

Entrepreneurial orientation and small firm performance: The moderating role of environmental hostility

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ABSTRACT

Objective: The objective of the study is to investigate the relationship between Entrepreneurial Orientation and the performance of small firms in Nigeria to determine the effect of environmental hostility towards this relationship.

Research Design & Methods: A survey was conducted on small firms. The gathered data were analysed with Andrew Hayes' Simultaneous Entry on SPSS 23.0 and PROCESS 3.

Findings: We discovered that there is no significant relationship between Entrepreneurial Orientation and firm performance, while environmental hostility moderates this relationship positively. We concluded that a hostile environment motivates firms to adopt Entrepreneurial Orientation, and ultimately improve their performance.

Implications & Recommendations: Environmental hostility is a crucial element in determining how Entrepreneurial Orientation relates to small firm performance. Therefore, owners/managers must identify and strengthen these factors that will enable them to improve on their Entrepreneurial Orientation to survive hostile business environments.

Contribution & Value Added: Concerning the Resource-Based Theory (RBT) and contingency theories, this study advances the field of Entrepreneurial Orientation by showing how the two combine to explain the Entrepreneurial Orientation–performance relationship in a developing economy.

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INTRODUCTION

High returns on assets, investments, and margins of net profits are key indicators of a successful firm (Poudel, Carter, & Lonial, 2018). The simplest form of accessing a successful firm is through its performance indices. Firms that score high in these indices usually enjoy growth and longevity and are easily regarded as performing well (Isichei, Agbaeze, & Odiba, 2020). Performance is vital in an organization's lifecycle as it signifies progress (Kallmuenzer, Strobl, & Peters, 2018). Organizations need unique nonreplicable resources to help them continuously pursue new opportunities to keep performing (Real, Roldán, & Leal, 2014; Rydehell, Isaksson, & Loften, 2018). Wiklund and Shepherd (2005) suggest Entrepreneurial Orientation (EO) as one of such unique resources.

EO involves those rare and non-replicable resources of a firm that comprises their willingness to take risks that involve trying out products that have not been tested, willingness to innovate, and proclivity to be proactive against competitors (Covin & Slevin, 1991; Covin & Wales, 2012). Scholars expect that firms with an EO would often outperform firms without EO (Chakrabarti & Mondal, 2018; Jogaratnam, 2002; Rydehell *et al.*, 2018; Tajeddini & Mueller, 2018; Vij & Bedi, 2012). This expectation appears to be revolving around the basic assumptions underlying Barney's Resource-Based Theory (RBT), that the resources at an individual's disposal would determine their success in the entrepreneurial process. We view EO as such a resource that could help firms to sustain their operations and survive challenges. Numerous studies have confirmed this expectation that EO enhances firms performance (Adomako, 2018; Anderson & Eshima, 2013; Alvarez-Torres, Lopez-Torres, & Schiuma, 2019; Gupta & Batra, 2015; Kallmuenzer *et al.*, 2018; Kreiser, Anderson, Kuratko, & Marino, 2019; Poudel *et al.*, 2018; Wiklund & Shepard, 2005; Yoon & Solomon, 2017). Although, exceptions still exist, as some studies observed contrary findings (Frank, Kessler, & Fink, 2010) that EO does not necessarily translate into firms' high performance. This meaning that certain factors within the environment (internal, external, or both) in which these businesses operate may be influencing this relationship.

The relationship between EO and performance is complex (Lumpkin & Dess, 1996) and moderated by factors within and without the business environment. Firms that operate in a munificent environment with a lot of support would have an increased in EO's effect on performance than those operating in an environment of hostility with a lot of lack and stress (Gupta & Batra, 2015; Martin & Rialp, 2013; Tajeddini & Mueller, 2018; Tsai & Yang, 2012; Zahra & Garvis, 2000). This paradigm follows the tenets of contingency theory, which suggests that less rigid structures better promote entrepreneurial processes than more rigid structures (Miller, 1988). Therefore, by integrating the contingency theory we follow the line of argumentation according to which simple main-effects relationship between EO and performance is insufficient for generalisation, and that it is dependent on the effects of factors within and without the business environment; particularly for small firms in developing economies like Nigeria.

According to the Small and Medium Enterprises Development Agency of Nigeria and National Bureau of Statistics report (SMEDAN & NBS, 2013, p. 3), small firms are business ventures that have total assets (land and building excluded) above 10 million naira, but not more than 100 million naira, and whose total workforce is between 10 and 49 em-

ployees. They have global recognition as engines of socio-economic transformation, because they provide jobs and wealth-creation opportunities and assist in income redistribution in both developing and developed economies (Atherton, 2005; OECD, 2017). However, small firms in Nigeria are bedevilled with an immeasurable number of challenges including the lack of financial access, dilapidated infrastructures, irregularities in government laws, the lack of support for business development services, insufficient access to markets, multiple taxations, and obsolete technology (SMEDAN & NBS, 2013). These challenges often mete out dire consequences, including the loss of market shares, redundancy, and extinction for most small businesses in Nigeria that are unable to cope with them (Babalobi, 2020; Oluwabunmi, 2020).

The above challenges of small businesses in Nigeria describe a hostile business environment. Nevertheless, some businesses operating in this same environment are still recording successes, growth, and survival with high performance. It is so probably because of their strategic decisions to introduce new business techniques, be proactive in recognising and pursuing new areas ahead of competitors, and take risks that sometimes provide favourable outcomes (i.e. EO) – or sheer luck. Therefore, our questions are: what form of relationship exists between EO and small firm performance in South East Nigeria? Does environmental hostility significantly affect the EO performance relationship of small firms in South East Nigeria?

Notwithstanding the abundance of studies investigating the relationship that exists between EO and performance from North America, Europe, Asia, and Africa (Adomako, 2018; Adomako, Narteh, Danquah, & Analoui, 2016; Amankwah-Amoah, Danso, & Adomako, 2018; Boso, Story, & Cadogan, 2013; Chen & Hsu, 2013; Engelen, Kube, Schmidt, & Christina, 2014; Gupta & Batra, 2015; Kallmuenzer, *et al.*, 2018; Palmer, Stöckmann, Kraus, & Kailer, 2019; Real *et al.*, 2014; Tajeddini & Mueller, 2018), we know of only one such study for Nigeria (Isichei *et al.*, 2020). The latter study investigated the intervening roles of structural infrastructure capability on the EO-performance relationship of SMEs but not the moderation effect of environmental hostility on firms. Moreover, although the study was conducted on the entire six geopolitical zones of Nigeria, the findings cannot be generalised because it investigated only 377 SMEs out of the total number of 73,081 SMEs in Nigeria (SMEDAN & NBS, 2017). Meanwhile, these geopolitical zones differ regarding the ease of doing business (Obisi & Gbadamosi, 2016). For instance, the South East region of Nigeria operates in a very hostile environment (Esien, 2014; Ojukwu, 2008), and no known study has investigated how this hostile environment affects the EO-performance relationship of small firms within these areas, hence our research question. Furthermore, the hierarchical regression approach – often utilised in testing contingency hypotheses – appears to be faulty. Hayes (2018) considers this approach to be essential for testing a moderation hypothesis, because it does not necessarily produce change in R square, nor does it produce the amount of difference in the dependent variable that is uniquely accounted for by the moderation of the independent variable's effect by the moderator. Furthermore, instead of the simple slope approach to visualising interaction effects adopted in previous studies, the Johnson-Newman (JN) technique appears to be better as it enables both the visualization and probing of interaction effects (Hayes, 2018; Hayes & Matthes, 2009).

This study contributes to the EO literature in several ways. Firstly, the small firm perspective from South East Nigeria appears to have been neglected in the EO-performance

relationship discourse, so this case would open new areas for both researchers and policymakers. This study also makes contribution about the interaction effects of environmental hostilities on the EO and small firm performance relationship in Nigeria. This contribution is significant because it can redirect the resources allocation strategies of owners/managers and policymakers towards enhancing the survival and performance of small firms. Finally, this study makes methodological contributions by showing that the simultaneous entry approach to testing moderation hypotheses gives a clearer picture than the hierarchical regression. And that the JN technique for visualising and probing the interaction effect is better than the simple slope technique. Hayes (2018) argues that the hierarchical entry method does not give the proportion of variance in a dependent variable (Y) that is uniquely catered for by the change of the independent variables (X) effect with moderators (W). To address this matter, we propose a simultaneity approach of Hayes's (2018) Simultaneous Entry on PROCESS, with the moderated variable being environmental hostility.

This article proceeds by reviewing studies on EO-performance relationships. The study discusses the likely moderation effects of environmental hostility on this relationship. Then we test our hypotheses on a sample of small firms and discuss the implications of our findings.

LITERATURE REVIEW

EO and Performance

According to Covin and Slevin (1989), EO means top managers' disposition towards taking business-related risks and favouring innovations that garner competitive advantages for the firm to compete with its competitors. Prior research reveals that EO consists of a firm's top management strategies involving innovativeness, proactiveness, and risk-taking (Covin & Slevin, 1989; Hughes & Morgan, 2007; Tang & Hull, 2012). However Lumpkin and Dess (1996) believe that competitive aggressiveness and autonomy should make this list, there is an argument that competitive aggressiveness and proactiveness are highly related, while autonomy is an environment that must exist for entrepreneurial processes to take place. Therefore, there is no need to perceive these elements as different constructs (Wiklund & Shepard, 2005). In this study, we employ EO as involving innovativeness, proactiveness, and risk-taking, in line with Covin and Slevin (1989).

According to the RBT (Barney, 1991), the degree of the divergence and immobility of firms' resources would determine the value, rarity, uniqueness, and sustainability of such resources, which would ultimately translate into higher firm performance. In other word, when the resources of a firm are similar to the resources of other firms, they become less valuable, rampant, and imitable, thereby eroding the firm's advantages easily, (Adomako, 2018; Anderson & Eshima, 2013; Arshad, Rasli, Arshad, & Zain, 2014; Bhattacharyya & Jha, 2015; Kljucnikov, Civelek, Cech, & Kloudova, 2019; Teece, Pisano, & Shuen, 1997). In other words, firms can attain sustainable supernormal returns when they possess superior and protected resources. By implication, this study considers EO as those superior resources: the ability to innovate by creating new products markets and processes as valuable, rare, unique, and sustainable resources for firms that possess them, as EO allows firms to reach higher returns. Moreover, the ability to be proactive – i.e. reading the market and catching opportunities of becoming first movers against other firms – is expected to create room

for higher performance in such kind of firms. The propensity to engage in highly risky ventures with uncertain outcomes can also be considered resources, such that risk-averse firms may easily become passive and side-lined by other companies. With these assumptions in mind, we hypothesised that:

H1: Entrepreneurial Orientation has a significant effect on firm performance.

EO, Hostility, and Performance

Prior research indicates that the business environment is an important ground for firms' growth and development (Adomako *et al.*, 2016; Amankwah-Amoah *et al.*, 2018; Calanton, Schmidt, & Benedetto, 1997; Chen & Hsu, 2013; Doorn, Jansen, Van den Bosch, & Volberda, 2013; Eموke-Szidonia, 2015; Engelen *et al.*, 2014; Gupta & Batra, 2015; Martin & Javalgi, 2015; Masa'deh, Alhenzab, & Obeidat, 2017; Rydehell *et al.*, 2018; Shehu & Mahmood, 2014; Tajeddini & Mueller, 2018; Tang & Hull, 2012; Tsai & Yang, 2012). Usually, the environment in which a firm operates would shape its attitude and behaviours concerning competition, structures, and decisions. Firms that operate in an environment with resources, infrastructure, and support can prosper in comparison to firms that operate in environments with deficiencies. However, this argument is true only to the extent that firms that operate in an environment with hostilities do not adjust their operations by strategically positioning themselves to suit their present situation. This synchronises with the basic assumptions of contingency theory. That is, firms operating in an uncertain and volatile environment will exhibit diverse attitudes, behaviours, approaches, and competencies, including adjusting their styles of management to suit the various situations in the environment (Ayman, Chemers, & Fiedler, 1995). By implication, firms that find themselves in hostile business environments have to display valuable, rare, and sustainable resources that include innovativeness, proactive prowess, and risk-taking abilities to succeed. They would easily do this by making adjustments in their management styles. Having rare, valuable, and sustainable resources is indicative of the fact that the firms' resource base is a factor in its success story, whereas uncertainty and volatility in the business environment are factors that could increase the acquisition of these resources.

Hostility in the environment could result in firms performing poorly, as firms that are unable to absorb such shocks may soon exit the environment. However, some firms could develop their resources and adjust their processes to absorb such shocks. Such firms will easily pass as entrepreneurial, but it does not necessarily make them high performers. Hostility in the environment could be in numerous forms such as changes in demands, technology, products, government laws, and policies and forces in the market (Covin & Slevin, 1989). However, numerous studies show that environmental hostilities can promote or mitigate firms' survival (Calantone *et al.*, 1997; Lindelof & Lofsten, 2006; Tajeddini & Mueller, 2018). We envisage that the environment interacts with the EO-performance relationship, and the former could provoke either a positive or a negative effect on small businesses in Nigeria. Therefore, we hypothesise that:

H2: Environmental hostility will likely have a statistically significant moderating influence on the EO-performance relationship of small businesses in Nigeria.

A Conceptual Model

The conceptual model in this study explains the universal EO-performance relationship. This is represented by the path labelled as H1 here. We propose that EO will have a statistically significant relationship with performance. The path labelled H2 in this model represents environmental hostility's contingent effects on EO and performance. This path suggests that the EO-performance relationship is dependent on environmental factors like government interferences, competitors, lacking or deficient infrastructure, and the inadequate supply of materials. Our model predicts that environmental hostility will have a statistically significant effect on the relationship between EO and small firm performance.

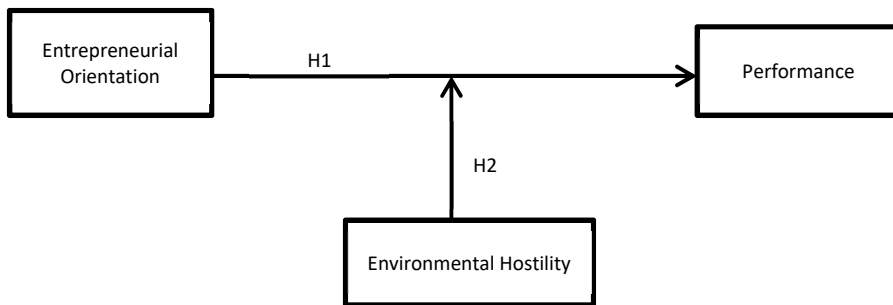


Figure 1. A conceptual model

Source: own elaboration.

RESEARCH METHODOLOGY

This study adopted an exploratory research design to determine the effects of predicting and moderating variables on the outcome variable of the study. The design according to Kothori and Garg (2014) is suitable when the study aims to discover ideas or new insights. The design enabled us to find the type of relationship that exists between EO and performance, but also the effect of hostility on this relationship. Small firms are not necessarily under statutory obligations by regulatory bodies like the Corporate Affairs Commission (CAC) to prepare, present, and publish their financial or business records; and their operations are usually reflected their owners/managers quality. This constrained us to gather primary data directly from owners/managers through questionnaires. The population of the study comprised registered small businesses operating in South East Nigeria. South East Nigeria comprises five states with people of the same culture, language, and religion (Okwo, Ezenwakwelu, Igwe, & Imhanrenialena, 2019). South East Nigeria has a large number of small businesses that greatly contribute to the country's GDP (SMEDAN & NBS, 2013). The total study population includes 6,663 small firms in the South East Nigeria given by the SMEDAN and NBS report (2013). These various firms fall in different economic sectors, including trading, manufacturing, service providers like transport and storage, education, health, social work, art, entertainment and recreation, and construction. A simple random sampling technique (Taro Yamane) was utilised to draw the sample, i.e. 377 small firms from this population. This sample size meets the Kaiser-Meyer-Olkin (KMO) sample size adequacy test criteria, according to which the lower proportion of a sample compared

to its main population makes a data suitable for factor analysis. These firms were proportionately distributed according to their percentages per state: (Abia = 27%, i.e. 102; Anambra = 18%, i.e. 68; Ebonyi = 24%, i.e. 90; Enugu = 12%, i.e. 45, and Imo = 19%, i.e. 72).

The criteria for selection into this study were strictly based on consent, as we approached owners/managers of small firms on site. We clarified to them the aim of the research, highlighting that the study was strictly for academic purposes, their responses would be treated anonymously, and they would not receive any rewards for the survey. Only those that agreed to the above conditions were offered questionnaires. After this process, we discovered that only 267 questionnaires were returned complete. Out of this number, only 221 (58.6%) were properly completed and were utilised for the analysis of this study.

Measurements and Scale Development

All the scales utilised in this study were all adapted from previous researches: the Performance scale from Poudel *et al.* (2018), the EO scale by Covin and Slevin (1989), and the Environmental Hostility scale from Miller and Friesen (1982). However, in recognition of the differences in context, slight adjustments were made in the statements of questions in some scales to suit the context of this study. Every scale utilised in the study – except for the control variable – was anchored in the five-point Likert scale, in which 1 = Strongly Disagree and 5 = Strongly Agree. To ensure that the owners/managers of these firms are familiar with the items of these instruments, we did a pilot study on a few firms in this area. The results from the pilot study indicated convergent and divergent validity, along with high reliabilities of 0.82 for performance, 0.78 for EO, and 0.86 for Environmental Hostility. These results were achieved by checking internal consistency tests on SPSS. The same tests were utilised to access the original data of the study's scales and the minimum alphas pegged at 0.70.

Firm Performance

For our study, we adapted and adopted the reflective performance scale – as created by Poudel *et al.* (2018) – which consists of four (4) regular financial performance indices: Return on Assets (ROA), Return on Investments (ROI), net profits, and profits to revenue ratio. The scale assessed executives' perceptions of their firm's performance against the performance of their key competitors in industry. Small firms are under no strict laws to present their financial records and – since we investigated firms from different industries – it could have been difficult to find a uniform measure of objective performance. Therefore, we opted for subjective measures of small firm performance. The approach of using subjective measures to access firm performance appears to be a common and well-received practice in organizational research (Alvarez-Torres *et al.*, 2019; Poon, Ainuddin, & Junit, 2006; Poudel *et al.*, 2018; Stam & Elfring, 2008; Tajeddini & Mueller, 2018; Wiklund & Shepard, 2005). The performance of owners/managers of small firms was assessed by asking them to rank their perceived growth in ROA, ROI, net profits, and profits revenue ratio over five years on a five-point Likert scale ranging from (1) extremely low to (5) extremely high. We adopted a time lag of five years because this period – according to Boyte-White (2019) – suffices for a firm to calculate its ROA, ROI, net profits, and profits revenue ratio. Moreover, according to Oluwabunmi (2020), one out of every three firms in Nigeria becomes extinct in the first 18 months of operation because of the hostile nature of business environment. This implies that it would have taken most firms some time to break-even

before they could begin to earn some profits beyond their investments. Therefore, we estimate such time to be around five years.

Entrepreneurial Orientation (EO)

Covin and Slevin's (1989) scale was adopted and modified for this study. The EO scale comprised of items that measured a firm's disposition towards innovation, risk-taking, and proactiveness. The scale contained nine items, three from each of the various constructs. Preliminary diagnostics on the data gathered from the scale indicated that four out of the nine items were below the benchmark score of 0.5 and were excluded from further analysis. The remaining five items loaded appropriately, one question had the lowest factor loading of 0.52 while the highest loading of a question was 0.76. The latter measured the extent to which firm owners/managers agree that their firms favour the more tried approach than Research and Development (R&D), technological development, and innovation. The extent to which they agreed that they respond to competitors initiative against initiating processes for competitors to follow, and how much did they agree that they possessed a strong proclivity towards lower risky ventures as against higher proclivity towards risky ventures. The composite reliability (CR) was 0.781.

Environmental Hostility

To measure environmental hostility, we adopted Miller and Friesen's (1982) scale with six question items to quantify the perception of firm owners/managers with regards to their environment. For example, respondents were asked whether 'the environment that characterises this business poses a big threat to its survival.' After preliminary diagnostics, the factor loadings indicated that two out of the six question items failed to meet the set score of 0.5 and were subsequently discarded. The scale also measured the extent to which firm owners/managers agreed that tough price competition serves as a threat to their operations, how much they agree that government interference threatens their business operations, how much they agree that scarcity in raw materials and facilities severely threatens their business operations. Out of the four questions that loaded appropriately, one question had the lowest factor loading of 0.91 while another had the highest loading of 0.95. The composite reliability (CR) was 0.952.

Control Variables

We controlled for firm age. This was gauged by a firm's years of operation. Thus, we ensured that only firms that have operated for five years and more were involved in this study. This was basically because these firms could pass through the initial stage of business, in which fixed costs are usually above variable costs and when businesses can hardly break even. Moreover, we involved these firms because at this stage – according to Boyte-White (2019) – they would be able to ascertain performance indices like ROA, ROI, net profits, and profits revenue ratio.

RESULTS AND DISCUSSION

Confirmatory Factor Analysis (CFA) was executed on the data set of this study before proper analysis. 18 items were assessed under three variables (EO, environmental hostility, and performance). The CFA established the fitness of the overall model, after eliminating items that

could have been covered by other variables. This model fitness was ascertained by accessing the proportion of the chi-square to its degrees of freedom (χ^2/df), the Comparative Fit Index (CFI), the Goodness-of-Fit Index (GFI), and the Normed Fit Index (NFI), which all emerged within the stipulated range for acceptance (e.g. Poon *et al.*, 2006). Our hypotheses were tested using the correlation analysis and simultaneous entry analysis (Hayes, 2018). The internal consistency tests were used to obtain Cronbach's alphas for various items; only alpha scores from 0.7 and above are utilised in this study, as suggested in Poon *et al.* (2006).

The χ^2/df is lesser than five, i.e. 1.79; CFI = 0.982; GFI = 0.942; IFI = 0.982 and NFI = 0.961, all above the 0.90 cut off suggested by Poon *et al.* (2006). Factor loadings were fine, an indication that the respondents recognised the items of the instruments. Multicollinearity was not an issue in this model, and there was also discriminant and convergent validity between and among the observed variables of the study. The CFA suggested that the elimination of some items would improve the final results and make the analysis less complex. For instance, four items from EO, two from performance, and two from environmental hostility were identified to be major issues in the model and were dropped from further analysis. Compared to a study by Boso *et al.* (2013), this is not out of place because such items may have been covered by other items that are loaded high. Moreover, we pegged our Extraction Absolute Value (ABV) at 0.5, which is higher than the values of some previous studies (Florin, Karri, & Rossiter, 2007). The reason behind pegging it this high was that the scale had never been tested on our study area and population; we intended to confirm that the respondents recognised the items.

Table 1. Descriptive statistics and correlations

Variables	Mean	SD	1	2	3	4
1: Age	1.99	1.014	1			
2: Entrepreneurial Orientation	16.32	4.318	0.416**	(0.781)		
3: Environmental Hostility	7.62	1.592	-0.286**	-0.447**	(0.982)	
4: Small firm Performance	11.20	7.144	0.234**	0.496**	-0.351**	(0.734)

Notes: Alpha reliabilities are shown in parentheses on the diagonal.

** $p < 0.001$. N = 221.

Source: own elaboration in the SPSS program.

Table 1 shows the Means, Standard Deviations, and the Correlations between variables of this study: firms' age, EO, hostility, and performance. The table shows a positive and significant relationship between EO and performance ($r = 0.496$, $p < 0.001$), which means that higher EO leads to higher firm performance. Hostility showed a negative and significant relationship with firm performance ($r = -0.351$, $p < 0.001$), which signifies that higher levels of uncertainties in the business environment reduce firm performance. Firm age indicated a positive and significant relationship with firm performance ($r = 0.234$, $p < 0.001$), meaning that garnered experiences help businesses to perform better. Finally, hostility showed a negative and significant relationship with EO ($r = -0.447$, $p < 0.001$), meaning that higher levels of hostility in the environment kill the EO of firms.

To assess the interaction effects of environmental hostility on the EO-performance effect, a simultaneous entry analysis was conducted on SPSS with Andrew Hayes PROCESS.

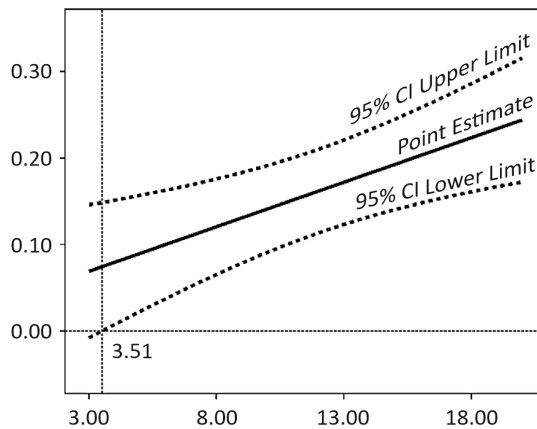
Table 2. Test of hostility on Entrepreneurial Orientation–performance effect

Variables	Paths	Coeff.	SE	T	p
Constant	iy	7.2413	0.8088	8.9537	< 0.001
Entrepreneurial Orientation (X)	b_1	0.0382	0.0473	0.8079	0.420
Hostility(W)	b_2	-0.1898	0.0546	-3.4774	< 0.001
Entrepreneurial Orientation X Hostility(XW)	b_3	0.0103	0.0034	3.0595	< 0.01
Firm age(C)	b_4	0.0631	0.0999	0.6322	0.528
$R^2 = 0.2910$, $MSE = 1.8310$					
$F(9.3605) = 22.1641$, $p < 0.001$					

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

Source: own elaboration: PROCESS Output.

Table 2 shows the results of the hypotheses. Hypothesis 1 proposed that EO will have a statistically significant relationship with small firm performance, which was not supported ($\beta = 0.0382$, $p > 0.05$). This is a deviation from previous studies (Amankwah-Amoah *et al.*, 2018; Al-awlaqi, Mohamed, & Habtoor, 2018; Chen & Hsu, 2013; Dess, Lumpkin, & Covin, 1997; Dess & Lumpkin, 2005; Real *et al.*, 2014). By implication, this means that firm performance is not completely predicted by the extent to which firms are innovative, proactive, or prone to taking a risk. In other words, other variables may be moderating this effect. However, suffice it to note that this contrast may be peculiar to the type of firms under study. Hypothesis 2 proposed that environmental hostility will likely have a statistically significant effect on the EO-performance relationship, which was supported ($\beta = 0.0103$, $p < 0.001$), confirming findings from previous research (Alvarez-Torres *et al.*, 2019; Emóke–Szidónia, 2015; Engelen *et al.*, 2014; Frank *et al.*, 2010; Goll & Rasheed, 2004; Gupta & Batra, 2015; Hasan, Hakim, Yulius, & Naim, 2015; Lindelöf & Löfsten, 2006; Tajeddini & Mueller, 2018). Firms would improve their performance through EO when the environment is highly uncertain.

**Figure 2. Interaction effect between EO, environmental hostility, and performance**

Source: Johnson-Neyman's interaction, PROCESS 3.

Discussion

This study results from previous works that state EO enhances firm performance (Amankwah-Amoah *et al.*, 2018; Al-awlaqi *et al.*, 2018; Poudel *et al.*, 2018; Dess & Lumpkin, 2005; Real *et al.*, 2014; Wiklund & Shepherd, 2005; Yoon *et al.*, 2016). The article also effects from suggestions of previous works to link the EO-performance relationships with theories and methodologically advance the field (Miller, 2011). Moreover, this study is significant because it provides the Nigerian perspective on the EO-performance debate to the already existing body of knowledge. Furthermore, the study confirms the RBT in predicting the EO-performance relationship and extends the methodological approach from the usual hierarchical regression analysis often used by researchers to the simultaneous entry approach suggested by Hayes (2018). This study used the JN technique in probing and visualising interaction effects against the simple slope method.

As a result, the study found that small business enterprises in the South East Nigeria recognised the elements of EO and environmental hostility and that these elements affect their performance. Firms in South East Nigeria are entrepreneurially oriented, i.e. they innovate, act proactively, and engage in risky ventures. A significant positive relationship exists between firm age, EO, and performance as well. This means that the older a firm gets, the more inclined it is towards entrepreneurship and the better its performance. This finding negates the results of previous works (Palmer *et al.*, 2019; Poudel *et al.*, 2018) that found aged firms become more rigid and formalised with time. This divergence could be contextual, i.e. small firms in South East Nigeria may have learned that the only way to stay afloat is to have EO. However, firm age showed a negative relationship with environmental hostility in our study, which means that uncertainties in the environment negatively impact firm operations. Hostilities like high taxes and the lack of basic amenities like securities and power supply affect older and younger firms. Younger firms suffer while still striving for survival, due to the extra costs for providing their securities and control.

However, our major findings (i.e. results from the simultaneous entry) showed that EO is not related to small firm performance, which contradicts previous studies. This finding negates the assumptions of the RBT that the resources at an individual's disposal would determine their success in the entrepreneurial process. Although some studies discovered the negative EO influence on firm performance, our study found a positive yet insignificant result. By implication, EO is beneficial to the activities of small firms in this region, but it is not particularly important as firms without these postures can still perform well. This result could have possibly arisen from the context in which this study was conducted. The majority of firms in the region imitates other products and hardly innovates or engages in less proactive and risky ventures. Therefore, we conclude that EO does not necessarily have a significant relationship with firm performance in this case.

In the same vein, we discovered that environmental hostility has a significantly negative effect on small firm performance. This agrees with the findings of previous works (e.g. Adomako, 2018; Calantone *et al.*, 1997; Hasan *et al.*, 2015; Lindelof & Lofsten, 2006; Zahra & Garvis, 2000). What this implies is that turbulences like harsh government policies and unhealthy competitions tend to dampen the performance of small firms in our region.

Finally, the interaction effect that environmental hostility creates between EO and performance was positive and significant. The finding confirms the tenets of contingency

theory, that firms operating in uncertain and volatile environments will exhibit different attitudes, behaviours, processes, and competencies, including adjusting their management styles to suit the various situations in the environment. The insignificant EO–performance effect could have been orchestrated by environmental hostility. However, this hostility could have necessitated firms to exhibit different attitudes, behaviours, processes, and competencies, including innovating, acting proactively, and taking calculated risks that resulted in an increase in their performance even in a hostile environment. What this finding means is that as the environment gets hostile, firms are bound to seek survival strategies that involve innovativeness, proactivity, and willingness to engage in risky ventures, which would invariably enhance their performance.

CONCLUSIONS

This study addresses three major gaps: providing the Nigerian perspective in the EO-performance literature, linking EO to a theory, i.e. the RBT and – then – adopting a new methodology of testing for an interaction effect in the EO-performance effect. EO involves a firm’s proclivity towards innovating, proactivity against competitors, and willingness to engage in risky ventures to maximise profitability and – ultimately – performance. Firms with such a high proclivity perform better than firms that have low proclivity or none. We believed that this obtains among small business enterprises in South East Nigeria and that the environment in which these businesses operate influences how EO affects their performance.

In line with the aims and framework set for this study, several theoretical contributions have been realised from the findings. The study aimed at determining the relationship of EO on the performance of small firms in Nigeria and to enquire how a hostile environment will likely moderate this EO-performance relationship in small firms in South East Nigeria. These arguments were built on theories like the RBT and the contingency theory. The RBV explains that distinctive resources like EO give a firm a competitive edge against its competition. From this argument, we followed previous studies to predict that firm resources (EO) would significantly and positively increase its performance. However, contrary to a priori expectations, this theory did not support the hypothesis that EO necessarily increases firm performance. The contingency theory on the other hand, suggests that certain normative, political and cognitive factors within the business environment would influence a firm’s entrepreneurial dispositions, and such influences could increase firms’ performance. We discovered that these factors further increased the EO-performance relationship. This means that environmental hostility strengthens firm EO prowess, which in turn increases their performance. Therefore, environmental hostility positively moderates EO and performance.

Our findings have implications for the management of small firms. Firstly, since the EO-performance relationship was not supported, it means that other factors like imitation, reactivity, or social-cultural issues play underlying motivations that help firms maintain or improve their performance. Therefore, it lies on the owners/managers of these small firms to identify and strengthen the firms as they will help them to maintain or improve their performance. Moreover, since our findings indicated that certain environmental factors improve the EO-performance relationship, owners/managers will

have to devise a means to improve on their EO dispositions as this will help them to survive hostilities within their business environments.

The scope of this study serves as a limitation to the study, given that the study was only conducted on small firms in South East Nigeria. Hence, it may be difficult to generalise the findings of this study because they are the only representative of five out of 36 states in Nigeria. Furthermore, the findings represent a section of the four different categories of businesses in Nigeria. With these limitations in mind, we suggest that future studies should engage in enlarging this scope to include medium-sized and large scale business firms within this region and even beyond.

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