Disentangling the relationship between entrepreneurial orientation, organizational learning and small and medium enterprises performance

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ABSTRACT: While a considerable amount of research has consistently established significant positive relations between entrepreneurial orientation and small and medium enterprises' performance, there is a paucity of research examining the fundamental processes behind this relationship. To address this theoretical gap in the literature, this study examined the mediating role of organizational learning in the relationship between entrepreneurial orientation and SME performance. Based on survey data collected from 193 SMEs, located in Kano metropolis, findings suggested that entrepreneurial orientation was significantly associated with SME performance. Furthermore, the results indicated that the relationship between entrepreneurial orientation and SME performance was mediated by organizational learning. The implications of the results for explaining the performance of SMEs are discussed.

1. INTRODUCTION

Over the past two decades, the construct entrepreneurial orientation (EO) has enjoyed a remarkable popularity as many researchers focused on disentangling the mediating mechanisms through which EO affects various organisational performance indicators Lumpkin and Dess (1996). For example, Alegre and Chiva (2013) found that organizational learning capability mediated the relationship between entrepreneurial orientation and innovation performance of Italian and Spanish firms. Al-Dhaafri, Al-Swidi, and Yusoff (2016) established that total quality management plays a mediating role between entrepreneurial orientation and the organizational performance. Li, Huang, and Tsai (2009) found knowledge creation process to be a significant intervening variable between entrepreneurial orientation and firm performance. Drawing data from 213 small scale food firms in Norway, Veidal and Korneliussen (2013) showed that effect of entrepreneurial orientation on performance is mediated by organisational innovation. Furthermore, in German context, a study by Kollmann and Stöckmann (2014) established that both exploratory and exploitative innovations mediated the link between entrepreneurial orientation and performance.

Despite large research effort in identifying and examining the fundamental reasons why entrepreneurial orientation affects organisational performance, empirical examination of organizational learning as mediator between EO-SMEs performance relationship is limited. However, notable exception is Real, Roldán, and Leal (2014) who found empirical evidence for the mediating role of organizational learning in the relationship between entrepreneurial orientation and business performance. The present study differs from Real et al. (2014) in the following ways. First, while the present study focused on the performance of small and medium enterprises in Nigeria (African context), Real et al. (2014) focused mainly on Spanish industrial companies (western Europe context). Secondly, more than 50% of the sampled firms in Real et al. (2014) were large

firms having total sales revenue between €10 million and €50 million, compared to the present study, which included small and medium enterprises whose sales revenues were far less than that of the former.

The purpose of the present study was to re-examine organizational learning as a mediator of the relationship between entrepreneurial orientation and SME performance in Nigerian manufacturing industry. Towards this objective, the reminder of this paper is organized as follows. Section 2 reviews the theory and literature on link between entrepreneurial orientation and SME performance, as well as the mediating role of organizational learning behind this relationship. The research method employed in study has been described in this section 3. The findings of the study are then presented in section 4. Finally, section 5 discussed the findings of the study in terms of its implications.

2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

2.1 Entrepreneurial Orientation and SME performance

Entrepreneurial orientation has been defined as "a processes, practices, and decision-making activities that lead to new entry opportunities that can be successfully undertaken by purposeful enactment (Lumpkin & Dess, 1996, p. 136). A comprehensive review of literature conceptualized entrepreneurial orientation as either unidimensional or multifaceted construct (for review see Covin & Wales, 2012; Rauch, Wiklund, Lumpkin, & Frese, 2009). For the sake of simplicity and parsimony this study adopted unidimensional approach in conceptualizing entrepreneurial orientation. Empirical studies have shown that entrepreneurial orientation was positively related with SME performance (Pearce, John, Fritz, & Davis, 2010; Real et al., 2014; Schepers, Voordeckers, Steijvers, & Laveren, 2014; Wang, 2008; Wiklund & Shepherd, 2005; Zhang & Zhang, 2012). Specifically, Pearce et al. (2010) demonstrated that entrepreneurial orientation had a significant and positive relationship with SME performance. In the same vein, Wang (2008) found a significant positive relationships between entrepreneurial orientation and performance of 213 medium-to-large UK firms. In a study involving 130 SMEs in the north-east of China, Zhang and Zhang (2012) found that entrepreneurial orientation has a positive effect on business performance. Besides the aforementioned empirical studies, several other works have established as significant positive relationship between entrepreneurial orientation and SME performance in different research contexts. Based on aforementioned empirical studies we therefore advanced the following hypothesis:

Hypothesis 1: Entrepreneurial orientation will be positively related to SME performance.

2.2 Organizational learning as a mediating variable

What is the fundamental mechanism behind the influence of entrepreneurial orientation on SME performance? One possible answer to this research question lies in the realm of organizational learning. Theory and empirical research suggests that organizational learning play an important role in mediating the relationship between entrepreneurial orientation and SME performance (Barney, 1991; Real et al., 2014). We argued that organizational learning represents a fundamental reason why entrepreneurial orientation influences SME performance. Specifically, entrepreneurial orientation will be related to business performance through organizational learning. Thus, we argued that entrepreneurial orientation will initiate organizational learning ability which will subsequently lead

to superior SME performance. Based on this logical explanation and prior research, we advanced the following hypothesis:

Hypothesis 2: Organizational learning will mediate the positive relationship between entrepreneurial orientation and SME performance.

3. METHODS

3.1 Research Design and Analytical strategy

Given the longitudinal research design engulfs time and financial resources, the present study employs a cross-sectional research design in which the data were analysed and interpreted statistically, while drawing conclusions about the study's population at one point in time (Punch, 2005; Sekaran & Bougie, 2010). Partial Least Squares path modeling in conjunction with SmartPLS software 2.0 (Ringle, Wende, & Will, 2005) was used to test the hypotheses.

3.2 Procedure and Sample

We employ a convenience sampling to collect data for this study using self-administered questionnaires that were distributed to 200 SMEs operating in manufacturing industry within Kano metropolis in Nigeria. Specifically, the questionnaires were completed by CEOs and senior level managers in these firms because we believe that they have a clear picture of their entire firm (Kraus, Rigtering, Hughes, & Hosman, 2012). To increase the response rate, the questionnaires were sent along with a cover letter that ensured the anonymity of the participants. Of the 200 questionnaire sent, only 193 were completed by the participants, which yielded a response rate of 97%. In terms of demographic profile of the 193 participating SMEs in this study, 10.9 percent were sole proprietorship, 36.8 percent were partnership form of business organisation and 52.3 percent were incorporated as limited liability companies. . Regarding the firm size, 4.7 percent of the participating firms employ less than 50 employees, 51.8 percent employ between 50 and 99 employees and 21.2 employ between 100 and 249 employees. Twelve percent of the participating firms employ between 250 and 499 employees, and the remaining 9.8 percent employ 500 or more employees. In terms of industry of the participating firms, 22.3 percent were operating in Food and beverages industry, 8.3 percent operate in packaging/containers industry, 10.4 percent operate in metal and metal products industry. Additionally, about 45 percent operate in printing and publishing industry, another 7.3 percent were into agro-allied business, and 2.6 percent operate in building materials. Finally, 4.1 percent of the participating firms were regarded as those that operate in other industries not indicated above.

3.3 Measures

Entrepreneurial orientation. We adapted nine items from the works of Covin and Slevin (1989) to measure entrepreneurial orientation. The items in this scale reflect the three core dimensions of entrepreneurial orientation, namely: risk taking, innovativeness, as well as proactiveness. Ratings were completed using a seven-point Likert scale ranged from 1 = *strongly disagree* to 7 = *strongly agree*. Sample item are: "Our firm is very often the first business to introduce new products/services, administrative techniques, operating technologies, etc in dealing with competitors". "Our firm has a strong proclivity for high-risk projects (with chances of very high returns)".

Organizational learning. Organizational learning was assessed using a four-item Organizational learning scale developed by García-Morales, Llorens-Montes, and Verdú-Jover (2006). Participants were asked to respond to the items regarding the degree to which their firms are learning organization.. Ratings were completed on 7-point Likert scale (1 = *"significant disadvantage* to 7 =

"significant advantage). Sample item are: "Members of our firm have acquired some critical capacities and skills over the last three years". "Our firm is a learning organization".

SME performance. We used six-items to assess a wide range of SME' performance indicators. Out of the six items, five were adapted from the work of Powell (1995), and the remaining item was drawn from Baker and Sinkula (1999). Ratings were based on a seven-point Likert scale ranged from 1 = *strongly disagree* to 7 = *strongly agree*. Sample item was: "Over the past 3 years, financial performance of our firm has exceeded our competitors". "Over the past 3 years, our revenue growth rate has exceeded our competitors'".

4. RESULTS

The PLS path modeling estimation results are structured according to the measurement model and structural model. Furthermore, measurement model results (Table 1) are based on the indicator reliability, internal consistency reliability, convergent validity, and discriminant validity (Chin, 2010; Wong, 2013). On the other hand, the structural model results are assessed based on the significance of path coefficients, level of R-squared values, and the predictive relevance of research model (Henseler, Ringle, & Sinkovics, 2009).

4.1 Measurement Model

Following Hair, Hult, Ringle, and Sarstedt (2014), indicator reliability was established by examining the outer loadings of each construct's measure; and a loadings between 0.40 and 0.70 should be retained. As indicated in Table 1, of the 19 items in the measurement model, only 6 items were deleted due to loadings below 0.40. Hence, the remaining 13 items with loadings between 0.72 and 0.95 suggest adequate indicator reliability. We then established internal consistency reliability by inspecting the composite reliability of each construct's measure. Methodologically, internal consistency reliability is said to be established if composite reliability of each construct's measure is .70 or higher (Bagozzi & Yi, 1988). Again, the results of the measurement model Table 1 suggest adequate internal consistency reliability because the composite reliability co-efficient of each construct's measure exceeded the threshold of .70.

Table 1. Results of Measurement Model

Latent variables/items	Loadings	Composite reliability	Average variance extracted
Entrepreneurial orientation		0.92	0.69
EO01	0.73		
EO02	0.73		
EO07	0.89		
EO08	0.89		
EO09	0.89		
Organizational learning		0.90	0.76
OL01	0.95		
OL02	0.93		
OL04	0.72		
SME performance		0.88	0.60
FP01	0.75		
FP02	0.78		
FP03	0.78		
FP05	0.76		
FP06	0.79		

To establish the convergent validity of each construct's measure, Average Variance Extracted (AVE) should be 0.5 or higher (Bagozzi & Yi, 1988). Following Bagozzi and Yi (1988), the AVE values of each construct's measure in Table 1 exhibited high loadings above .50, which indicates adequate convergent validity. Finally, discriminant validity is established using Fornell and Larcker's (1981) criterium, if square root of AVE of each latent variable is greater than the correlations among the latent variables. As indicated in Table 2, the square root of AVE of each latent variable is greater than the correlations among the latent variables, as such, discriminant validity has been established.

Table 2. Results of Discriminant Validity

	Entrepreneurial orientation	*Organizational learning*	*SME performance*
Entrepreneurial orientation	**0.83**		
Organizational learning	0.82	**0.87**	
SME performance	0.55	0.56	**0.77**

Note. Entries shown in bold face represent the square root of the average variance extracted.

4.2 Structural Model

Following Hair et al. (2014), we estimated structural relationships among exogenous latent variable, mediator variable and endogenous latent variable on the basis of significance of the coefficients, coefficient of determination (R^2), as well as predictive relevance of the model (Q^2 values). We also applied bootstrapping with 5000 resamples to generate to generate standardized path coefficients, standard errors, t-values, as well as p-values. We further applied Preacher and Hayes (2004) procedures for estimating indirect effects in simple mediation models. In the first step, we ascertained the total effect of entrepreneurial orientation on SME performance without including a mediator variable organizational learning. In the second step, we tested our simple mediation model to show how entrepreneurial orientation affects SME performance via organizational learning. Table 3 and Table 4 reported the standardized path coefficients obtained in each of the step together with R^2, and Q^2 values.

Table 3. Results of Structural Model

Hypotheses	Relations	Beta	SE	t-value	p-value	Findings
	Step 1:					
H1	EO -> SME performance	0.57	0.05	12.31	0.000	Supported
	Step 2:					
H2	EO -> OL -> SME performance	0.354	0.061	5.793	0.000	Supported
		Total Effect		Mediation Effect		
R^2		0.32		0.34		
Q^2		0.19		0.20		

Note: * $p < .05$, ** $p < .01$, *** $p < .001$

EO = Entrepreneurial Orientation, OL = Organizational learning, SE = Standard Error

4.2.1 Total effect of Entrepreneurial Orientation on SME performance

As indicated in Table 3, and Figure 1, the total effect model explains 32% of the total variance in SME performance. Hence, the R^2 value of 0.32 can be considered acceptable (Falk & Miller, 1992). Table 3 and Figure 1 demonstrates Q^2 value of 0.19, which suggests adequate prediction relevance of the direct effect model (Henseler et al., 2009). With regard to the estimates of the path coefficients, it could be recalled that Hypothesis 1 stated that entrepreneurial orientation will positively related to SME performance. As can be seen in Table 3, the positive effect of entrepreneurial orientation on SME performance was found to be statistically significant ($\beta = 0.57$, t = 12.31, p< 0.01). Thus, the main conclusion that can be drawn from Table 3 is a confirmation of hypotheses Hl.

4.2.2 Indirect effects of Entrepreneurial Orientation on SME performance through Organizational Learning

Having tested the total effect model, we then assessed the indirect effect model, which incorporates job dissatisfaction structural as a mediator variable. Figure 1 and Table 3 showed the detailed results of the indirect effect PLS path model. Hypothesis 2 predicted that organizational learning will mediate the relationship between entrepreneurial orientations on SME performance. As shown in Table 3, the indirect effect of entrepreneurial orientation on SME performance through organizational learning was found to be statistically significant ($\beta = 0.26$, t = 1.87, p< 0.01). Hence, organizational learning mediated the relationship between entrepreneurial orientations and SME performance, lending support for Hypothesis 2. Regarding the coefficient of determination, Figure 1 and Table 3, indicated that the coefficient of determination (R^2) of the indirect effect model were 0.34 for SME performance. This demonstrates that the indirect effect model explains 34% of the total variances in SME performance, as such this R^2 values of 0.34 can be also be considered as acceptable following Falk and Miller's (1992) benchmark of 0.10 for assessing coefficient of determination.
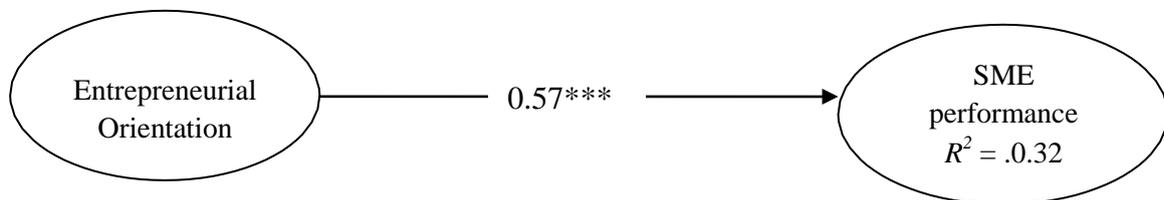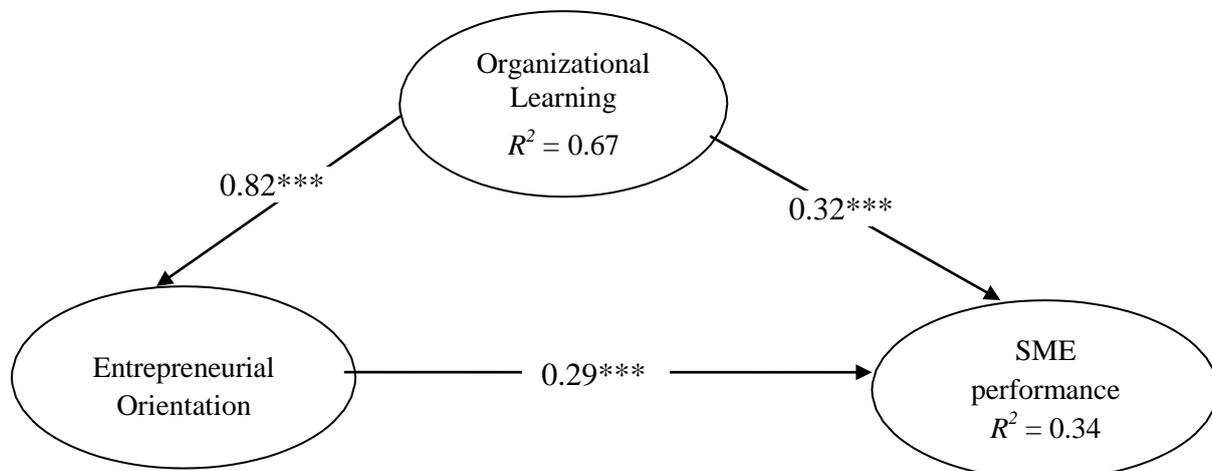

Fig 1: Model with Total effect

Fig 2: Model with Mediation Effect

5. DISCUSSIONS

The main objective of the present study was to examine the mediating role of organizational learning in the relationships between entrepreneurial orientation and SME performance. Based on the main objective of this study, two hypotheses formulated were tested and the results of the PLS path modeling provided support for the two hypotheses. It could be recalled that the present study sought to assess the influence of entrepreneurial orientation on SME performance though organizational learning. Entrepreneurial orientation was found to have a significant influence on SME performance. This denotes that firm adopts entrepreneurial orientation strategy by being innovative, proactive and having tendency to take high risk is able to achieve sustainable business performance. This findings was very much similar to the previous studies in the literature entrepreneurial orientation (e.g., Pearce et al., 2010; Real et al., 2014; Schepers et al., 2014; Wang, 2008; Wiklund & Shepherd, 2005; Zhang & Zhang, 2012).

Regarding the moderating effect, resource based view theory postulates that of organizational learning play an important role in mediating the relationship between entrepreneurial orientation and SME performance. Given the limited number of research examining the mediating role of organizational learning in the relationship between entrepreneurial orientation and SME performance, it motives us to further disentangle the fundamental reason why entrepreneurial orientation affects SME performance by incorporating organizational learning as a mediator. Accordingly, this result suggests that while entrepreneurial orientation is widely recognized as a predictor of SME performance, this effect is transmitted through a third variable organizational learning.

5.1 Practical Contributions

The results of this research provided important insights on how total quality management and firm resource advantage could enhance the overall performance of SMEs in Nigerian manufacturing sector. Subsequently, the results of this study would serve as a blueprint for the policy-makers and practitioners in formulating vital policies that could assist and help in improving the overall performance of SMEs. The findings suggested that managers of SMEs require working alongside strategic business units, including marketing and quality assurance departments to map out and implement entrepreneurial strategy that help in promoting customer satisfaction and firm performance (Lai, 2003; Lai & Cheng, 2005). Furthermore, the findings of this study imply the need to encourage employees' involvement and participation in carrying out this strategy. This could be achieved by developing formal reward and recognition systems in order to encourage employee involvement and participation, provide feedback to the employees, as well as support teamwork (Demirbag, Koh, Tatoglu, & Zaim, 2006).

5.2 Limitations and future research directions

Despite its contributions, the present study has a number of limitations that merit discussion. First, SME performance data used in the present study was only perceptual or subjective. Although researchers (e.g., Jones & Linderman, 2014; Ketokivi & Schroeder, 2004) showed that subjective measure of firm performance is valid and reliable proxies for objective measures, however, objective measures of firm performance has been found to be relatively free from measurement error (Devaraj, Hollingworth, & Schroeder, 2001; Meier & O'Toole, 2012). Therefore, future research could incorporate objective measures of SME performance in order to replicate the findings of the current study. Second, the present study offers quite limited generalizability because it focused mainly on SMEs in Nigerian Manufacturing sector, particularly those located in Kano metropolis. Thus, future research is needed to include SMEs in other sector of the economy or geo-political zones in order to generalize the findings. Furthermore, future research could study and compared Manufacturing sector with other sector including banking sector, and real estate industry. Finally, the present study employed a cross-sectional design. One major weakness of cross-sectional design is that it does not

allow causal inferences to be made from the population. Hence, given the shot coming of cross-sectional design, future research is strongly needed using longitudinal research design in order to measure re-examine the relationship between total quality management and SME performance by collecting data at different points in time to confirm the findings of the present study.

6. CONCLUSION

The present study demonstrated that firm resource advantage is an important mechanism through which the entrepreneurial orientation is positively related to SME performance. In conclusion, the present study has extended our knowledge of the underlying mechanism through which entrepreneurial orientation affects SME performance. The results are notable because they are well grounded in aspects of the literatures on entrepreneurial orientation. Thus, relationship between entrepreneurial orientation and SME performance is mediated by organizational learning.

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