Full Length Research Paper

Organizational strategy and firm performance: a test of miles and snow's model using 34 paint manufacturing SMES in South-western Nigeria

*Ade Oyedijo and Akewusola RO

Department of Business Administration and Management Technology, Lagos State University, Ojo, Lagos, Nigeria

Abstract

This paper provides a systematic empirical evidence obtained from 34 paint manufacturing SMEs in South-Western Nigeria in support of Miles and Snow's model that prospectors and anxious analyzers perform better than domain defenders and reluctant reactors. Primary and secondary data were used for the analysis. Using the ordinary least square (OLS) regression technique and correlation matrix to analyze performance data covering a period of three years, significant performance differences were found between prospectors, analyzers, defenders and reactors. A negative performance was found to be associated with a reluctant reactor strategy and this was significant at 0.05 level. The study found out that SMEs compete in different ways thus allowing for their classification as prospectors, analyzers, defenders and reactors. This result has brought additional fresh evidence to dismiss the speculation that Miles and Snows typology is a sequential stage of strategy development in which defender strategies are linked to small firms and prospector strategies to larger firms. The overall evidence in the study suggests that organizational strategy plays an important role in explaining the relative success or failure of SMEs and that SME managers can make a significant difference to the performance of their organizations through the type of strategies that they use.

Keywords: Organizational strategy, organizational performance, prospectors, anxious analyzers, domain defenders, reluctant reactors.

INTRODUCTION AND PURPOSE

One of the core functions of top managers is to shape a company's strategy. A strategy may be defined as a pattern of decisions that are selected and implemented to achieve a long-term goal and a sustainable competitive advantage. Grant (1991) defines a strategy as the overall game plan for deploying resources to establish a favourable industry – market position. Many studies have contended and demonstrated that the type of strategy that is used by a company matters and makes a big difference to performance (e.g. Ketchen, et. al., 1996; Miles and Snow, 1978; Slater and Olsen, 2000). Thus, a major issue for managers is ensuring that they have the right strategy in order to perform and compete effectively. The purpose of this paper is to provide a systematic empirical evidence on

the validity or otherwise of this proposition by testing Miles and Snow's model using multiple-informant cross-sectional survey data from 34 SMEs in South-Western Nigeria.

The performance of Nigerian SMEs has been a major focus of research by many scholars. While much effort has been made to determine the influence of many variables on the performance of SMEs in Nigeria, such as owner-motivation (Ogundele and Opeifa, 2003), ethical practices (Ogundele, Olajide, Hassan and Ashamu, 2008) strategic planning intensity (Akewushola, 2010), and marketing orientation practices (Oyedijo, Idris and Aliu, 2010), no work has been done to examine and determine the impact of the type of strategy that is used on the performance of these organizations. This paper provides the first empirical test of the relationship between strategy type and firm performance in Nigerian small and medium business organizations.

The paper is divided as follows. In the next section,

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*Corresponding Author Email:oyedijo98@yahoo.com

Miles and Snow's strategy types are presented. The literature is then reviewed and the hypotheses on the relationship between strategy type and firm performance are presented. This is followed by a discussion of the way the variables are operationalised and measured and the methods used to collect data for the analysis. The interpretation of the statistical findings and the limitations and suggestions for future research are presented in the concluding section.

LITERATURE REVIEW

Based on three studies in four industries (College textbook publishers, electronics, food processors and health care), Miles and Snow (1978) concluded that four types of viable SBU strategies can be identified. They are: prospectors, anxious analyzers, domain defenders and reluctant reactors. At a conceptual level, these seem to cover all the major possible organizational responses to new circumstances: innovate (prospector), follow promising new developments (anxious analyzer), consolidate (domain defender) or wait for the unfolding developments (reluctant reactor). Miles and Snow's (1978) model which is perhaps the best known and most widely used SBU typology has proven to be very robust and adaptable as evidenced by its successful application to the study of a wide variety of strategic issues. It has been used to examine changes in R and D intensity (Hambrick, MacMillan and Barbarosa, 1983), distinctive competence and performance (Snow and Hrebiniak, 1980); manufacturing and service strategies (Adam, 1983); strategic awareness (Hambrick, 1981); environmental scanning (Hambrick, 1982); strategic choice (Burgleman, 1983; Seger, 1989); and compensation strategies (Broderick, 1986; Gomez-Mejia, 1992). Empirical results also provide strong support for its reliability and validity (Shortell and Zajac, 1990).

Prospectors according to Miles and Snow (1978) are organizations which "almost continually search for market opportunities and regularly experiment with potential responses to emerging environmental trends". Such organizations are characterized by a strong concern for product and market innovation, a visionary mode based on looking ahead to break new grounds, a high risk orientation, a search for new opportunities, a rapid response to new circumstances, the invasion of the markets of other organizations, devotion of more attention to market changes than to improving internal efficiency and an entrepreneurial organizational culture with a calculative commitment (Thompson, 2003; Gomez-Mejia and Balkin, 1992). A prospector organization typically operates within a broad product-market domain that undergoes periodic redefinition. The organization values being "first in" in new product and market areas even if not all of these efforts prove to be highly profitable. The organization responds rapidly to early

signals concerning areas of opportunity, and these responses often lead to a new round of competitive actions. However, this type of organization may not maintain market strength in all of the areas it enters. The strategic patterns of prospectors are opposite to that of defenders. "Unlike the defender whose success comes primarily from efficiently serving a stable domain, the prospector's prime capability is that of finding and exploiting new product and market opportunities" (Miles, Snow, Meyer and Coleman, 1978).

Anxious analyzers are organizations that are seldom first in with new products or services but monitor competitors and adjust their strategies as promising new ideas are seen. Such organizations attempt to maintain a stable, limited line of products or services while at the same time moving out quickly to follow a carefully selected set of the more promising new developments in the industry. By carefully monitoring the actions of major competitors in areas that are compatible with its stable product-market base, an anxious analyzer organization can frequently enter the market as a 'second in' often with a more cost-efficient and superior product or service.

A defender does not strive to be a leader in the field, but instead seeks to be a late adopter of innovations taking a conservative perspective of new product or service development and focusing intently upon a narrow segment of the market to retain its existing core business activities. Such organizations adopt low-risk strategies, operate in secure markets, make a little search if at all for anything really 'new' and develop considerable expertise in narrow areas of specialism. Defenders, as Miles and Snow (1978) argue, will "devote primary attention to improving the efficiency of their existing operations". Such business organizations prefer to maintain a secure position in a relatively stable product or service area. Rather than emphasizing new product development, they emphasize protecting the market share. According to Greenland and McGoldrick (1994), defensive strategies essentially seek damage limitation if a competitor launches an innovation which cannot be copied or improved upon quickly or profitably. A reactor is characterized by an inability to respond effectively to pressures for change. According to Miles and Snow (1978), a reactor will seldom make adjustments of any sort until it is forced to do so by environmental pressure. In other words, adjustments are forced on the firm in order to avert crises.

The central contention of Miles and Snow's (1978) model of organizational strategy is that prospectors and anxious analyzers perform better than domain defenders and reluctant reactors. This has been supported by several studies (e.g. Hawes and Crittenden, 1984; Shortell and Zajac, 1990; Woodside, Sullivan and Trappey, 1999). A study by Conant, et al., (1990) found that profitability is significantly greater for prospectors and defenders than for reactors. However, a reactor strategy is not always associated with poor performance. Snow

and Hrebiniak's (1990) study of four industries confirmed Miles and Snow's (1978) primary hypothesis except in the case of highly regulated industries where reactors outperformed prospectors and defenders. This finding may have implications for the relative effectiveness of different types of strategies in different institutional environments and organizational contexts. For example, a reactor strategy may be a deliberate and positive choice for small and medium scale businesses who may wish to watch the evolving business trends and wait for them to mature fully before taking a decision on how to respond.

Miles and Snow maintain that there are no performance differences between prospectors and defenders. This view was supported by the findings of Slater and Olson (2001). However, the evidence on the relative performance of prospectors and defenders is neither comprehensive nor conclusive perhaps because of the limited number of industries covered by Miles and Snow's (1978) study. A study of chapter 11 bankruptcy by Evans and Green (2000) concluded that business turnaround is more likely to be achieved by prospectors than defenders. In an analysis of the relationships among strategic types, distinctive marketing competencies, and organization performance, Woodside, et. al., (1999) concluded that prospectors outperform defenders, who in turn outperform reactors. A test of the effectiveness and functional attributes of Miles and Snow's strategic types in some U.S companies by Hambrick (1983) showed that prospectors outperform defenders on market share changes, although a reverse pattern was found for return on investment.

An analysis of U.S hospitals by Zajac and Shortell (1989) found that the performance of defenders fell behind other types of generic strategy when the environment called for a more proactive approach. In summary, existing literature reports that there is a broad but mixed support for Miles and Snow's model of strategy and performance.

A test of this model in the small and medium business sector in a developing country where SMEs struggle seriously for survival may confound or strengthen either of the contending schools on this subject. It is possible to find that SMEs wait and watch the unfolding scenarios of business regulations and competition and the responses of larger firms before acting. The application of Miles and Snow's model to SMEs leads to the following hypotheses:

H_1: A prospector strategy and an anxious analyzer strategy are positively related to organizational performance of SMEs.
H_2: Prospector and anxious analyzer SMEs outperform defender and reactor SMEs.
H_3: A defender strategy is positively related to organizational performance of SMEs.
H_4: Defender SMEs outperform reactor SMEs.
H_5: A reactor strategy is negatively related to

organizational performance of SMEs.
H_6: A reactor strategy is positively related to organizational performance of SMEs.

Hypothesis 6 contradicts H_2, H_4, and H_5 but has nevertheless been added because the distinctive environmental context of small and medium scale businesses in Nigeria which is characterized by the dominance of large firms may predispose SMEs to adopt a wait-and-see approach for handling strategic issues imposed by changes in opportunities and threats emerging from the external environmental domain. In doing so, SMEs might hope to improve their chances of survival and better performance by adopting a low-risk strategy.

METHODOLOGY

Operationalisation and measurement of variables Performance

Gross revenue and number of customers were used to measure performance. In Nigeria, gross revenue and number of customers are generally regarded as important criteria for evaluating the success of SMEs and the chances of their survival and growth. Besides, data on gross revenue and number of customers are not controversial and are readily available in the books of the sampled firms although the firms had to be persuaded to release them after explaining that the data were needed for research purposes only. Performance data collected covered a period of three years only (2009 – 2011).

Organizational strategy

One measure for each type of organizational strategy was used in this study. The prospector strategy was operationalised through a measure of product and market innovation. This is considered central to Miles and Snow's (1978) definition of a prospector strategy which includes risk-taking and proactive responses to new external environmental circumstances as well as an entrepreneurial organizational culture. Respondents were asked the extent to which the business approach of their firms displayed these characteristics. The informants were asked directly the extent to which their organizations were exploring new ways of developing their products and markets. To explore the extent to which the sampled SMEs displayed anxious analyzer characteristics, informants were asked to evaluate the efforts of their firms to get to the market first with new products or services. It was reasoned that firms that did not seek to get to the market first are most likely to be monitoring their competitors with a view to adjusting their strategies in response to new developments in the market thus falling into the category of anxious analyzers.

To explore the extent to which the firms in the sample displayed defender characteristics i.e. adopting innovations late, focusing upon a narrow and secure market segment, using tried and tested strategies and making only a little search for things that are truly 'new', informants were asked whether their company's approach to product and service development focused exclusively on their core business. Theoretically, reluctant reactors are expected to wait for product and market innovations to fully mature and crystallize before deciding how to respond to environmental change. The major source of external pressure for change facing SMEs in Nigeria is competition from large scale enterprises and the other numerous SMEs as well as suppliers of inputs to SMEs who often integrate forward into the businesses of such SMEs and cart away their customers. The informants were therefore asked about the extent to which the activities of competitors affected their approaches to product and market improvement.

Sample and data collection

A list of paint manufacturing SMEs maintained by the Nigerian Association of Small and Medium Scale Industrialists (NASMI) South-Western Zone was used to identify the population and the sample for the study. At the time of this study in 2011, there were 201 registered paint manufacturing companies in Nigeria (Yusuf, 2011) of which 148 were located in South-Western Nigeria. Of this figure, 130 were in the SME category using the official definition by the Small and Medium Enterprise Development Agency of Nigeria (SMEDAN).

According to SMEDAN, a small enterprise is an enterprise whose total asset including working capital but excluding the cost of land is between N5million (about US$32500) and N50million (about US$325,000) and or a workforce between ten (10) and forty-nine (49) full-time staff and or with a turnover of not more than N10million (about US$65000) in a year. A medium scale enterprise is defined by SMEDAN as a company with a total asset including working capital but excluding the cost of land and building of more than fifty million naira (N50m) i.e. about US$325,000 but less than five hundred million naira (N500million) i.e. about US$3.30 million and/or a staff strength of between fifty (50) and one hundred and ninety-nine (199) full-time workers and/or with an annual turnover of not more than twenty million naira (N20 million) or about US$1.3 million. All the firms selected were well within these definitions. 98 of the total number of paint manufacturing SMEs in South-Western Nigeria were registered members of NASMI at the time of this study.

A convenience and judgemental sampling method was used to select 58 paint manufacturing SMEs for the study. In all, 39 of the 58 paint manufacturing SMEs initially contacted for the study responded to the survey.

After a thorough check, questionnaires obtained from 34 respondent SMEs were considered suitable for the final analysis. All the 34 firms were registered as private limited liability companies. The biggest of the firms employed 98 workers while the smallest employed 45 workers.

A multiple-informant survey research method involving staff members at senior, middle and low level management positions in the sampled firms was used to collect data on the organizational strategy of the respondent firms. This is considered an improvement on the earlier methods of conducting strategy research which relied on a single source (the CEO and his management team). The multiple-informant survey reflects the voices of senior managers and junior managers in the measures of organizational strategy as against past studies in strategy that relied only on the views of top organizational leaders. The scores of respondents in each firm on a 5-point Likert type scale were added together and averaged to obtain the final, true score of a firm on each of the strategy types. A cluster analysis was then performed to determine the strategy category to which each firm belonged.

DATA ANALYSIS AND DISCUSSION

Analytical procedures

To derive a useful meaning from the data and examine the proposition of this study, data from the survey were analyzed using the Statistical Package for Social Sciences Research (SPSS) which is very popular among academics for this type of survey by questionnaire. Primary and secondary data were used for the analysis.

Data collected were subjected to three main types of analysis. In order to gain perspectives into the level of adoption of competitive strategies by firms, frequency distribution of firms was calculated while descriptive statistics was employed in determining the type of organizational strategies in the SMEs under study according to Miles and Snow. Correlation matrix analysis (i.e. pairwise correlation) was employed to show the existence of relationship between organizational strategies and the performance of the paint manufacturing SMEs as well as the differences between the performance of the SMEs that are using prospector, analyzer, and defender or reactor strategies.

RESULT AND DISCUSSION

Of the total questionnaires distributed to 58 SMEs, a total of 39 questionnaires were completed and after a thorough check, questionnaires obtained from 34 respondent SMEs were considered suitable for the final analysis representing a response rate of 70 percent

of the sample.

To address issues of possible common method variance, Cronbach Alpha reliability test was conducted for all the measures. Reliabilities were checked and they fell between 0.75 and 0.87, which is satisfactory for a study that is exploratory in nature (Nunnally, 1978). The overall Cronbach Alpha of the scales used in this study is 0.81. This indicates that reliability of the scales is reasonably high thus depicting high internal consistency among the measurement items. Validity checks were made via assessment by a panel of experts in the field.

As can be seen in Table 1 and in accordance with Miles and Snow, all the 34 respondent firms adopted the four types of organizational strategies. The most common strategy among the sample was the prospector strategy (41.2%). The least frequent strategy among the sample was the reactor strategy (11.8%).

The means, standard deviations and mean differences from the test values are shown in Table 2. From this Table, prospector strategy had a relatively high mean (Mean = 4.3512). This is because firms that use prospector strategy have a greater chance to perform better than firms using other strategies. The mean scores for analyzer, defender and reactor strategies are 3.8734, 3.3519 and 2.8921 respectively. These results give additional evidence in support of Miles and Snow's contention that analyzers and prospectors are more effective strategies in any business environment. Based on Table 3, it is clear that the measures of organizational strategy are weakly correlated with each other. This suggests that the organizational strategies of prospecting, analyzing, defending and reacting are both conceptually and empirically distinct and can be treated separately rather than combined.

The mean scores of gross revenue and growth in number of customers were 3.9164 and 3.6798 respectively. They were relatively significant. The Cronbach's Alpha reliability scores of prospector strategy, analyzer strategy, defender strategy, reactor strategy, gross revenue and growth in number of customers are 0.92, 0.86, 0.82, 0.78, 0.93 and 0.94 respectively. All the scales are above the generally accepted reliability level of 0.07 (Nunnaly, 1978). The reliabilities and correlation coefficients for each of the study variables are presented in Table 3. From this Table, it is clear that the variables are positively and strongly correlated (P<0.01). Low correlations were reported for SMEs that adopted a reactor strategy (0.38 and 0.21 for gross revenue and growth in number of customers respectively).

The nature and direction of the relationships among the organizational strategies (prospector strategy, analyzer strategy, defender strategy and reactor strategy) and performance variables (gross revenue and growth in number of customers) are examined by multiple regression analysis. Performance variables were regressed against prospector strategy, analyzer strategy, defender strategy and reactor strategy using two models.

Table 4 presents the effects of the organizational strategies on performance for the two models. The finding shows that for the two models, sales growth and growth in total number of customers are significantly affected by Prospector, Analyzer, Defender and Reactor strategies. The result also shows that there is a significant difference between the performance of companies that are using Prospector and Analyzer strategies and the performance of companies that are using the Defender and Reactor strategies. The result of the analysis showed that the performance of firms that are using Reactor strategy was lower than the performance of the firms that used Prospector, Analyzer and Defender strategies for the two models with Prospector SMEs having the highest performance. Thus, the results indicate that in a small business context one can find all the four strategic types proposed in the Miles and Snow's model.

From Table 4, the coefficients of correlation R are given as 0.93 and 0.90 respectively for model 1 and 2 indicating that there is a very high positive relationship between organizational strategies used and gross revenue, and growth in number of customers. It also implies that a movement in organizational strategies causes a movement in the same direction with the other performance indices.

The R Square (R^2) is given in Table 4 as 0.85 and 0.81 respectively, indicating that organizational strategies contribute 85% and 81% to gross revenue and total number of customers respectively while the remaining respective 15% and 19% are explained by other variables (that is auto correlation). Generally speaking, the following rule applies: The higher the R-Square (R^2), the lower the standard deviation (that is the standard error) of the residuals. Auto-correlation means that there are other variables other than organizational strategies which affect or contribute to the performance indices (gross revenues and growth in number of customers) but were not imputed into the regression model. It is usually given as 1 – R^2.

Overall, the regression model provides a satisfactory level of statistical explanation (R^2 = 85% and 81% for model 1 and model 2 respectively). The coefficients for the organizational strategy variable support hypothesis 1, 2, 4 and 5. The prospector variable has the predicted positive relationship with organizational performance thus confirming the theoretical argument and the results of previous studies that a prospector strategy is associated with organizational success (e.g. Hawes and Crittenden, 1984; Shortell and Zajac, 1990; Woodside, et al., 1999).

Thus, prospectors have a greater chance to perform better than anxious analyzers and defenders or reactors. The result of the analysis also showed that the analyzer strategy has a positive and significant impact on performance although the impact is less than that of the prospector strategy.

This suggests that a strategy of monitoring competitors

Table 1. Frequency Distribution of Firms

Strategy	Measure	Frequency	Percentage
Prospector	The firm is at the forefront of product and market innovative approaches	14	41.2
Anxious analyzer	The firm does not get to the market first with a new product or service but constantly monitors markets for new products and adjusts its strategies quickly	10	29.4
Domain defender	Firm adopts innovation late and focuses upon core business areas as a major part of its business approach	6	17.6
Reluctant reactor	Firm sees pressures from competitors as important in driving product and market improvement	4	11.8
Total		34	100.0

Note: Based on scale of 1 (totally disagree/not important to totally   agree/very important)

Table 2. Descriptive statistics of the variables showing means, standard deviations, mean differences and one sample tests

Variables	Mean	Std Deviation	Mean Difference	t	P Value
Prospector	4.351	0.5321	09876	12.678	0.000
Anxious analyzer	3.8734	0.7856	0.9618	12.062	0.000
Domain defender	3.3519	0.8624	0.9341	11.987	0.000
Reluctant reactor	2.8921	0.9123	0.8964	6.5620	0.000
Gross Rev	3.9164	0.6733	0.9481	11.609	0.000
Number of Customers	3.6798	0.6919	0.9123	11.047	0.000

Table 3. Reliabilities and correlations of the measures

Variables	R	1	2	3	4	5	6
Prospector	0.92	1					
Anxious analyzer	0.86	0.10	1				
Domain defender	0.82	0.06	0.02	1			
Reluctant reactor	0.78	0.03	0.12	0.01	1		
Gross Rev	0.93	0.90**	0.83**	0.68**	0.38	1	
Number of Customers	0.94	0.89**	0.79**	0.64**	0.21	0.16	1

**P<0.01 (one sample t-test) N = 34

Table 4. Regression Results on Firms Performance

Independent Variables	Model 1 Dependent variable: Gross revenue			Model 2 Dependent variable: Growth in total number of customers		
	B	t	Sig.	B	t	Sig.
Constant	7.094	12.701	0.000	5.174	7.761	0.000
Prospector strategy	0.876	6.713	0.000	0.653	4.002	0.000
Analyzer strategy	0.421	4.112	0.002	0.328	3.718	0.000
Defender strategy	0.126	3.163	0.000	0.309	3.463	0.003
Reactor strategy	0.031	1.453	0.063	0.011	2.001	0.041
R	0.93			0.90		
R^2	0.85			0.81		
Adjusted R^2	0.83			0.78		
F	149.51*			132.63*		
N	34			34		

Dependent Variable = Firms Performance, Significant at 0.05 level of significance.

and adjusting a firm's business approach in response to new developments in the market is associated with a high performance. This is perhaps because firms that use this strategy are largely responsive to new developments and needs even though they don't lead the initiative. The result further shows that the defender variable has no significant impact on organizational performance. This contradicts hypothesis 3 and suggests that a strategy that is based on late adoption of innovations and a focus upon a narrow, secure market segment aimed at improving the delivery of existing products and service is not associated with higher performance. This may be due to the fact that firms that adopt this strategy are not adequately responsive to changing environmental demands and needs because the attribute of acuity is either lacking or very low in such firms. Notwithstanding this result, a defender strategy was found to be better than a reactor strategy because the later is negatively related to performance. This may be due to the fact that reactors are usually generally reluctant to move with changes preferring instead to wait until environmental pressures force them to make a change in their business approach. This result supports hypothesis 5 rather than hypothesis 6 and it suggests that small and medium scale paint manufacturing enterprises in Nigeria that seek to improve on their performance in terms of gross revenue and growth in total number of customers must follow major cutting edge innovations in their industries rapidly since most of them lack the financial resource to lead the process. However, those among them that have the capacity to adopt the prospector strategy have the highest chance of improving their gross revenue and customer base and growing their businesses very quickly.

Overall, the evidence provided by this study strongly suggests that the type of strategy that is used makes a big difference to the performance of an organization. The result shows that the type of strategy that is adopted by a company matters. While a prospector strategy and an anxious analyzer strategy are associated with superior organizational performance, a domain defender strategy is associated with low performance while a reluctant reactor strategy is associated with organizational failure.

The study found out that some of the firms in the sample adopt a reactor, wait and see strategy to do business and were already showing signs of distress and failure which are characteristic of firms that are unable to develop the capacity to manage their businesses efficiently and effectively as evidenced by their low gross revenue and a small number of customers. Although the inability of SMEs to access vital capital and a weak national transportation and energy infrastructure as well as government policy inconsistencies, bureaucracy, marketing problems, multiple taxes and levies and non-availability of local raw materials have often been cited as reasons for the poor performance and failure of SMEs in Nigeria, (e.g. Onugu, 2005; Ogundele and Opeifa, 2003;

Ogundele, Hassan and Adebakin, 2008) the adoption of a reluctant reactor response to environmental changes and challenges may be one of the reasons why many SMEs in Nigeria do not exist for a long period of time before going into extinction.

CONCLUSION

This study examined the choice of competitive business level strategies by paint manufacturing SMEs in south-western Nigeria and their impacts on the gross revenue and growth in total number of customers of the firms. The study showed that Prospector strategy, Analyzer strategy, and Defender strategy are highly adopted by the sampled SMEs and that all of them affect each other positively. A very few of the sampled SMEs adopt Reactor strategy (i.e. 5.9%) see Table1. The study revealed that the organizational strategies are highly positively correlated with performance in the sampled SMEs. This study gives additional evidence in favor of the application of Miles and Snow's model of strategic choices in the small business context. As evidenced in the discussion, small and medium business organizations compete in different ways thus allowing for their classification as prospectors, analyzers, defenders and reactors. In this sense, the result of the study has brought additional arguments to dismiss Smith, Guthrie and Chen's (1986) speculation that Miles and Snow's typology could be seen as sequential stages of strategy development in which defender strategies are linked to small firms while prospector strategies are linked to larger firms.

The statistical results obtained from this study show that organizational strategy type is a key determinant of small and medium scale business performance. The result shows that small and medium scale business performance is positively associated with a prospector strategy and an anxious analyzer strategy. The result also showed that a domain defender strategy is associated with low performance while a negative performance is associated with a reluctant reactor strategy. This result suggests that the trajectory to high levels of organiz-ational performance in the small and medium business sector is partly based upon a strategy of product and market innovation and continuous searching and monitoring of the external environment for new markets and competitor moves and responding to them quickly and proactively.

By contrast, SMEs that adopt a domain defender strategy are likely to find it difficult to improve their performance while the perform-ance of those that adopt a reluctant reactor strategy is likely to lag behind that of prospectors, analyzers and defenders and ultimately lead to failure.

Limitations and suggestions for future research

This study has improved on previous methods of conducting research on the relationship between strategy and performance by including the opinions of SME owners and their staff in our measure of organizational strategy as against previous studies in the small business sector that have relied only on the views of small business owner-managers (e.g. Yunus, et. al., 2010). Inspite of this, the study reported here has some limitations. In the first place, the study made use of cross-sectional survey data. The problem with this approach is that it only gives a snapshot of the relationship between organizational strategy and performance (Boyne ad Walker, 2006) and does not provide a basis for a deeper understanding of the variables at work. The use of case study method based on longitudinal data on organizational performance might help in achieving this objective. Secondly, we have examined only SMEs in one industry sector – paint production – over a specific time period. Further research is needed to examine whether the impact of organizational strategy varies with time and across institutional and environmental contexts. The study also relied on only two measures of organizational performance. More measures can be entered into the model to see how they will respond to different types of strategy. Nevertheless, the overall evidence in this study supports the conclusion that organizational strategy has an important role to play in theorizing and explaining the relative success or failure of SMEs. The evidence also implies that SME managers can make a significant difference to the performance of their organizations through the strategies that they use.

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