Market orientation and Organizational culture's impact on SME Performance: A SEM Approach

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Abstract

The purpose of this study is to examine the relationship between market orientation and organizational culture on small and medium enterprise performance (SMEs). A quantitative approach was employed, using a cross-sectional research design. The data were collected through the self-administration method from 640 respondents. SMEs are very important to the economic growth of Nigeria, they serve as a major source of employment, contribute significantly towards the industrial establishment, an avenue for the production of intermediate goods and help in the development of craftsmanship. A model was developed based on theoretical consideration to examine the relationship. Structural Equation Modelling (SEM) was employed, which reported a significant and positive relationship between the market orientation and business performance of SMEs. Whereas, the association between organizational culture and business performance was not supported. Implications and future research directions were discussed.

1. Introduction

Small and medium enterprises are important avenues for job creation and a powerful source for innovation (Dauda & Akingbade, 2010, Shehu & Mahmoud, 2014a). SMEs play a significant role in sustainable socioeconomic development of a given country in terms of contribution to GDP, provision of employment, generation of wealth, poverty reduction, competence building and enriching the welfare of people through the provision of goods and services including education (Kanyabi & Devi, 2011). SMEs in Nigeria has been an avenue for job creation and empowerment of citizens proving about 70% of all job opportunities and also for wealth formation (Shehu & Mahmoud, 2014b). The sector had its own share of problems as identified by (Oluboba, 2002), which includes: poor market orientation, low level of entrepreneurial skills, poor management policies, societal and attitudinal problems, constrained access to money and capital markets, low equity participation from the promoters because of insufficient personal savings due to their level of poverty and low return on investment, inadequate equity capital, poor infrastructural facilities, high rate of enterprise mortality, shortage of skilled manpower, multiplicity of regulatory agencies, societal and attitudinal problems, bureaucracy, integrity and transparency problems, lack of access to information given that it is costly, time consuming and difficult at times.

Therefore, the paper is organized as follows: section two provides the problem statement; section three is about the literature review, the next section discusses methodology, including research design, population and sampling technique, and the measurement of variables; section five lament on the conclusion and recommendations; section six provides the limitations, direction for future studies and the implications for the study.

2. Problem Statement

Several studies have been conducted on the market orientation to performance relationship, but there exists a mixed finding. Some of the studies that reported a positive and significant relationship between the two constructs includes Slater and Narver (2000); Shoham and Rose (2001); Pelham and Wilson (2001); Agarwal and Dev (2003); Wei and Morgan (2004); Grainer and Padanyi (2005); Tajeddeni, Trueman and Larsen (2006); Snoj, Milfelner and Gabrijan (2007); Jaiyeoba (2014). Au and Tse (1995) reported a negative association between market orientation and business performance; whereas, the study of Mokhtar, Yusoff and Ahmad (2014); Oztoran, Ozsomer and Pieters (2014) found a mixed findings between MO – performance relationships. Therefore, market orientation orientation to performance relationship studies is inconclusive. Therefore, this research attempt to extend the MO, OC to the business performance relationship.

3. Literature Review

3.1 Market orientation and Business performance

Several studies conducted on the relationship between market orientation and business performance produced mixed findings. The study of Lings and Greenley (2009) examined the impact of internal and external market
orientations on firm performance with three thousand five hundred firms providing multiple product line in the supermarket, department stores, clothing retailers, and health and beauty products of UK retail managers as samples and SEM for data analysis. The outcome of the study shows a significant association between internal market orientation, employee motivation and external marketing success. Also established a positive impact of external market orientation on customer satisfaction and financial performance. Dauda and Akingbade (2010) examined different methods of market orientation and how it could be employed for improved SMEs performance in Lagos State- Nigeria, using a survey questionnaire administered on SMEs with regression method as tool for data analysis. The research findings show that many SMEs that engage in market orientation recorded substantial progress, thereby establishing a significant association between MO and small business enterprises performance. Similarly, the findings of Ihinmoyan and Akinyele (2011), and Kumar, Jones, Vetkatesan and Leone (2011), all reported a positive relationship between market orientation and performance. Lam, Lee, Ooi and Lin (2011) established significant positive relationship between strategic orientations and market performance. Kaya and Patton (2011) in their study of one hundred and thirty five operating in different industries in Turkey, which include metal, automotive, chemistry, machine and equipment, textile as well as food. The result reveals that market orientation is associated with innovative performance. The finding of Jyoti and Sharma (2012) in their study on market orientation and business performance relationship. They reported a significant association between market orientation and business performance, and also a significant indirect relationship of employee and customer satisfaction in the relationship between market orientation and business performance. Oyedijo, Idris and Aliu (2012) equally investigated the impact of marketing practices on the performance of small business enterprises; empirical evidence from Nigeria. Their sample made up of five hundred and forty five businesses/ senior staff in Lagos-Nigeria, using survey questionnaire and analysis of variance (ANOVA) as a method of analysis. The finding of their study shows a linkage between marketing practices and overall firm performance.

However, the study of Jaiyeoba (2014) established a significant positive relationship between market orientation behaviors in service firm’s in Bostswana and both the economic and non – economic performance. Similarly, Webster, Hammond and Rothwell (2014) investigated the market orientation effect on business performance of business schools that register with the association of advance collegiate schools of business in US. One hundred and sixteen academic vice president and one hundred and thirty one deans were the respondents. The finding from their study indicated a significant and positive relationship between market orientation and business performance. Additionally, the study of Kelson (2014) reported a significant relationship between market orientation and business performance of twenty four listed companies in Ghana.

In contrast, Demirbag, Lenny Koh, Tatoglu and Zaim, (2006), conducted a study on market orientations impact on SMEs performance, using structural equation modeling for data analysis, with one hundred and forty one SMEs operating in the Turkish textile industry. They found no significant relationship between market orientation and organizational performance, the only relationship established was between market orientation and organizational performance with the mediation of total quality management. Haugland et al., (2007) conducted studies on MO and firm performance in the service industry. The sampling border is the Dunn and Bradstreet data base which consisted of accounting information for all the Norwegian limited companies and it include five hundred and thirty hotels registered in the data base. The findings indicated that MO has only an uncertain consequence of absolute productivity and no effect on return on assets. Similarly, the study of Mokhtar, Yusoff and Ahmaid (2014) with a sample of one hundred and forty SMEs in Malaysia, reported a mixed finding on a key element of market orientation. Customer focus and market dissemination were found to have a positive relationship, whereas, market intelligence and responsiveness were found to have a negative association. Based on these arguments, we proposed:

H: There is a significant association between market orientation and business performance among Nigerian SMEs

3.2 Organizational culture and Business performance

Several studies have been conducted in relation to organizational culture and performance and some of the findings reported significant relationship between the two constructs, others negative while there are also reported mixed findings. Lopez, Manuel and Ordas (2004) argued on managing knowledge the link between culture and organizational learning. Samples of one hundred and ninety five Spanish companies were selected, using postal survey questionnaires and SEM for data analysis. The findings of the study indicated that the collective culture encourages the development of organizational learning which has a significant effect on business performance thus; evidencing a positive relationship between OC and performance. Kyriakos, Meulenberg and Nilson, (2004) assessed the impact of cooperative structures and firm culture on market orientation and performance with a sample of Dutch cooperative enterprises drawn from the list obtained by
National cooperative council for agriculture and horticulture using surveys. Their result indicated a significant association between entrepreneurial culture and market orientation

Berson, Oreg and Dvir (2005) investigated chief executive officers values and organizational performance of twenty six companies. The finding indicated that organizational culture is a good mediator on the relationship between CEO values and organizational performance. Xenikou and Simosi (2006) examined transformational leadership, culture and business performance, using a sample of three hundred employees of large financial companies in Greece. The finding of the study shows that cultural orientation had a direct effect on overall business performance. Shah et al., (2011) examined the influential role of culture on leadership effectiveness and organizational performance in Pakistan. Their findings indicated a significant and positive relationship between culture and performance. Similarly, Slater, Olson and Finnegan (2011) in their study of business strategy, culture, and performance used a sample of senior marketing managers with five hundred and above employee with the use of the questionnaire as a research instrument. They found that cultural orientation play a role in creating superior performance, evidencing significant and positive relationship between culture and performance. Yazici (2011) surveyed project manager; engineers; and executive from seventy six US firms. The finding indicated that a clan or group culture facilitates a cohesive, high performing team work environment, which result in improved project and business performance. Mujeeb and Ahmad (2011) empirically tested the relationship between component of organizational culture and performance management practices, and reported significant and positive relationship between elements of organizational culture and performance management practices.

Some studies, however, reported a negative relationship between organizational culture and firm performance. Gleason, et al., (2000) reported a significant negative relationship between culture, capital and performance, when they conducted a study on the relationship between culture and performance. The data were generated from fourteen European countries using retailers, grouped into four different clusters through secondary data. Lee, Yoon, Kim and Kang (2006) investigated the effects of market-oriented culture and marketing strategy on firm performance with one hundred and twenty samples of businesses using the survey as an instrument. The data were collected using both qualitative and quantitative approaches. Regression and structural equation model were used for data analysis. The result found that MO culture does not affect firm performance.

Navarro and Moya (2007) investigated learning culture using survey questionnaire and structural equation modeling. The sample collected made up of two hundred and sixty nine SMEs in two sectors that is the Spanish optometry sector and the Spanish telecommunications sector respectively. They reported a negative association between the culture of these two sectors and market orientation to performance. However, there are many studies with mixed findings. Mudili (2011) examined the performance based reward and national culture from Indian culture, using questionnaire, survey, and regression methods. The sample used is the executive officers of companies, the outcome of the study reported to have a mixed results. Three out of four cultural dimensions supported the relationship between culture and performance, whereas one item is found to have reported a negative relationship between organizational culture and performance. Based on this argument, we proposed: H2: There is a significant association between organizational culture and business performance among Nigerian SMEs

4. Methodology

4.1 Research Design
A cross – sectional research design was employed where a data was collected in only a given point in time (Kumar, Abdul Talib & Ramayah, 2013; Zikmund, Babin, Car & Griffin, 2013; Sekaran & Bougie, 2013. A Quantitative research approach was adopted (Sekaran, Robert & Brain, 2001), which was mostly used in social sciences. Previous studies that employed quantitative research method includes: Kheng, June and Mahmoud (2013), Shehu (2014), Al – Sardia and Ahmad (2014), Shukr Bakar and Mahmood (2014).

4.2 Population and Sample
A total of 1829 SMEs fully operational in Kano – Nigeria is considered to be the population of the study (SMEDAN, 2012). Systematic sampling technique was used in selecting 320 respondents using Kriecie and Morgan (1970) which was later increased to 640 as recommended by Hair, Wolfinger and Ortinal (2008), Sekaran, et al., (2001).

The unit of analysis for this study is at the organizational level, which cover the entire SME owner/managers. A self – administered questionnaire also called drop- off and pick procedure served as the data collection method. The present study has a response rate of 79.8 percent, which is considered adequate (Al – Sardia & Ahmad, 2014;
Sekaran et al., 2001).

4.3 Measurement

All variables were measured in this study using the 5-point scale, ranging from 1 (strongly disagree) to 5 (strongly agree) based on the previous works of Amin and Khan (2009), and Al – Sardia and Ahmad (2014) Shehu (2014). There are three variable in this study, which includes business performance, a total of six items adopted from Suliyanto and Rahah (2012). Market orientation measures were adopted from Suliyanto and Rahab (2012) with twelve items, organizational culture, eighteen items adopted from Al - Swidi and Mahmood (2012).

**Figure 1. Measurement Model**

**Figure 2. Hypothesized Model**
4.4 Analysis Method
The data were analyzed using the structural equation modelling (SEM) procedure to test the model using AMOS 18.0 packages (Maximum likelihood estimation) was used to carry the analysis (Hair, Black, Babin, & Anderson, 2010). Previous studies of Eris and Ozmen (2012), Gorondutse and Hilman (2013), Suliyanto and Rahab (2012) adopted SEM as data analysis technique.

4.5 Goodness of Measures
In this study the construct reliability is assessed by computing the composite reliability (CR) for each construct after employing the maximum likelihood estimation. Fornell and Larker (1981) criteria was taken in to account in the computation of CR index along side with the reliability calculation as illustrated in Table 1. Consequently, the average variance extracted (AVE) were assessed for each construct (Anderson, 1982; Bagozzi & Lynn, 1982; Fornell & Larcker, 1981; Hair, Anderson, Tatham & Black, 1998). AVE was used to measure convergent validity (Fornell & Larcker, 1981; Hair et al., 1998) suggested convergent measures should contain less than 50 percent error variances meaning that AVE should be 0.5 or above. Hair et al., (1998; 2010) cutoff value of 0.70 and 0.50 for CR and AVE respectively was employed. The CR value ranges from 0.764 to 0.680, and the factor loadings were between 0.512 to 0.896 (p < 0.05), and the AVE ranged from 0.523 to 0.679 which has met the minimum threshold set (Fornell & Larcker, 1981; Hair et al., 1998). The Average variance extracted was used in this study in order to assess the convergent validity as recommended by Hair et al., (2010). The test show how the indicators of the construct converged and share the same variance. In a nutshell, the indicators are expected to converged and share a high proportion of variance on a common point, the latent constructs.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Indicator</th>
<th>Factor loading</th>
<th>Composite reliability</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market Orientation</td>
<td>MO10</td>
<td>0.822</td>
<td>0.764</td>
<td>0.523</td>
</tr>
<tr>
<td></td>
<td>MO09</td>
<td>0.609</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>MO08</td>
<td>0.723</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business Performance</td>
<td>PER01</td>
<td>0.866</td>
<td>0.679</td>
<td>0.679</td>
</tr>
<tr>
<td></td>
<td>PER02</td>
<td>0.900</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PER04</td>
<td>0.556</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PER05</td>
<td>0.642</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PER06</td>
<td>0.659</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organizational Culture</td>
<td>OC16</td>
<td>0.512</td>
<td>0.680</td>
<td>0.532</td>
</tr>
<tr>
<td></td>
<td>OC14</td>
<td>0.896</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The study also assesses the discriminant validity. Discriminant validity as the name implies, is fundamentally concerned with the degree to which a given construct is different from other construct (Hair, et al., 2010). Consequently, high level of discriminant validity shows that the latent construct is unique and captures some phenomena as against others. One of the ways of computing discriminant validity is to compare the square root of a given construct with the whole correlation of that construct, and AVE is expected to be greater than the construct correlation (Fornel & Lacker, 1981). Table 2 below indicated that all the square root of AVE ranging between 0.723 to 0.824 were greater than the value of the construct in the correlation matrix. Hence, this indicated that all constructs share more variance with their items than with other constructs, hence supporting discriminant validity.

<table>
<thead>
<tr>
<th>Variable</th>
<th>OC</th>
<th>BP</th>
<th>MO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organizational culture</td>
<td>0.723</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business performance</td>
<td>.048</td>
<td>0.824</td>
<td></td>
</tr>
<tr>
<td>Market orientation</td>
<td>.151</td>
<td>.272</td>
<td>0.729</td>
</tr>
</tbody>
</table>

Note: The value in the diagonal is the square root of AVE

4.6 Model Testing
The model fit was assessed using a series of indices recommended by Hair etal., (2010), Brian (2006), – the DELTA2 (Bollen, 1989), Comparative fit (CFI) ( Bentler,1990), good-of-fit index (GFI), Tucker-Lewis (TLI), and the root mean square error of approximation (RMSEA) indices. A fit to the data was achieved for the GFI =
0.911 as indicated in table 3.

Table 3. Fit indices for the Measurement Model

<table>
<thead>
<tr>
<th>Fit Indexes</th>
<th>Expected Values</th>
<th>Achieved Values</th>
<th>Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>DF</td>
<td>32</td>
<td></td>
<td></td>
</tr>
<tr>
<td>X²</td>
<td>189.314</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bollien – stine P</td>
<td>&lt;0.05</td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td>X²/df</td>
<td>5.916</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GFI</td>
<td>&gt;0.90</td>
<td>0.911</td>
<td>Hair et al (2010), Brain (2006).</td>
</tr>
<tr>
<td>AGFI</td>
<td>&gt;0.90</td>
<td>0.848</td>
<td></td>
</tr>
<tr>
<td>CFI</td>
<td>&gt;0.90</td>
<td>0.882</td>
<td></td>
</tr>
<tr>
<td>RMSEA</td>
<td>&lt; 0.08</td>
<td>0.105</td>
<td></td>
</tr>
<tr>
<td>TLI</td>
<td>&gt;0.95</td>
<td>0.834</td>
<td></td>
</tr>
</tbody>
</table>

4.6 Hypothesis Test and Discussion

Hypothesis test was done by the use of structural Equation Modelling (SEM) of which the result is listed in table 4. Based on the result of the table, it shows the path coefficient variable of market orientation to business performance CR is 3.472 at 95 percent confidence level (one end). Thus, the first hypothesis is accepted evidencing significant and positive relationship between market orientation and business performance of SMEs.

The result supported the previous findings of Grainer and Padanyi (2005) in their study on market oriented activities and market oriented culture reported an important association between market orientation behavior and organizational performance. Kara et al., (2005) in their work on the effects of a market orientation on business performance: a study of small sized service retailers using Markor scale. A sample of one hundred and fifty three owner/managers from three states of US was used. The findings of their study reported an important linkage between market orientation and small sized retailer performance. Hence, this is in line with the finding of the present study. Li et al., (2008) reported a positive and significant linkage between market orientation and performance in a study conducted on the moderating effects of entrepreneurial orientation on the relationship between market orientation and performance linkage: evidence from Chinese small firms. Gaur et al., (2009) examined the relationship between market orientation and manufacturing performance for small and medium enterprises in India. Their finding, reported significant association between market orientation dimensions of customer orientation, inter – functional coordination and manufacturing performance in the Western region of India. Rettab and Mellahi (2011) investigated two thousand two hundred small firms from Dubai, through a mail survey and reported a significant positive relationship between market orientation and business performance. Eris and Ozmen (2012) examined market orientation and firm performance of the Turkish logistics sector, with survey questionnaire and structural equation modeling for data analysis. The finding of the study reported a significant association between market orientation and firm performance of the Turkish logistics sector. Arshad and Othman (2012) examined the effects of corporate social responsibility and market orientation on firm performance. The result of the study shows that market orientation significantly predicts firm performance.

The path coefficient of organizational culture to business performance CR is 1.453 at 95 percent confidence level. Thus, the second hypothesis is rejected, showing that organizational culture does not have any association with the business performance of SMEs. This finding is supported by the previous finding of Li et al., (2006) in their study on the integrated effect of market oriented culture and marketing strategy on firm performance. The results show that market oriented cultures does not significantly affect firm performance. In the same vein, Gleason et al., (2000) reported a significant negative relationship between capital and performance. Navarro and Moya (2007) reported a negative association between organizational culture and performance. Similarly, Karyeija (2012) reported a negative association between culture and performance. This is also in line with the finding of Lo (2012). The finding of Mudili (2011) appeared to be mixed, three out of four cultural dimensions supported the relationship between organizational culture and performance, whereas, one dimension is found to be negatively related between organizational culture and performance. The finding of Veldez (2011) seems to have produced mixed results between the two constructs.
Table 4. Hypothesis Test

<table>
<thead>
<tr>
<th></th>
<th>Estimate</th>
<th>S.E.</th>
<th>C.R.</th>
<th>P</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>M ←→ BP</td>
<td>0.085</td>
<td>0.024</td>
<td>3.472</td>
<td>***</td>
<td>Supported</td>
</tr>
<tr>
<td>BP ←→ O</td>
<td>0.063</td>
<td>0.043</td>
<td>1.453</td>
<td>0.146</td>
<td>Not supported</td>
</tr>
</tbody>
</table>

5. Conclusion and Recommendation

The finding from the study indicated that market orientation has a positive effect on business performance of SMEs, whereas, the organizational culture to business performance relationship was found not supported. The study recommends the improvement of business performance of small and medium enterprises (SMEs) performance through an increase in the degree of market orientation by gathering customer and competitor informations as well as ensuring a sound coordination among functions; as market orientation to performance relationship is supported it can be a source of competitive advantage to improve business performance of SMEs.

6. Limitations, Future Research Direction and Implications

The present study used a cross-sectional design, where the data were only collected at a point in time. Future studies may use a longitudinal survey design. The entire SME is considered based on the 12 classification by small and medium enterprise development agency (SMEDAN, 2012), the impact of market orientation and organizational culture of specific SME sector is suggested. However, other variables such as alliance orientation, total quality management can be introduced to either moderate or mediate the relationship between strategic orientations and business performance relationship of SMEs.

The theoretical implication can be that the study extends the existing body of knowledge by examining market orientation, organizational culture relationship to business performance of SMEs. It has also tested instrument that were developed and validated in US and Europe in the African context. Some of the managerial implications can be that the owner/managers of SMEs tend to benefit from the outcome of the study. It will equally help SME regulatory agencies such as small and medium enterprise development agency (SMEDAN) in policy and curriculum development.

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