiveness								
Responding to actions which competitors initiate.	360 55.2 %	107 16.4 %	12 1.8 %	19 2.9%	76 11.7 %	78 12.0%	2.352 8	1.8791 7
Introduction of new products/services	3 0.5%	0 0.0%	9 1.4 %	77 11.8 %	278 42.6 %	285 43.7%	5.273 0	.78131
Introduction of administrative techniques	9 1.4%	0 0.0%	15 2.3 %	101 15.5 %	319 48.9 %	208 31.9%	5.062 9	.88547
Introduction of	9	9	16	89	292	237	5.081	.96855

operating technologies	1.4%	1.4%	2.5 %	13.7 %	44.8 %	36.3%	3	
Avoidance of competitive clashes, preferring a "live-and-let-live" posture.	387 59.4 %	112 17.2 %	13 2.0 %	33 5.1%	40 6.1%	67 10.3%	2.122 7	1.7325 8
Anticipatory action on business issues	3 0.5%	6 0.9%	0 0.0 %	107 16.4 %	383 58.7 %	153 23.5%	5.024 5	.74529
Initiative to seek opportunities which are not related to the organisation's present lines of business	6 0.9%	12 1.8%	12 1.8 %	253 38.8 %	271 41.6 %	98 15.0%	4.633 4	.88977
Learning from other entrepreneurs mistakes/experience instead of being the victim	337 51.7 %	146 22.4 %	23 3.5 %	39 6.0%	55 8.4%	52 8.0%	2.210 1	1.6693 7
Risk Taking								
Tendency for low risk projects (with normal and certain rates of return.	215 33.0 %	282 43.3 %	40 6.1 %	48 7.4%	30 4.6%	37 5.7%	2.243 9	1.3968 5
Exploration via cautious, incremental behavior.	240 36.8 %	283 43.4 %	38 5.8 %	42 6.4%	21 3.2%	28 4.3%	2.087 4	1.2868 3
Adoption of a cautious, "wait-and-see" posture in order to minimize the probability of making costly decisions.	285 43.7 %	254 39.0 %	28 4.3 %	33 5.1%	18 2.8%	34 5.2%	1.998 5	1.3296 8
Investment on ventures that have	273 41.9	240 36.8	41 6.3	33 5.1%	15 2.3%	50 7.7%	2.121 2	1.4514 3

better chances of success as opposed to businesses whose success cannot be ascertained	%	%	%					
Tolerance for risk taking	3 0.5%	21 3.2%	18 2.8 %	117 17.9 %	298 45.7 %	195 29.9%	4.949 4	.97537
Investment of resources on existing lines of business instead of breaking new grounds	404 62.0 %	133 20.4 %	27 4.1 %	36 5.5%	12 1.8%	40 6.1%	1.832 8	1.4157 2
Average							3.691 7	1.1986

Source: Field Survey Results, 2017

Table 2 presents the respondents' opinion on various issues of Entrepreneurial Orientation (Innovativeness, Proactiveness, and Risk Taking) of the SMEs. On the Innovativeness, the analysis indicates that 58.4% of the SMEs placed emphasis on the marketing of tried and true products or services to a very low extent while 21% of the respondents are to a low extent. From the analysis, majority (45.4%) of the respondents carry out marketing of new lines of product or services in the past recent years to a high extent while 35.7% do it to a very high extent. Further, 45.4% of the respondents reported that they do changes in product or service lines to a high extent while 38% do it to a very high extent. Moreover, 43.1% of the respondents reported that they give reward for creativity to a high extent while 28.8% are to a very high extent. The results also revealed that 33.6% of the respondents showed that they have tolerance for mistakes on the part of any of their employees in the course of his/her job to a high extent while 26.6% are to a very high extent. Furthermore, 40.6% of the respondents indicated that they are searching for new ways of doing things provided the current way of doing things is efficient to a high extent while 29.9% do to a very high extent. On entrepreneurial orientation of SMEs with respect to proactiveness, 55.2% of the respondents indicated that they respond to actions which competitors initiate to a very low extent while 16.4% respond to a low extent. The results reveal that majority (43.7%) of the respondents indicated that they carryout introduction of new products/services to a very high extent while 42.6% carry it to a high extent. Further, the result shows that 48.9% of the respondents carry out introduction of administrative techniques to a high extent while 31.9% to a very high extent. Also, the result shows that 44.8% of the respondents reported that they carry out introduction of operating technologies to a high extent while 36.3% do to a very high

extent. However, 59.4% of the respondents reacted that they avoid competitive clashes, but prefer a "live-and-let-live" posture to a very low extent and 17.2% to a low extent.

On the contrary, 58.7% of the respondents indicated that they conduct anticipatory action on business issues to a high extent while 23.5% are to a very high extent. Further, majority (41.6%) of the respondents reported that they take initiative to seek opportunities which are not related to the organization's present lines of business to a high extent, 38.8% fairly extent, while 23.5% to a very high extent. Finally, the results showed that 51.7% of the respondents practice learning from other entrepreneurs' mistakes/ experience instead of being the victim to a very low extent while 22.4% to a low extent. Concerning entrepreneurial orientation of SMEs with respect to risk taking, 43.3% of the respondents reported they have tendency for low risk projects (with normal and certain rates of return to a low extent while 33% to a very low extent. Further, 43.4% of the respondents reported they carry out exploration via cautious, incremental behavior to a low extent while 36.8% to a very low extent. In addition, 43.7% of the respondents reported that they adopt a cautious, "wait-and-see" posture in order to minimize the probability of making costly decisions to a very low extent while 36.8% to a low extent. Furthermore, 41.9% of the respondents indicated that they invest on ventures that have better chances of success as opposed to businesses whose success cannot be ascertained to a very low extent while 36.8% indicated to a low extent. However, 45.7% of the respondents showed that they have tolerance for risk taking to a high extent while 29.9% do to a very high extent. The average mean score of the responses was 3.6917 which indicate that the majority of the respondents were of the view that SMEs carryout entrepreneurial orientation to a moderate extent. The standard deviation was 1.1986 meaning that the responses were clustered around the mean response.

Hypothesis H_{01}: Environmental scanning intensity has no significant effect on the entrepreneurial orientation of SMEs in Osun State of Nigeria. In order to test hypothesis one, regression analysis was used. Data for environmental scanning intensity and the entrepreneurial orientation of SMEs were generated by adding scores of responses of all items for each of the variables. The results of the analysis are presented in Table 3

Table 3: The Effect of Environmental Scanning Intensity on Entrepreneurial Orientation of SMEs

Model		Unstandardised Coefficients		Standardised Coefficients	T	Sig.
		B	Std. Error	Beta		
	(Constant)	56.231	4.358		12.903	.000
	Environmental scanning intensity	.289	.071	.157	4.062	.000
R = .157; R2 = 0.025; F-stat (1/650) = 15.500						
a. Dependent Variable: entrepreneurial orientation of SMEs						

Source: Source: Field Survey Results, 2017

Table 3 illustrates the effect of environmental scanning intensity on entrepreneurial orientation of SMEs. The results show that environmental scanning intensity has a positive significant effect on entrepreneurial orientation of SMEs ($\beta = 0.289$, $p<0.05$). Correlation coefficients (R) is 0.157. The correlation between environmental scanning intensity and entrepreneurial orientation of SMEs is weak. The results further show that there are different variations in environmental scanning intensity and entrepreneurial orientation of SMEs. The coefficient of determination, $R^2 = 0.025$ explains that 2.5% of the variations of entrepreneurial orientation of SMEs have been explained by the environmental scanning intensity. 97.5% of the variations are explained by other factors. The conclusion is that the regression model for the environmental scanning intensity and entrepreneurial orientation of SMEs does not have a good fit. Further the result shows that the explanatory power of the model was statistically significant. Overall, the results reveal that environmental scanning intensity has a positive significant effect on entrepreneurial orientation of SMEs in Osun State. The regression equation to predict effect of environmental scanning intensity on entrepreneurial orientation of SMEs is:

EO = 56.231 + .289ESI ……..…. (eq.i)

Where:

EO = entrepreneurial orientation of SMEs

ESI = Environmental scanning intensity

From the regression equation above, taking environmental scanning intensity constant at zero, the value of entrepreneurial orientation of SMEs in Osun State was 56.231. The regression coefficient of environmental scanning intensity was 0.289, which implies that an increase in environmental scanning intensity by one unit leads to an increase in Entrepreneurial orientation of SMEs by 0.289 units. This implies that the entrepreneurial orientation of SMEs in Osun State increases significantly when environmental scanning intensity by SMEs are increased. Therefore, the null hypothesis one (H_{01}) which states that environmental scanning intensity has no significant effect on the entrepreneurial orientation of SMEs in Osun State of Nigeria is hereby rejected.

Discussion

The finding of hypothesis one revealed that environmental scanning intensity has a positive significant influence on the entrepreneurial orientation of SMEs in Osun State of Nigeria. While the result of the current study is consistent with the outcomes of several other researches in the domains of strategic management and entrepreneurial orientation/entrepreneurship, the result of the study carried out by Gathenya (2012) on Entrepreneurial Strategic Planning Practices and Firm Performance among Women-Led Small and Medium Enterprises in Kenya is at variance. Its finding in this regard indicates that environmental scanning intensity of routine gathering of clients' opinion and suppliers, tracking of competitors' policies and tactics and use of various public media has no significant influence on the performance of Women-Led SMEs in Kenya. The consistency in which information is obtained on various issues such as local politics and economic,

technological, demographic, social, customers, competitors, suppliers and distribution channels, global, ecological and changes within the enterprises and overall scanning intensity has no linear significant influence on enterprise performance. Similarly, the study conducted by Kroeger (2007) on small businesses in the Northeastern Ohio which examined the relationship among a firm's environmental scanning intensity, locus of planning, planning flexibility and firm performance with external environment as a moderating variable also has the same result as that of Gathenya (2012). The outcomes of the two studies suggest that environmental scanning intensity is not a predictor of firm performance. This, in essence, implies that organisations operating in stable or volatile and turbulent environment do not need to engage in any intensive environmental scanning before achieving firm performance.

In the case of Kroeger (2007), it was argued that the variance in the result of the study could be that the sampled population might not have the luxury of specialised scanning team (Morgan & Strong, 2003). In addition, it was argued that it could be because of the fact that less than 50% of small businesses actually do continuous scanning, which might result in missing or ignoring vital opportunities in the external environment. With regard to Gathenya (2012), the variance in the result was hinged on the political crisis in Kenya around 2007-2008 which might have probably affected the firms in carrying out thorough scanning of their external environment.

Murimbika (2014) also conducted a study on the influence of strategic management practice of environmental scanning intensity on organisational entrepreneurial orientation of South African firms in the financial and business services sector. Specifically, the influence of strategic management practice on entrepreneurial orientation in medium to large corporations in the financial and business services sector in South Africa was analysed by testing hypothesis that predicted the relationship between strategic management dimension of environmental scanning intensity and the entrepreneurial orientation of firms. The result revealed that the application of strategic management practice of environmental scanning intensity has positive significant influence on firms' entrepreneurial orientation. Similarly, the result of the study conducted by Boru (2014) also supports the previous findings of various researchers such as Murimbika and Urban (2013) & (2014). Yoo (2016) conducted a study on Entrepreneurial Orientation, Environmental Scanning Intensity and Firm Performance in Technology-Based SMEs in China. The outcome of the study also supports the previous findings that environmental scanning and firm performance are positively correlated. In specific terms, environmental scanning intensity does not only directly contribute to firm performance but also promotes the entrepreneurial orientation of a firm thus resulting in high performance (Adewole & Opele, 2019)

In short, the study found that environmental scanning intensity is one of the factors that influence entrepreneurial orientation within firms. The various empirical evidences highlighted along with the result of the current study have demonstrated that there is positive relationship between strategic management practice of environmental scanning and

corporate entrepreneurship as well as entrepreneurial orientation of firms. These empirical evidences suggest that firms operating in turbulent environments must be constantly innovative to remain competitive in the market place. The results further indicated that environmental scanning is one of the most important strategic tools for managers because of today's high rate of environmental change. Environmental scanning also helps managers reduce degrees of uncertainty and lower risk perception often associated with entrepreneurial firms (Adeyeye et al., 2018).

Conclusion

Findings from the current study indicated that, the correlation between environmental scanning intensity and entrepreneurial orientation of SMEs in Osun State, Nigeria is rather weak. However, this study concluded that despite the weakness, environmental scanning has increasingly become a major strategic tool for firms in reducing uncertainty inherent in decision making through effective and efficient opportunity recognition and exploitation of environmental change. The weak correlation between environmental scanning intensity and entrepreneurial orientation as depicted by the result of this study suggests that the owner managers of SMEs in Osun State are not giving environmental scanning the deserved attention in their operations.

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