

## The Mediating Effect of Organizational Culture on the Relationship between Entrepreneurial Orientation and Firm Performance in Nigeria

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### Abstract

The purpose of the study is to examine the mediating effect of organizational culture on the relationship between entrepreneurial orientation and firm performance in Nigerian small and medium enterprises (SMEs). 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 survey method was used, the data were collected from the owner/managers of SMEs in Kano – Nigeria. A total of 640 questionnaires distributed, 511 usable questionnaires were returned. Partial least squares structural equation modelling (PLS) was used for the data analysis. Based on the statistical findings, entrepreneurial orientation and organizational culture were significantly related to firm performance. Organizational culture was found to mediate on the relationship between EO to FP. The result of the present study has some practical implications: It will assist owner/managers of SMEs take the right decision on the importance of OC in their respective firms. The OC can help owner/managers with well-built EO to attain the maximum performance level in their organizations and remain relevant in their competitive market.

**Keywords:** Entrepreneurial orientation (EO), firm performance (FP), organizational culture (OC), small and medium enterprises (SMEs), Nigeria.

### 1. Introduction

Small and medium enterprises (SMEs) forms the larger of the world's economies (Federal office of statistics, 1994). According to Agboli and Ukaegbu (2006) SMEs forms a bigger percentage of the Nigerian economy, as it serves as a major provider of job opportunities, poverty alleviation, wealth generation as well as sustainable economic development (Dauda&Akingbade, 2010). The social and economic merits of small and medium enterprises cannot be over emphasized, Abiola (2013) sees SMEs as a source of employment, competition, economic dynamism, and innovation which in turn stimulates the entrepreneurial spirit and the diffusion of skills. Because they enjoy a wider geographical presence than big companies, SMEs also contributes to wealth creation and better income distribution. Small and medium scale enterprises have certainly upgraded the standard of living of so many people, especially those in the rural areas. However, the sector is faced with so many challenges which include high mortality rate, multiple taxation, and poor entrepreneurial skills. According to the Small and Medium Enterprises Development Agency of Nigeria (SMEDAN, 2012) 80% of SMES die at a pioneering stage in their product life cycle.

The Small and Medium Enterprise Equity Investment Scheme (SMEEIS) sees the SME as any enterprise with a maximum asset base of N500 million (excluding land and working capital), and with no lower or upper limit of staff. In 1992, the National Council on Industry for the purposes of clarity as regards the definition of SMEs in Nigeria came up with a definition which was to be reviewed every four years, in essence taking care of the lack of uniformity that arose due to the many different definitions that matched the many different agencies making them. This definition divided the small and medium enterprise sector into micro, small and medium enterprises. Cottage/micro industry- enterprise with total cost (including working capital but excluding cost of land) is less than five million, with a labour size of not more ten workers; Small scale- industry- enterprise with total cost (including working capital but excluding cost of land ) above five million but not exceeding fifty million, with a labour size of not more ten, medium- scale industry – enterprise with total cost

(including working capital but excluding cost of land ) above fifty million but not exceeding five hundred million, with a labour size between fifty and one hundred and ninety nine workers.

Therefore, the paper is organized as follows: next to introduction is the literature review on firm performance, entrepreneurial orientation, and organizational culture, followed by the research methodology, statistical analysis and results of the study are presented in section four, section five provides the discussion and conclusion.

The study of Mohsen & Ramin 2011; Zainol&Daud 2011; Idar&Mahmood 2011; Al-swidi&Mahmood 2012; Fatoki 2012 reported significant positive relationship between entrepreneurial orientation and firm performance, whereas, in contrast, the finding of Arbaugh, Cox and Camp (2009) shows a mixed result, while Frank, Kessler and Fink (2010) reported a low correlation between EO to FP relationship. Similarly, Anderson (2010) reported a negative relationship between EO to performance relationship. Study in entrepreneurial orientation to performance relationship is inconclusive, hence; Wales, Gupta and Mousa (2011) asserted that most of EO studies were conducted in Europe and recommended the need for further study across different countries. Herath and Mahmood (2013) suggest the inclusion of mediator in strategic orientations to performance relationship.

## 2. Literature Review

### 2.1 Firm performance

According to Mandy (2009) firm performance is considered to be the outcome of adapting useful management process. He posits that organizational performance can be measured using a number of criteria's; which includes effectiveness, efficiency, growth and productivity. Organizational effectiveness may be measured in terms of financial, operational and behavioral measures respectively. First, financial measures may include profitability and growth, which in turn can be used in assessing the financial performance of an organization. Secondly, the operational measures include productivity, resource acquisition, and efficiency and employee reaction on workflow as well as work support in organizations. Third, behavioral effective measures are made up of adaptability, satisfaction and good communication can be used to assess individual performance. He further lamented on the process of determining the performance of an organization which, according to him requires a careful selection and measuring of a set of key variables that can allow an organization to detect as well as monitor its competitive position in the business it engages. Shariff, Peous, Juhary & Ali (2010) asserted that measures of performance can be viewed from (objective) that is more about the financial assessment to organizational performance on return on equity, return on assets and sales growth. According to Davood and Morteza (2012) sees firm performance as the ability of a firm to generate acceptable result and actions. Hence, firm performance is an essential issue in business activities which needs tolerable planning and dedication

### 2.2 Entrepreneurial Orientation

Miller (1983) offered perhaps the initial operationalization of the EO concept. He defines an entrepreneurial firm as one that "engages in product marketing innovation, undertakes somewhat risky ventures, and is first to come up with proactive innovations. Morris and Paul (1987) define EO as the tendency of a company's top management to take premeditated risks, be innovative, and be proactive. Numerous researchers have used this concept to measure EO from innovativeness, risk-taking, and proactiveness in their works (for example, Tan 1996; Covin & Slevin 1989; Morris & Paul 1987). Firms need to be innovative in order to fulfill potential customer needs, engage in new discoveries, try out new ideas, and stimulate creativity. All of which are efforts that may result in new products (Li, Liu, & Zhao 2006), services, or technological processes (Lumpkin & Dess 1996), and change existing technologies or practices and ventures (Kimberly 1981).

### 2.3 Organizational culture

The concept of organizational culture has been defined by different scholars and in different ways. Hofstede (1994) viewed culture as "the collective programming of the mind which differentiates the members of one group from that of another". Culture refers to shared traditions, values, and norms (Schein, 1985). Cameron and Quinn (2006) asserted that OC is a persistent set of values, beliefs, and assumptions that described organizations and their members. Therefore, organizational culture is considered to be the way of life of a given organization which differentiate it yearnings and aspiration from that of other similar organization.

## 2.4 Entrepreneurial orientation and firm performance

Entrepreneurial orientation has been examined in its relationship with firm performance, some of the studies that established significant positive relationship between entrepreneurial orientation and firm performance are:

Lumpkin & Dess 1996; Wang 2008; Merlo & Auh 2009; Faizol, Hirobuni & Tanaka 2010; Ogunsiji & Kayode 2010; Wales, Gupta & Mousa 2011; Mehrdad, Abdolrahim, Hamidreza, Mohsen & Ramin 2011; Zainol & Daud 2011; Idar & Mahmood 2011; Al-swidi & Mahmood 2012; Fatoki 2012). In contrast, the finding of Arbaugh, Cox and Camp (2009) shows a mixed result, while Frank, Kessler and Fink (2010) reported a low correlation between EO to FP relationship. Similarly, Anderson (2010) reported a negative relationship between EO to firm performance relationship. Study in entrepreneurial orientation to performance relationship is inconclusive, hence; Wales, Gupta and Mousa (2011) asserted that most of EO studies were conducted in Europe and recommended the need for further study across different countries. Herath and Mahmood (2013) suggest the inclusion of mediator in strategic orientations to performance relationship. Therefore, the following hypothesis is proposed to test the relationship:

H<sub>1</sub>: *Entrepreneurial orientation has a significant positive relationship on firm performance*

*Organizational culture and firm performance*

Several studies were conducted between organizational culture and firm performance with mixed findings. Naor (2008) conducted a study on the role of culture as a driver of duality management and performance: infrastructure versus core quality practices, using mail survey. They used a sample of one hundred and ninety eight manufacturing enterprises and a regression method. The result indicated a positive relationship between culture, infrastructure and performance. Aguayo (2012) conducted a study of culture predicts Mexican Americans' college self-efficacy and college Performance, with the questionnaire as research instrument, survey and regression method. The sample was drawn from four hundred and eight enterprises, and their findings reported strong relationship between culture and performance. Sturman et al (2012) did a study on the effect of culture on the curvilinear relationship between performance and turnover, using survey and regression method. Their findings indicated that cultural factors have a direct influence on profitability of voluntary turnover and influence performance, meaning a positive linkage between culture and with turnover and performance.

Navarro and Moya (2007) conducted a similar study on learning culture as a mediator of the influence of an individual's knowledge of market orientation 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.

H<sub>2</sub>: *Organizational culture has a significant positive relationship on firm performance*

H<sub>3</sub>: *Organizational culture mediates the relationship between entrepreneurial orientation and firm performance.*

## 3. Methodology

A structured survey questionnaire was used to collect data from the owner/managers of SMEs in Kano – Nigeria. The questions on firm performance were adopted from Suliyanto and Rahab (2012), while the entrepreneurial orientation question was adopted from Idar and Mahmood (2011) all in 5 point Likert scale.

Six hundred and forty questionnaires were self - administered, out of which five hundred and eleven were duly completed and returned which represent 79.8% response rate. SPSS and PLS statistical programs were used in the data analysis.

## 4. Statistical Analysis and Result

A preliminary test of validity and reliability using smart PLS 2.0 was used. The model involving entrepreneurial orientation, organizational culture and firm performance was examined, which employed a two – step approach by Chin (1998)

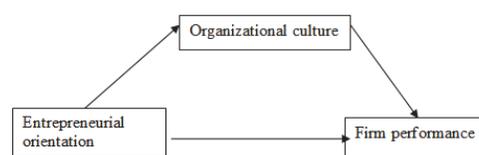


Figure 1. The Research Framework

#### 4.1 The Measurement, Outer Model

Constructs validity and reliability were assessed and confirmed before establishing the goodness of measures, they are examined through the content validity, the convergent validity as well as the discriminant validity respectively.

##### 4.1.1 The content Validity

Construct content validity is described as a situation whereby all items used to measure a construct shows a high loading on that constructs as compared with similar construct in the model. Hair (2010) and Chin (1998) asserted that the factor loading has to be used in examining the content validity. Hence, any item loading on the other construct higher than their loadings should be deleted. Table 1 and Table 2, shows that all the variables are loaded on their various constructs, which statisticians confirmed that the measurement model has the requisite content validity.

**Table 1.** Factor analysis results

Items	EO	OC	FP
<b>EO01</b>	<b>0.649836</b>	0.156225	0.105382
EO08	<b>0.844942</b>	0.089420	0.149759
<b>OC04</b>	0.102952	<b>0.684607</b>	0.123284
<b>OC16</b>	0.138323	<b>0.726300</b>	0.055116
<b>OC17</b>	0.087445	<b>0.735725</b>	0.109706
<b>PER01</b>	0.139912	0.053412	<b>0.814276</b>
<b>PER02</b>	0.132744	0.081064	<b>0.829772</b>
<b>PER04</b>	0.155734	0.113364	<b>0.739564</b>
<b>PER05</b>	0.124993	0.133983	<b>0.782402</b>
<b>PER06</b>	0.120051	0.136739	<b>0.770987</b>

**Table 2.** Factor loadings significance

Construct	Items	Loadings	Std Error	T -Value	P - Value
EO – FP	<b>EO01</b>	<b>0.649836</b>	0.054	2.334	0.05
	<b>EO08</b>	<b>0.844942</b>			
	<b>OC04</b>	<b>0.684607</b>			
OC – FP	<b>OC16</b>	<b>0.726300</b>	0.050	2.991	0.05
	<b>OC17</b>	<b>0.735725</b>			

##### 4.1.2 The Convergent Validity

Convergent validity as the name suggests, is the extent to which items meet to measure a particular construct (Hair, 2010). SEM literature established the examination of convergent validity through composite reliability and average variance extracted. A minimum loading for composite reliability is 0.7 whereas AVE is 0.5. The result in table 3 below shows that both the composite reliability and average variance extracted were above the benchmark set, hence the measurement model, outer model has an acceptable convergent validity (Bagozzi, Yi & Phillips, 1991).

**Table 3.** Convergent validity analysis

Construct	Items	Loadings	Composite Reliability	Average Variance Extracted
EO	<b>EO01</b>	<b>0.649836</b>	0.721	0.568
	<b>EO08</b>	<b>0.844942</b>		
	<b>OC04</b>	<b>0.684607</b>		
	<b>OC16</b>	<b>0.726300</b>		
	<b>OC17</b>	<b>0.735725</b>		
OC	<b>PER01</b>	<b>0.814276</b>	0.885	0.523
	<b>PER02</b>	<b>0.829772</b>	0.810	0.516
FP	<b>PER04</b>	<b>0.739564</b>		
	<b>PER05</b>	<b>0.782402</b>		
	<b>PER06</b>	<b>0.770987</b>		

a: CR =  $(\sum \text{factor loading})^2 / \{(\sum \text{factor loading})^2 + \sum (\text{variance of error})\}$

b: AVE =  $\sum (\text{factor loading})^2 / \{(\sum \text{factor loading})^2 + \sum (\text{variance of error})\}$

### 4.1.3 The Discriminant Validity

As the name implies, discriminant validity is seen as the degree to which a group of items can differentiate a construct from that of other construct in the model. A criterion was suggested by Fornell and Larcker (1981) for testing this type of validity. According to them the diagonal line which represents the square root of AVE should be compared with other element in the correlation of the variables. Hence, discriminant validity can be confirmed if the diagonal elements are higher than the other values in their respective rows and columns. Based on this criterion, discriminant validity is achieved.

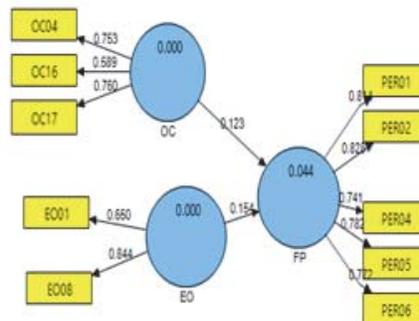
**Table 4.** Correlations and discriminant validity

	1	2	3
EO	<b>0.753</b>		
FP	0.171	<b>0.718</b>	
OC	0.153	0.135	<b>0.723</b>

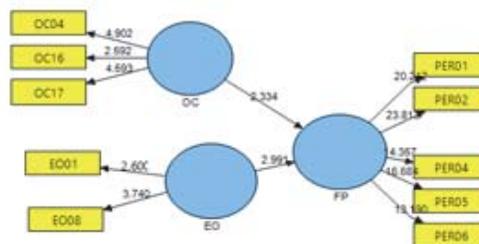
### 4.2 The measurement and structural model

After achieving construct validity and reliability, the next step was to test the proposed hypotheses of the study by running PLS Algorithm and Bootstrapping in smart PLS 2.0. Figure 2 and figure 3 and Table 5 and Table 6 below provides the different results.

**Figure 2.** Measurement Model



**Figure 3.** Structural Model



**Table 5.** Hypothesis Testing Results

Hy. No	Hypothesized Path	Path Coefficient	Std. Error	T - Value	P - Value	Decision
H <sub>1</sub>	<b>EO -&gt; FP</b>	0.154	0.054	2.334	0.05	Supported
H <sub>2</sub>	<b>OC -&gt; FP</b>	0.123	0.050	2.991	0.05	Supported

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

#### 4.2.1 Testing the Mediating effects of Organizational culture

In examining the mediating effects of organizational culture on the relationship between entrepreneurial orientation and firm performance, PLS was used to estimate the indirect effects among the variables. Table 6 shows the results in which OC have a significant indirect effect between EO and FP at 0.05 level of significance.

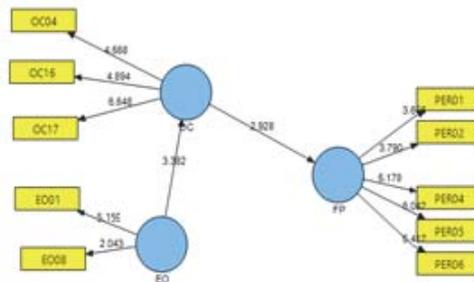
**Table 6.** Mediation analysis results

Hyp. No.	Hypothesis	Path Coefficient A*B	Std. Error	T - Value	P - Value	Decision
H <sub>3</sub>	Organizational culture mediates the relationship between EO and FP	0.031	0.012	2.493	0.05	Complementary Mediation

Therefore, it can be concluded that organizational culture has a complementary mediation between EO and FP based on Zhao, Lynch and Chen (2010) mediation typology. They categories mediation into five as: 1) complementary mediation, which is a situation whereby both direct and indirect hypotheses are significant; 2) competition mediation, poor direct and significant indirect; 3) indirect only mediation; 4) direct only mediation; and 5) no effect non – mediation. According to Zhao et al (2010), complementary mediation is similar to Baron and Kenney’s (1986) partial mediation whereas, the indirect mediation is similar to Baron and Kenny’s full mediation. Hence, based on this argument, partial mediation is achieved.

#### 4.3 Predictive Relevance of the Model

Cross- validated redundancy values were used to evaluate the model quality. Running Blindfolding procedures in smart PLS generate 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 small, hence, it confirms that model has adequate prediction quality.



**Figure 4.** Indirect effect

#### 4.4 Goodness of Fit of the Model (Gof)

The most common measure of goodness of fit for PLS – SEM found in most literature is the geometric mean of the AVE and the average R<sup>2</sup> for the endogenous variable in the following:

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

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 0.230 which is considered medium. Therefore, the result showed that the model GoF measure is a medium based on the average variance which refer an adequate level of PLS model validity.

### 5. Discussion and Conclusion

The objective of this study is to examine the relationship between the EO and firm performance with the mediating effect of OC. The results found that the EO – performance relationship was significant, OC mediated the relationship between EO – Performance. The statistical finding of the study shows that all the hypotheses were supported. In the first hypothesis, EO – firm performance relationship is significant at ( $\beta = 0.154$ ,  $t = 2.334$ ,  $P < 0.05$ ), this is consistent with the previous finding of Osman *et al.*, (2011) in their meta analysis, which reviewed the work of Wkiland and Shepherd 2005

and Faizol *et al.*, 2010. The summary of the work indicated the entrepreneurial orientation is a good predictor of performance. However, the findings of Al-Swidi and Mahmood (2012) reported a positive association between TQM, EO and organizational performance which is in concord with the current study. The finding of Fatoki (2012) indicated a significant and positive association between entrepreneurial orientation and the performance of small and medium enterprises in Prato, South Africa.

Similarly, Wang and Yen (2012) examined corporate entrepreneurship and performance of Taiwanese SMEs, using a sample of two hundred and sixty seven small firms. Entrepreneurial orientation was significantly found to predict SME performance. In the same vein, Ndubisi and Iftikhar (2012) investigated the relationship between entrepreneurship, innovation and quality performance of small and medium enterprises in Pakistan. A sample of one hundred and twenty four SMEs was used with survey questionnaire and multiple regression method for data analysis. The finding of the study established a positive association between entrepreneurship and quality performance. Mahmood and Hanafi (2013) reported a significant and positive relationship between entrepreneurial orientation and firm performance respectively. Additionally, the finding of Alarape (2013) indicated a significant association between entrepreneurial orientation and performance. The study of study of Arief, *et al.*, (2013) supported the previous findings that entrepreneurial orientation and performance relationship was found to be positive, with a sample of one hundred and forty small and medium enterprises from Malang. Al – Dhaafri and Al – Swidi (2014) in their study on the entrepreneurial orientation and organizational performance: Do enterprise resource planning systems have a mediating role? The finding of their investigation was in concord with the present study that entrepreneurial orientation has a significant and positive association with organizational performance. Shukri Bakar and Mahmood (2014) reported a significant and positive relationship between corporate entrepreneurship and performance of academic public higher education in Malaysia.

The second hypothesis supported that OC to firm performance relationship is significant at ( $\beta = 0.123$ ,  $t = 2.991$ ,  $P < 0.05$ ), this is equally consistently with the previous finding of Ngo and Loi (2008) reported a significant relationship between adaptability culture and human resource and marketing culture related performance of multinational firm operating in Hong Kong. Naor, Goldstein and Schroeder (2008) inspected one hundred and ninety eight manufacturing enterprises using a regression method and mail surveys. The result indicated a positive relationship between culture, infrastructure and performance. Similarly, the study of Liu (2009) assessed the relationship between organizational culture and new service delivery performance, using a face – to – face interview with one hundred and ninety two business managers. The correlation was used for data analysis, the finding reported that there is strong complementary relationships among innovative culture, supportive culture, market orientated culture, learning culture, customer communication with new service delivery performance.

The study of Eker and Eker (2009) investigated the relationship between organizational culture and performance of the Turkish manufacturing sector. A sample of one hundred and twenty two manufacturers of the top five hundred firms was used, with logistic regression for data analysis. The finding shows that firms with flexible culture tend to be non – financial performance, while firm to control tend to use performance measurement system for monitoring. Luczak, Mohan and Hill (2010) examined national culture, market orientation and network-derived benefits for service SMEs. The findings of their study indicated culture affects business owners' market orientations. Ezirim, Nwibere and Emecheta (2010) examined the effect of organizational culture on organizational performance with regression methods for data analysis. Organizational culture to performance relationship was found to be significant. Competitive, entrepreneurial and consensual organizational culture was found to be significantly positive to profitability, sales volume and market share. Bureaucratic organizational culture was negatively related to organizational 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 relation 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. Similarly, the third hypothesis supported the argument that OC mediated the relationship between EO to firm performance at ( $\beta = 0.031$ ,  $t = 2.493$ ,  $P < 0.05$ ).

The theoretical contribution is the extension of previous studies about EO – FP, OC – FP. Second, it is among the few studies that examine the mediating effect of organizational culture on the relationship between EO – FP.

The practical contribution can be seen that the results will help SME owner/managers in taking an adequate decision as regard to the important role of organizational culture toward firm performance. OC can help owner/managers achieve the desired maximum performance in organizations.

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