Influence of Entrepreneurial Orientation and Business Environment on Small and Medium Firm Performance: A PLS Approach

Aliyu Mukhtar Shehu¹ and Rosli Mahmood²

Abstract

The purpose of this study is to investigate the relationship of entrepreneurial orientation and business environment on firm performance, underpinned by Resource based view. Their relationship receives a considerable scholarly attention in the literature, but few studies have been conducted among Nigerian SMEs. SMEs are considered as important to the economic growth of Nigeria and they constitute the major source of employment and significantly contribute to the gross domestic production. Based on the theoretical consideration, a model was proposed to examine this relationship. A quantitative method was used with a total of 640 questionnaires personally distributed to the owner/managers of SMEs in Nigeria. A total of 511 questions was duly completed and returned representing 79.8% response rate. The study finding is in support of previous researchers who have suggested the positive relationship of entrepreneurial orientation and firm performance in many organizations. The finding from the study indicated no relationship between the business environment and firm performance. The finding from this study will benefit SME owner/managers, regulatory agency ie small and medium enterprise development agency of Nigeria, it will also help in policy formulation and will serve as a frame of future reference.

JEL classification numbers: L26

Keywords: Entrepreneurial orientation (EO), Organizational culture (OC), Firm performance (FP), SMEs, Nigeria.

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1 Introduction

The entrepreneurial spirit is considered to be the engine for economic growth (Mohammad, Ramayah, Puspowarisito, Natalisa & Saerang, 2011). Studies on entrepreneurial orientation and firm performance appeared to have produced mixed findings. Khalid, Kassim, Isma'il, Zain and Madar (2009), Merlo and Auh (2009), Clercq et al., (2010), Faizol et al., (2010) reported a significant and positive relationship between entrepreneurial orientation and firm performance. Anderson (2010) reported a negative association between entrepreneurial orientation and firm performance, whereas, Ambad and Abdul Wahab (2013) findings indicated a mixed result of the EO – performance relationship. Thus, EO – performance relationship are inconclusive and suggests the need for further research. Similarly, the business environment has been widely studied in its relationship with firm performance. The findings also appeared to be mixed. Hence, the BE – performance relationship is also inconclusive. The study of Dale – Olsen (2012) established no significant impact of wage environment on the relationship between pay determination and firm performance of Noeweigian firms. Abd Aziz (2010) reported a negative association between external environmental factors and firm performance. However, the study of Zamora, Benito and Gellogo (2013), and Khalid and Khatib (2014) reported a significant and positive relationship between the business environment and firm performance.

Thus, the aim of this study is to examine the relationships between entrepreneurial orientation, business environment and the performance of small and medium enterprises in Nigeria. Specifically, the objectives of this study are: (a) to determine the significant relationship between entrepreneurial orientation and firm performance, (b) to determine the significant relationship between business environment and firm performance.

2 Related Literature and Research Hypotheses

2.1 Entrepreneurial Orientation

There have been a number of studies in the entrepreneurship field and entrepreneurial orientation in particular, most of these studies were conducted in US and others in Europe (Frank, Kessler & Fink, 2010; Wales, Gupta & Mousa, 2011). Lan and Wu (2010), signified EO as the willingness to engage in a more innovative, risky as well as uncertain activities in the market place, accurately discover new opportunities before their competitors. Miller (1983) offered one of the earliest conceptualization of EO concept. He viewed entrepreneurial firm as one that actively participate in product innovation, engages in risky ventures and be among the leaders in proactive innovation. Morris and Paul (1987) defined EO as the tendency of a firm’s top executive to take calculated risks, be creative, and proactive. Investigators have used this operationalization and measure EO from innovativeness, risk-taking, and proactiveness in their works (Tan 1996; Covin & Slevin 1989; Morris & Paul 1987). Additionally, Wiklund (1999) asserted that most researchers come to an understanding that entrepreneurial orientation is a combination of three dimensions namely: innovativeness, proactiveness and risk-taking. Indeed, many studies (Covin & Slevin 1989; Naman & Slevin 1993) follow this three dimensional model created by Miller (1983). Research by Stetz et al. (2000), Kreiser et al. (2002) and Hughes and Morgan (2007) have shown that the dimensions can vary independently from each
other. However, only a few researchers allow the dimensions described above to vary within their model and create accurately multidimensional EO model. The discussion lies in not whether the dimensions can differ from each other but is based on the belief that an entrepreneurial firm should score on all three dimensions (Covin et al. 2006). The EO dimension of innovativeness is about pursuing and giving support to novelty and originality, creative processes and the development of new ideas through experimentation (Lumpkin and Dess 1996). The second dimension is proactiveness. Proactiveness refers to processes which are aimed at seeking new opportunities which may or may not be related to the present line of operations, introduction of new products and brands ahead of competition and strategically eliminating operations which are in the mature or declining stages of the life cycle (Venkatraman 1989). Actually, proactiveness concerns the importance of initiative in the entrepreneurial process. A firm can create a competitive advantage by anticipating changes in future demand (Lumpkin & Dess 1996), or even shape the environment by not being a passive observer of environmental pressures but an active participant in shaping their own environment. The third dimension, risk-taking, is often used to describe the uncertainty that follows from behaving entrepreneurially. Entrepreneurial behaviour involves investing a significant proportion of resources to a project prone to failure. The fundamental emphasis is on calculated risk-taking instead of extreme and uncontrolled risk-taking (Morris et al. 2008) but the value of the risk-taking dimension is that it orients the firm towards the absorption of uncertainty as opposed to a over burden fear of it.

2.2 Business Environment

The surroundings in which business operate is very compound, ever-changing and competitive in nature (Lee, Lim & Pathak 2011). Business environment (BE) is the set of norms and ethics, legal and governing frameworks, and the overall policy conditions that set rules for conduct of business, and influence positively or negatively the outcome of markets, flow of investment, factor productivity, and the cost of doing business, these can either be from both internal or external settings and affect the smooth operation and function of an organization (Essia 2012). According to Duncan (1972) business environment is considered to be the combination of physical and social factors that is reflected in the individual organization. Slevin and Covin (1995) developed the following environmental dimensions. These include: dynamic, hostility, technological sophistication and industry life cycle stage. Dynamic environmental dimension comes from the changes in key operating variables such as market and industry, economic, political, technology and other social forces. Environmental hostility is the level to which environment forces threat to the business organization due to issues like intense competition, lack of adequate exploitable opportunities. Industry technology sophistication refers to the degree of technological advancement in the real production process in producing a given products. Industry life cycle stage represents the period of product life cycle faced by the organization products or services. These stages consist of introductory/pioneering, growth, maturity and decline respectively.

2.3 Entrepreneurial Orientation and Firm Performance

There are a lot of research taking about the relationship between entrepreneurial orientation and organizational performance. Some of the research established a significant
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and positive relationship includes Khalid, Kassim, Isma’il, Zain and Madar (2009) did a study of entrepreneurial orientation and performance relationships of Malaysians Bumiputera SMEs. The sample was drawn from two hundred and ten SMEs from Malaysia, using survey questionnaire. The findings of their study indicated a significant association between EO and a firms’ performance. According to Merlo and Auh (2009) in their study on the effect of EO, MO and marketing sub-unit influence on firm performance. Survey questionnaire is used as a study instrument and regression methods for data analysis. The sampling frame comes from the Australian mailing list, made up of a random choice of six hundred contacts in small organizations with fifty and above employees in a number of manufacturing firms which includes; food and associated products, chemical and associated products, fabricated iron products, industrial machinery and computer equipment, printing and publication as well as rubber and soft products. The findings indicated that the higher the level of EO, the more positive interaction between MO and market subunit influence, hence to overall performance. Faizol, Hirobuni and Tanaka (2010) examined entrepreneurial orientation and business performance of small and medium scale enterprises of the Hambantota district of Sri Lanka. A Sample of manufacturing companies were selected with total fixed assets of twenty million Sri Lankan Rupees (LKR) or less, excluding land and building and the number of employees ranges from five to less than one hundred and fifty in accordance with the definition of SMEs by the National Development Bank of Sri Lanka. There are one hundred and twenty five listed small and medium enterprises and twenty five manufacturing SMEs selected. Both qualitative and quantitative methods were employed using multiple regressions for data analysis. The result shows a strong linkage between the two constructs. Similarly, Clercq, Dimov and Thongpanl (2010) investigated two hundred and thirty two Canadian based firms, and reported a significant relationship between entrepreneurial orientation and performance. Devis, Bell and Krieser (2010) examined the influence of top manager’s prestige, structural and expert power on the relationship between EO and firm performance, using survey questionnaire and regression methods for data analysis. The finding of the research signifies a strong positive relationship between EO and a firm performance. In a study conducted by Lan and Wu (2010) examined whether entrepreneurial orientation would affect enterprises’ internationalization strategies and their success, using survey interview of two hundred enterprises with regression methods for data analysis. The findings of the study indicated that EO is positively connected to the degree of internationalization, and performance. However, there are other studies that reported a negative association between entrepreneurial orientation and performance of organizations. Anderson (2010) in his seminal work employed a sample of one hundred and seventy two SMEs from the manufacturing sector in Sweden. He asserted that previous studies were short of considering other factors of entrepreneurial orientation to performance relationship like perceptual performance data, common method biases, as well as survival bias. The result from this study indicated a negative relationship between entrepreneurial orientation to performance in terms of growth and profitability. Additionally, so many studies established a mixed findings on the association between entrepreneurial orientation and firm performance. Tang and Tang (2012) study among one hundred and fifty five SMEs in northern China confirmed the entrepreneurial orientation to performance inverted U-shape relationship. However, Ambad and Abdul Wahab (2013) examined the entrepreneurial orientation of large firms in Malaysia, which employed partial least square for the data analysis. They reported a mixed finding as innovativeness and risk taking
positively affect performance, while, proactiveness was found to negatively affect firm performance. Similarly, Arunchalan, Ramaswani, Herrmann and Walker (2013) investigated entrepreneurial orientation, innovation and firm performance. They reported that the relationship between entrepreneurial orientation and firm performance is a curvilinear with an inverted U – shape which means a negative association between the constructs. Lechner and Gudmundson (2014) examined a sample of three hundred and thirty five firms randomly selected from Icelandic firms. They also reported a mixed finding on entrepreneurial orientation dimensions, firm strategy and performance relationship. Innovativeness was positively related to differentiation; risk taking and aggressiveness were negatively associated with both differentiation and cost leadership. The inconclusiveness in result about EO – performance, lead us to examine this relationship. Therefore, the following hypothesis is proposed to test this relationship:

\( H_1: \) Entrepreneurial orientation has a positive significant effect on firm performance.

2.4 Business Environment and Firm Performance

Literature of business environment appeared to produce mixed findings. Essia (2012) conducted a conceptual study on business environment and competitiveness in Nigeria – considerations for Nigeria’s vision 2020, and asserting the need for sound economic governance with highly skill oriented, core capability driven, and holistic and even University graduates require further training to enhance their applied relevance and professional skills. Lucky and Minai (2012) re-investigated the effects of external factor and firm characteristics on small firm performance during economic downturn. External factors of business environment were used as an independent variable in the study. A survey questionnaire was used as an instrument with the regression method for data analysis. The findings reported a good relationship between external factor and performance. Njaja, Ogutu and Pellisher (2012) examined the effect of the external environment on internal management strategies in Kenya, using mixed method and survey research design. Samples of eight provinces were used with simple regression as a method for data analysis. The finding of the study indicated significant influence of external environmental factors on firm performance.

In (2012) Ho, Wang and Vitell did a global analysis of corporate social performance with the effects of culture and geographic environment. A global CSP data base of companies from forty nine countries was used. The findings established that Hofstede cultural dimensions are positively related to CSP. Europe companies were found to outperform other countries and regions in CSP. The study of Yang, Wang, Zhu and Wu (2012), surveyed over five hundred senior executives of manufacturing and service firms in China. A cluster ordinary least square analysis was used. The result reveals that environment (technology) has a significant and positive influence on product innovation. Similarly, Babatunde and Adebisi (2012) examined strategic environmental scanning and organizational performance in a competitive business environment. They used a structural questionnaire for data collection with regression and correlation coefficient for data analysis. The finding of the study indicated a significant positive relationship between strategic environmental scanning and organizational performance. However, the finding of Jalali (2012) established that environmental determinants (hostility, turbulence and uncertainty) are important predictors of export performance. Additionally, Jorgensen, Konchitchki, Burgrazel and Sadka (2012) examined how a country’s legal environment affects the performance of its publicly and privately held firms of twenty eight countries.
They reported that publicly traded firms are significantly more profitable than privately held firms in countries with higher corruption, lower protection of property right and less efficient business environment. Additionally, Tsuja and Marlíio (2013) assessed the influence of the business environment on organizational innovation in service companies in Peru. They reported that uncertain environment promotes technical innovation; complex environment promotes both administrative and technical innovations; organizational characteristics partially mediate the relationship between administrative and technical innovations. Similarly, the study of Iyer, Srivasto and Rawwas (2014) which align supply chain relational strategy with the market environment and implications for operational performance. A sample of one thousand four hundred and forty Chief executive officers was used as respondents, with smart PLS for data analysis and through mail questionnaire survey. The finding reported that resource specificity, resource complimentarily, and collaboration has significant positive association with market environment. These conflicting mixed result between business environment and firm performance call for more research, therefore, the following hypothesis is proposed:

\[ H_2: \text{Business environment has a positive significant effect on firm performance} \]

### 3 Methodology

#### 3.1 Research Design

The study employed cross-sectional research design since data was collected in a single point at a given time (Kumar, Abdul Talib & Ramayah, 2013; Zikmund, Babin, Car & Griffin, 2013; Sekaran & Bougie, 2013). The study also adopts quantitative research approach (Sekaran, Robert & Brain, 2001), which was mostly used in social sciences. Other previous studies used quantitative research method, Amin and Khan (2009), Khurshid (2008), Ogbonna and Osiki (2007), Kheng, June and Mahmood (2013), Al– Sardia and Ahmad (2014), Shukr Bakr and Mahmood (2014).

#### 3.2 Population and Sampling Technique

The population of this study covers the entire 1829 SMEs (SMEDAN, 2012) fully operational in Kano – Nigeria. Systematic sampling technique was adopted to select 320 respondents using Krejcie and Morgan (1970) which was later doubled to 640 as recommended by Hair, Wolfinger and Ortinal (2008), Sekaran, et al., (2001). The unit of analysis for this study is at 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).

#### 3.2 Measurement of Constructs

In this study, all variables were measured using the 5-point scale, ranging from 1 (strongly disagree) to 5 (strongly agree) based on the previous works of Zhang and Fang (2000), Amin and Khan (2009), and Al– Sardia and Ahmad (2014). There are three variable in this study, as regard to firm performance, a total of six items adopted from Suliyanto and Rahah (2012). Entrepreneurial orientation measures were adopted from
Idar and mahmood with nine items, Business environment, twelve items adopted from Abd Aziz (2010).

4 Statistical Analysis and Result

4.1 Content Validity

The content validity of a construct signifies that all the items designed to measure a particular construct should have a high loading in the construct were designed to measure. Thus, factor loading could be used to assess the content validity as recommended by Hair, et al., (2010) and Chin (1998). However, if some items load on some other construct, the items will be deleted. Table 1 indicated that all the variable significantly loaded on their respective constructs.

Table 1: Cross – loading of the items

<table>
<thead>
<tr>
<th></th>
<th>Per</th>
<th>EO</th>
<th>BE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Per01</td>
<td>0.868844</td>
<td>0.218527</td>
<td>0.000323</td>
</tr>
<tr>
<td>Per02</td>
<td>0.88553</td>
<td>0.242641</td>
<td>-0.003682</td>
</tr>
<tr>
<td>Per04</td>
<td>0.708606</td>
<td>0.189499</td>
<td>0.009771</td>
</tr>
<tr>
<td>Per05</td>
<td>0.704703</td>
<td>0.116532</td>
<td>0.033306</td>
</tr>
<tr>
<td>Per06</td>
<td>0.751985</td>
<td>0.183091</td>
<td>0.036975</td>
</tr>
<tr>
<td>EO01</td>
<td>0.252051</td>
<td>0.876643</td>
<td>0.143975</td>
</tr>
<tr>
<td>EO05</td>
<td>0.112653</td>
<td>0.654517</td>
<td>0.163651</td>
</tr>
<tr>
<td>BE08</td>
<td>-0.00449</td>
<td>0.167948</td>
<td>0.686737</td>
</tr>
<tr>
<td>BE10</td>
<td>0.024534</td>
<td>0.163686</td>
<td>0.775522</td>
</tr>
</tbody>
</table>

4.2 Convergent Validity

Bagozzi, Yi and Philips (1991) and Hair et al., (2010), defined convergent validity as the extent to which a set of variables meets in measuring the concept on the construct. The convergent validity can be established, based on SEM literature, by using items reliability, composite reliability and the average variance extracted. That is, the item of each construct are highly loaded and statistically significant in measuring their respective constructs with at least 0.7 factor loadings, composite reliability is at least 0.7 and the average variance extracted (AVE) is at least 0.5 (Bagozzi, et al., 1991; Hair, et al., 2010).

Table 2. shows that the average variance extracted values are more than 0.5 and the composite reliability values of the constructs exceeded the recommended value of 0.7, it can be confirmed that the measurement model has an adequate level of convergent validity.
Table 2: The result of convergent validity analysis

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Items</th>
<th>Loadings</th>
<th>Cronbach's Alpha</th>
<th>Composite Reliability</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firm performance</td>
<td>Per01</td>
<td>0.868844</td>
<td>0.82</td>
<td>0.89</td>
<td>0.62</td>
</tr>
<tr>
<td></td>
<td>Per02</td>
<td>0.88553</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Per04</td>
<td>0.708606</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Per05</td>
<td>0.704703</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Per06</td>
<td>0.751985</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Entrepreneurial orientation</td>
<td>EO01</td>
<td>0.876643</td>
<td>0.71</td>
<td>0.74</td>
<td>0.59</td>
</tr>
<tr>
<td></td>
<td>EO05</td>
<td>0.654517</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business environment</td>
<td>BE08</td>
<td>0.686737</td>
<td>0.6</td>
<td>0.69</td>
<td>0.53</td>
</tr>
<tr>
<td></td>
<td>BE10</td>
<td>0.775522</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4.3 Discriminant Validity

Discriminant validity refers to the degree to which a set of items can different a construct from other construct. In examining discriminant validity of the measurement model, the Fornell and Lacker (1981) criteria was used. Table 3. Indicate the correlation matrix in which the diagonal element represent the square root of the average variance extracted of the latent constructs. The result of the correlation matrix indicated in the table below ensures that the discriminant validity is confirmed.

Table 3: Correlation matrix of the variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>BP</th>
<th>MO</th>
<th>OC</th>
</tr>
</thead>
<tbody>
<tr>
<td>1  Firm performance</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2  Entrepreneurial orientation</td>
<td>.300**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>3  Business environment</td>
<td>.147**</td>
<td>.364**</td>
<td>1</td>
</tr>
</tbody>
</table>

Figure 2: Measurement Model
Table 5: Hypothesis testing result

<table>
<thead>
<tr>
<th>Path Coefficient</th>
<th>Std. Error</th>
<th>T Value</th>
<th>P Value</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business env -&gt; Firm performance</td>
<td>-0.01121</td>
<td>0.143757</td>
<td>0.076</td>
<td>0.093 Not Supported</td>
</tr>
<tr>
<td>Entrepreneurial orientation -&gt; Firm performance</td>
<td>0.258846</td>
<td>0.106763</td>
<td>2.343</td>
<td>0.015 Supported</td>
</tr>
</tbody>
</table>

***: P<0.001, **: P<0.01, *P<0.05

4.4 Predictive Relevance of the Model

Cross-validated redundancy values were used to evaluate the model quality. Running Blindfolding procedures in smart PLS generates cross validated redundancy and cross validated communality. Chin (1988), provided a Criteria of assessing model predictive relevance a value of cross validated relevance of: a) 0.02 is small; b) 0.15 is medium; and c) 0.35 is Large. Based on this assertion, the predictive relevance of this model is 0.05 which is considered large, hence, it confirms that model has adequate prediction quality.

4.5 Goodness of Fit

The common measure of goodness of fit for PLS – SEM found in most literature is the geometric mean of the AVE and the average R² for the endogenous variable in the
following:

\[ \text{Gof: } \sqrt{(R^2 \times AVE)} \]

According to Wetzels et al. (2009) a Gof value of (0.1 is small, 0.25 is medium, 0.36 is large). Accordingly, in this study the GoF value was 0.38 which is considered large. Therefore, the result showed that the model GoF measure is substantial based on the average variance which refer as an adequate level of PLS model validity.

5 Discussion, Limitations, and Future Research Directions

The study examined the influence of entrepreneurial orientation and business environment on small and medium enterprises performance in Nigeria. The study found support for the direct relation between entrepreneurial orientation with firm performance. This result was consistent with previous study by Faizol, Hirobuni and Tanaka (2010) which examined entrepreneurial orientation and business performance of small and medium scale enterprises of the Hambantota district of Sri Lanka. A Sample of manufacturing companies were selected with total fixed assets of twenty million Sri Lankan Rupees (LKR) or less, excluding land and building and the number of employees ranges from five to less than one hundred and fifty in accordance with the definition of SMEs by the National Development Bank of Sri Lanka. There are one hundred and twenty five listed small and medium enterprises and twenty five manufacturing SMEs selected. Both qualitative and quantitative methods were employed using multiple regressions for data analysis. The result shows a strong linkage between the two constructs. Similarly, Clercq, Dimov and Thongpanl (2010) investigated two hundred and thirty two Canadian based firms, and reported a significant relationship between entrepreneurial orientation and performance. Devis, Bell and Krieser (2010) examined the influence of top manager’s prestige, structural and expert power on the relationship between EO and firm performance, using survey questionnaire and regression methods for data analysis. The finding of the research signifies a strong positive relationship between EO and a firm performance.

However, the relationship between business environment and firm performance was not supported. This finding is in line with the previous study by Aziz and Yasin (2010) reported that external environment (market technology turbulence and competitive intensity) was not a moderator of the relationship between market orientation and firm performance. Abd Aziz (2010) examined the effect of the external environment on a business model and performance relationship with the external environment dimension of (turbulence, hostility and dynamism). The finding of the study indicated none of the external environment dimensions was significant as moderator on the relationship between business model and firm performance.

Consequently, this study has only considered those SMEs operation in Kano. Future studies may consider other states, region or the country at large. A cross–sectional research design was employed, which collect data only ones. A longitudinal study is suggested, that may allow data collection activity over a long period of time. The use of other statistical packages could be used in examining this model in the future.
References


