THE CONTINGENT ROLE OF ACCESS TO DEBT FINANCE ON ENTREPRENEURIAL ORIENTATION AND FIRM PERFORMANCE

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Abstract
The literature demonstrates that the concept of entrepreneurial orientation (EO) has attracted several theoretical and conceptual interests in organization research, resulting to its emergence as one of the critical antecedents of firm performance. As the number of studies on EO-performance relationship keep growing with divergent findings, scholars have advanced to seek for situational factors that facilitate or enhance EO-organizational performance relationship. Drawing from the resource-based view (RBV) theory, this study evaluates the moderating role of access to debt finance on EO-firm performance relationship among manufacturing small and medium enterprises (SMEs) in north-central region of Nigeria. Utilizing cluster sampling technique, this study collects 305 usable data from SME owners/managers through self-administered questionnaire and analyses the data with SmartPLS-SEM version 3.2.7. Findings indicate positive and significant link between EO and SME performance. Also, access to debt finance demonstrates evidence of moderating influence on the relationship between EO and SME performance. Thus, this study extends the knowledge in the area of EO-performance relationship by incorporating access to debt finance as a moderating variable which specifies the condition under which EO exerts much influence on firm performance. This has practical implications for SME owners/managers that may seek to improve their enterprise performance.

Keywords: Entrepreneurial orientation, access to debt finance, small and medium enterprises performance

INTRODUCTION
Globally, small and medium enterprises (SMEs) serve as promising source for employment generation and improvement in economic activities (Amin, Thurasamy, Aldahil & Kaswuri, 2016; Habeeb, Ghali, & Alharguse, 2019). In other words, SMEs are regarded as the livewire that promote grassroot economic activities for nations’ growth and development (Ekpenyong, 2015; Zakaria, Abdullah & Yusoff, 2017). Considering the significant role of SMEs in economic growth and development, many nations across the globe have expressed readiness to encourage and support the activities of SMEs (Oduyoye, Adibola, & Binuyo, 2013). Thus, a good number of economies around the world have built confidence in SME activities to solve socio-economic problems and consequently improve their Gross Domestic Product (GDP).

Although it has been widely acknowledged that SMEs play important role in promoting economic growth and development, SMEs activities in Nigeria are confronted with a lot of challenges (Agwu, 2018; Okpara, 2011; Uwajumogu, Nwokoye, Anochiwa, & Ojike, 2015). Prominent among the challenges are low level of entrepreneurial skills, insufficient capital base, limited access to financial resources resulting to poor performance and high rate of business mortality. The poor level of SME performance in Nigeria has become a source of concern to policy makers, practitioners, and researchers alike (Shehu & Mahmood, 2014). SMEs in Nigeria constitute about 96 percent of business establishments (Adeleyemi, Isaac, & Olufemi, 2017; Olfi, 2015). However, their contribution to GDP is as low as less than five percent (Agwu, 2018; DU & Banwo, 2015). Therefore, it is observed that the increasing competitiveness and dynamism in business settings, SMEs may embrace the philosophy of strategic orientation to survive and thrive in Nigeria (Agwu, 2018).

One of the key elements of strategic orientation that seems to have gained prominence in strategic management, entrepreneurship and management literature at large due to its impact on firm performance, is entrepreneurial orientation (EO) (Anderson, Kreiser, Kuratko, Hornsby, & Eshima, 2015; Lee, Choi, & Kwak, 2014). Moreover, Al-Ansaa, Bederr, and Chen (2015) suggested for further investigation on EO-firm performance relationship. EO entails behavior and/or business practices, processes and procedures that portray an enterprise as a proactive, risk taking and innovative firm (Miller, 1983; Govin & Slevin, 1989). Although several studies have been conducted on the relationship between EO and firm performance, there is room to further explore the relationship because, extant literature indicates that EO-performance research is inconclusive due to inconsistency in findings. For example, while Al-Dhaafri, Al-Swidi, and Yusoff (2016), Gupta and Batra (2016), Habeeb et al., 2019; Zakaria et al. (2017), Zhang and Zhang (2012), report that firms that are strong on entrepreneurial orientation may perform better because EO is positively and significantly related to performance. Alegre and Chiva (2013), Jimenez, Cegarra-Navarro, Gattermann Perin, Sampaio, and Lengler (2014), Pett and Wolff (2016) indicate insignificant relationship. On the other hand, Frank, Kessler, and Fink (2010) reveal negative relationship whereas, Vedal and Korneliussen, (2013) report no direct relationship. Moreover, Yoon and Solomon (2017) point out that EO has an inverted U-shaped impact on firm performance. These results demonstrate mixed findings or inconsistencies in findings. The case of inconsistency in findings warrant for introduction of moderating variable(s) (Baron & Kenny, 1986).

In line with this suggestion, several studies have considered EO-performance relationship by examining the moderating effects of variables such as organizational culture (Al-Swidi & Mahmood, 2012), network capabilities (Zhang & Zhang, 2012), firms’ level of performance work system and partnership philosophy (Messersmith & Wales, 2013), customer capital (Jalali, Jaafar, & Ramayah, 2014), transformational leadership behavior (Engelen
et al., 2015), social networking (Kiprotich, Kimsop, & Kemboi, 2015), demand growth and competition intensity (Gupta & Batra, 2016), influence of family governance (Lee & Chu, 2017), employees’ psychological safety (Yoon & Solomon, 2017), absorptive capacity and environmental dynamism (Zhai et al., 2018). However, there is limited knowledge about the moderating role of access to debt finance on EO-firm performance in the literature. According to Asah, Fatokki, and Runungi (2015), access to debt finance may facilitate or enhance the positive relationship between EO and firm performance. Therefore, the purpose of the present study is to examine the moderating effect of access to debt finance on the relationship between EO and SME performance in north-central Nigeria.

The remaining part of this paper is organized as follows: the theoretical background and review of past studies are discussed, resulting to development of hypotheses and research framework or model. Thereafter, a highlight of the research design, sample and sampling technique, as well as the measures are made. Subsequently, results emanating from data analyses are presented and discussed. Finally, suggestion for future study and conclusion were drawn based on findings of the study.

THEORETICAL BACKGROUND AND HYPOTHESES DEVELOPMENT

Resource-based view theory

Drawing from one of the famous theories that underscores the significance of firm’s resources in achieving competitive edge and sustainable performance, this research model is framed within the purview of resource-based view (RBV). The perspective of the RBV postulates that if a firm can get hold of varied resources that are valuable, rare, inimitable and non-substitutable (VRIN) to initiate and execute strategic actions in a unique manner, such firm may stand to achieve competitive edge to perform better than others in the marketplace (Barney, 1991). Thus, aligning this study to the perspective of RBV, EO and externally generated financial resources may be termed as VRIN resources that might be used to conceive and execute strategies that may not be implemented by competitors simultaneously or may be difficult to imitate by prospective or existing rivals in the marketplace.

Firm performance

To Berry, Sweeting, and Goto (2006), firm performance entails the outcomes derivable from efficient and effective utilization of resources in productive processes. Therefore, firm performance may be described as the actual output of the enterprise compared to input. It shows the extent to which an enterprise makes optimum utilization of resources at its disposal to achieve the aim of its corporate existence. To ascertain the level of firm’s performance over a given time frame is not only important but it is equally necessary as it offers insights about aspects in which the business is doing well, hence, should maintain the status quo to further maximize competitive edge; where the business is lagging and perhaps, require improvement in resource utilization, time maximization, cost minimization, and productivity to achieve desired level of performance (Tomlinson, 2011). Profitability, liquidity, growth, innovation, customer satisfaction, market share, productivity, leverage, human resource management, managerial quality, and product/service quality are some of the major indicators often employed to measure the level of firm’s performance (Dess & Robinson, 1984; Carton, 2004).

However, these indicators may be measured either subjectively or objectively (Zhou Hu, & Shi, 2015). Subjective approach to the measurement of firm performance depends on self-reported perception of the target audience about the firm whereas, objective approach relies on documented past records or financial statements of the firm (Rauch, Wiklund, Lumpkin & Fress, 2009). Due to lack of publication requirements for small and medium enterprises, extant literature suggests the utilization of subjective approach to measure SME performance (Frank et al., 2010; Rua, França, & Fernández Ortiz, 2018). Besides, Gnizy, Baker, and Grinstein (2014), as well as Zaccar and Dayan (2018) argue that subjective approach to assess performance is closely correlated with objective approach. Therefore, subjective measurement approach was employed to assess SME performance in the present study.

Entrepreneurial orientation (EO)

The conceptualization of EO as a strategic resource of the firm can be traced to Mintzberg (1973) and Khandwalla (1976). These authors argue that firm performance is predominantly determined by a combination of factors comprising strategic orientations, organizational qualities, and environmental exigencies. Therefore, a combination of at least two or more factors in a single study may provide robust understanding about firm performance (Halkal, 2015). Apart from Mintzberg (1973) and Khandwalla (1976), Miller (1983), Covin and Slevin (1989), and Lumpkin and Dess (1996) are also prominent contributors to the concept of EO. These authors are widely regarded among the first to link the construct with firm performance. For instance, Covin and Slavin (1989) investigate the effectiveness of strategic postures in hostile business setting. The authors revealed EO as one of the key strategic postures that influence firm performance. Also, Lumpkin and Dess (1996) in an attempt to explain the interplay between EO and firm performance, proposed that EO may be more strongly related to performance when it is linked with the right courses of action and resources.

Two approaches exist as to the conceptualization of EO. For example, EO’s conceptualization by Covin and Slevin (1989), and Miller (1983) is more phenomenon-focused. That is, it is about what EO looks like. Whereas in the views of Lumpkin and Dess (1996), EO is more domain-focused. That is, it states where to look for EO (Covin & Wales, 2012). In addition, it is worth noting that there is no generally acceptable conceptual measurement for EO construct. Basically, researchers commonly acknowledge the difference between unidimensional and multidimensional perspectives. The unidimensional perspective which is often referred as a composite measurement of EO, is mostly identified with Covin and Slevin (1989), and Miller (1983). On the other hand, multidimensional view of EO which is mostly associated with Lumpkin and Dess (1996), stress that EO’s dimensions can affect performance independently thus, should be treated individually.

The present study conceptualizes EO in line with Covin and Slevin’s, and Miller’s conceptualization which view EO within the context of proactive thinking, risky decision making to engage in innovative business activities. This is premised on evidence in extant literature that majority of EO studies employed this perspective (Rauch et al., 2009; Wales, 2016; Wales, Gupta & Mousa, 2013). Proactive thinking refers to actions that are opportunity-seeking and forward-looking in nature which aspire a firm to address future needs and demands of target markets ahead of rivals.

According to Anderson et al. (2015), proactiveness could manifest in decision to enter into new product line, seek to create first-mover advantage, and market leadership position. Risk-taking is the propensity to engage large amount of resources in risky business activities with the probability of high returns as well as high failure (Covin & Slevin, 1989). While innovativeness refers to propensity to engage in creative processes/procedures and/or firm products improvement/development through experimentation and feasibility study, thereby embracing novelty practices at the expense of established practices (Rauch et al., 2009).
Access to debt finance

Access to debt finance may be described as the availability of financial resources from external sources ranging from loan facility, equipment leasing, financial services, to trade credit from financial institutions, suppliers or business partners (Kelley, Singer, & Herrington, 2012). The relevance of access to financial resources has been stressed in the literature. For instance, Kumar (2005) states that availability and accessibility of financial resources will go a long way to positioning business ventures strategically to deliver superior performance and consequently fulfill their role of socioeconomic growth and development of nations. Similarly, Fatoki (2012) points out that access to debt finance improves firm’s performance. Also, according to Kasseah, Anchaz, and Tandrayen-Ragoobur (2013), availability of external finance is critical to the survival, growth, and development of any kind of business ventures, especially small and young enterprises. In what appear to be confirmation of the foregoing, Adomako, Danso, and Ofori Danoah (2016) found that SMEs’ ability to survive, grow and develop depends largely on availability of external finance. Therefore, in line with Kelley et al. (2012), access to debt finance is defined in this study as the availability of financial resources from external sources ranging from loan facility, equipment leasing, financial services, to trade credit from financial institutions, suppliers or business partners.

EO and firm performance

Rauch et al. (2009), Wales (2016) Wales et al. (2013) observe that extant literature has widely acknowledged EO as one of the major antecedents of firm performance. This is premised on the value of EO as a critical strategic posture that enable firms to predict, identify and pursue market opportunities by committing large amount of resources to develop/improve new/existing products or services. Empirically, Gruber-Muecke and Hofer (2015) find that EO activities create avenue for firms to influence market behavior by launching new products in the market thereby, drive firm performance positively and significantly. Similarly, Gupta and Batra (2016) conducted a study to determine the relationship between EO and performance of manufacturing SMEs in the Punjab Province of India. Using a data collected from 198 participants, the results indicate that the tie between EO and firm performance is positive and significant.

In the same vein, Rodríguez-Gutiérrez, Moreno, and Tejada (2015) examine the sources of superior business performance and competitiveness of SMEs in Spain. Empirical analyses indicate that entrepreneurial characteristics in terms of identifying new markets and doing things in new ways positively and significantly influence business performance. Another study conducted by Al-Dhaafri et al. (2016) to examine the link between EO and organizational performance among 111 police sections in Dubai. The outcome of the PLS-SEM analysis points out that EO significantly affect organizational performance. Further, the positive relationship between EO and firm performance has been stressed. Lee and Chu (2017) investigate the influence of EO on performance Taiwanese firms. Drawing from a contingency perspective, empirical evidence reveals that EO exerts positive and significant influence on firm performance. Fadda and Sørensen (2017) point out that EO wields significant and positive impact on the performance of accommodation firms in Sardinia region of Italy. In another study, Zhai et al. (2018) explore the ties between EO, absorptive capacity, environmental dynamism and SMEs’ performance with emphasis on technological innovation. The results of regression analyses indicate a positive and significant tie between EO and innovation performance. Also, Habeeb et al. (2019) in a survey of SME owners/managers operating in Iraq, report a significant influence of EO on business performance.

On the contrary, Frank, et al. (2010) investigate the effects of EO on business performance among 125 firms in Austria. Results of the hierarchical linear regression analyses show that EO has negative impact on business performance. Veidal and Korneliussen (2013) survey a sample of 244 Norwegian SMEs in the food business. Output of the Structural Equation Modeling (SEM) highlight that EO is not directly related to firm performance. Additionally, Alegre and Chiva (2013) conducted a research to examine the relationship between EO and firm performance in ceramic industries in Spain and Italy. Considering the responses of 182 respondents, the study reports a nonsignificant relationship between EO and firm performance. Similarly, Jiménez et al. (2014) analyze the effect of EO, LO and radical innovation on firm performance in Brazilian companies with more than 100 employees from various industries across the country. The findings reveal that there is no significant relationship between EO and firm performance. Further, the study conducted by Pett and Wolff (2016) exhibit insignificant relationship between EO and profitability dimension of firm performance. On the part of Kantur (2016), there is no direct relationship between EO and firm performance. Yet, Yoon and Solomon (2017) report an inverted U-shaped relationship between EO and firm performance.

Given the aforementioned empirical evidence, it may be noted that there exists inconsistency in findings pertaining to the nexus between EO and firm performance. However, we propose that the SMEs owners/managers in developing economy like Nigeria embrace a business culture that is classify as entrepreneurially oriented, they might be well equipped to identify and explore market opportunities even with high uncertainty of returns to introduce a value to the market ahead of competitors. Specifically, if SMEs continually press to predict market needs, mobilize and commit resources in attempt to meeting the market needs, and by being among the first to lunch new products/services or processes/procedures that may best address the market needs and experience superb performance. This has theoretical connotation in the sense that EO is perceived as a veritable intangible resource of the firm which may have tremendous impact on performance. This assumption aligns with the tenets of resource-based view (RBV) theory which postulates that if a firm can get hold of varied resources that are valuable, rare, inimitable and non-substitutable (VRIN) to initiate and execute strategic actions in a unique manner, such firm may stand to achieve competitive edge to perform better than others in the marketplace (Barney, 1991). Therefore, based on empirical evidence and theoretical backing, we developed the following hypothesis:

Hypothesis 1: EO will be positively related to SME performance.

Access to debt finance as a moderator on the relationship between EO and SME performance

Access to debt finance can be viewed as the availability of financial resources from external sources ranging from all forms of loan, equipment leasing, financial services, to trade credit from suppliers or business partners (Kelley et al., 2012). According to Kasseah et al. (2013), availability of financial resource is critical to the survival of any kind of business ventures. In what appear to be confirmation of the foregoing statement, Adomako et al. (2016) found that SMEs’ ability to grow, develop, and thrive in the marketplace depends on availability of finance. Similarly, entrepreneurial activities such as proactiveness, risk-taking, and innovativeness require time and huge financial resources to eventually impact on firm performance (Eisenhardt & Martin, 2000; Wiklund and Shepherd, 2005; Zhou et al., 2015). Nevertheless, huge financial resource problem has been identified as one of the major factors militating against the development of SMEs especially in emerging economies like Nigeria (Chukwunweike, Ani, Ocheje, Akunna & Gladys, 2015;
Rua et al., 2018; Zakaria et al., 2017). Consequently, SMEs may lack the means to engage in serious entrepreneurial activities, that may allow for impressive performance if external financial resources are not within their reach (Tang, Tang, Marino, Zhang, & Li 2008; Wiklund & Shepherd, 2005).

Besides, evidence in the extant literature demonstrates that EO-firm performance relationship research is still far from being conclusive due to inconsistency in findings. For example, there exist positive and significant relationship (Al-Dhaifri et al., 2016; Fadda & Sørensen, 2017; Gupta & Batra, 2016; Habeen et al., 2019; Lee & Choi, 2017; Zhai et al., 2018; Zakaria et al., 2017; Zhang & Zhang, 2012), insignificant relationship (Alegre & Chiva, 2013; Jiménez et al., 2014; Pett & Wolf, 2016), no direct relationship (Veidal & Korneliussen, 2013), and U-shaped relationship (Yoon & Solomon, 2017). A scenario of this kind suggests the introduction of moderating variable(s) to strengthen or weaken the relationship (Baron & Kenny, 1986).

Therefore, based on the recommendations of Asah et al. (2015), we argue that as a product of the firm’s external environment, and as a tangible resource of the firm, access to debt finance might enhance the positive impact of EO on SME performance. This presumption is in consonance with the platform of the RBV theory which posits that firms’ competitiveness, as well as impressive sustained performance is a function of utmost utilization of bundle of resources (i.e., tangible and intangible) that are unique from those of other competitors ( Amit & Schoemaker, 1993; Barney, 1991; Grant, 1991; Wernerfelt, 1995). Drawing from the argument in the literature, as well as the perspective of the RBV, we envisage a moderating effect of access to debt finance on the positive relationship between EO and SME performance. Thus:

**Hypothesis 2:** Access to debt finance will moderate the positive relationship between EO and SME performance. Specifically, the relationship will be enhanced the more SMEs have access to external financial resources than they would not.

**METHODOLOGY**

**Sampling Design**

In this study, a survey via structured questionnaire was administered to manufacturing SME owners/managers in north-central region of Nigeria. Employing a cross-sectional research design approach, data were collected once and within the space of four months. Given Nigeria’s perspective, SMEs are businesses with employee base of not fewer than 10 employees but not greater than 199 employees, a total of 3,438 SMEs into manufacturing business were identified in the study area based on records of Small and Medium Enterprises Development Agency of Nigeria (SMEDAN) and National Agency for Food and Drug Administration Control (NAFDAC). In line with the provision for cluster sampling technique as suggested by Gay and Diehl (1992), we employed cluster sampling in the present study. Altogether, there are seven states in north-central region of Nigeria. Accordingly, the population was grouped into seven clusters afterward, a raffle was conducted to select a cluster for the survey. In the end, Nasarawa State emerged as the cluster selected for the survey, thus, with the aid of research assistants, questionnaire was self-administered to owners/managers of 519 manufacturing SMEs in the state. After multiple follow-ups, a total of 329 completed questionnaires were returned. That notwithstanding, only 305 were duly completed and deemed valid for analysis. This figure is considered adequate for onward statistical analysis (Hair, Black, Babin, & Anderson, 2010). The statistical package for social science (SPSS) version 23 was utilized for initial data screening whereas, partial least squares-structural equation modeling (i.e., SmartPLS-SEM version 3.2.7) was employed for the main data analyses. PLS-SEM was employed because of its ability to perform simultaneously, numerous analyses in a single model (Lowry, Gaskin 2014).

**Measures**

As a latent construct, EO was measured with a previously developed and used instrument adapted from Zhang et al. (2014). Following Anderson et al. (2015), EO was considered as a second-order construct with reflective-formative approach consisting of three dimensions as first-order constructs (i.e., proactiveness, risk-taking, and innovativeness). These three dimensions had four indicators each meaning EO was measured by 12 items altogether. With respect to access to debt finance, a seven-item instrument was adapted from Martin, Cullen, Johnson, and Parboteeah (2007) to assess the firm’s ability to access external financial resources. On the part of SME performance, it was assessed using an eight-item scale adapted from Spillan and Parnell (2006). Based on their perception, SME owners/managers were required to indicate the level of performance recorded over the past five years. Perception of owners/managers is subjective in nature. However, this is seen as suitable and popular approach to evaluating SME performance because to measure performance objectively is often a difficult task due to lack of publication requirements for SMEs (Rua et al., 2018).

All the variables in this study, were rated on a five-point Likert scale ranging from “1” (strongly disagree) to “5” (strongly agree). This was done to create enough room for participants to demonstrate the extent to which they agree or disagree with each statement regarding to their firm’s level of entrepreneurial activities, access to external finance, and performance. It is equally pertinent to mention that all the instruments adapted in this study have been previously validated and proven to possess good psychometric properties above the 0.70 threshold as recommended by Nunnally (1978). Further, the questionnaire was subjected to pre-test by seeking experts’ comments, opinion, and/or input in terms of wording, sequence of statements, clarity of statements, and general structure of the survey instrument.

**RESULTS**

**Common method variance (bias)**

In variance-based SEM, full collinearity test has emerged as one of the reliable tests for checking the incidence of common method bias in dataset (Kock & Lynn, 2012). A full collinearity test creates avenue for collinearity diagnosis among all latent variables in a research model because it handles both vatical and lateral collinearity issues. This test of collinearity can be conducted via the following guidelines as stated in Kock and Lynn (2012): firstly, in the original dataset, create a random dummy variable with a single item whose score may range between 0 and 1. Secondly, specify a path model where all main constructs are consider as predictors pointing at the random dummy variable. Thirdly, perform PLS-SEM algorithm and check for VIF value for each construct in the PLS report. Given the results, any VIF value equal to or greater than 3.3 indicates the presence of collinearity in the model (Kock & Lynn, 2012). Therefore, Table 1 presents the VIF score for the respectively latent variables obtained from a full collinearity test.

<table>
<thead>
<tr>
<th>Table 1. Full Collinearity Result</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Entrepreneurial orientation</strong></td>
</tr>
<tr>
<td><strong>Access to debt finance</strong></td>
</tr>
<tr>
<td><strong>Firm performance</strong></td>
</tr>
<tr>
<td>1.038</td>
</tr>
<tr>
<td>1.150</td>
</tr>
<tr>
<td>1.140</td>
</tr>
</tbody>
</table>

As stated earlier, a VIF value equal or greater than 3.3 denotes the existence of collinearity in the model. Therefore, based on the information in Table 1, collinearity does not exist among latent variables that may appear in the model.
variables in the model. This implies that the present study has no major problems of common method bias.

**Measurement model analysis**

As mentioned earlier, partial least square-structural equation model (PLS-SEM) was employed to assess the reliability and validity of this model. Table 1 presents the results of measurement model.

<table>
<thead>
<tr>
<th>Second Order Construct</th>
<th>First Order Construct</th>
<th>Item</th>
<th>Loadings</th>
<th>AVE</th>
<th>Cronbach's Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entrepreneurial Orientation</td>
<td>Proactiveness</td>
<td>PR0 1</td>
<td>0.662</td>
<td>0.6</td>
<td>0.806</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PR0 2</td>
<td>0.814</td>
<td></td>
<td>36</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PR0 3</td>
<td>0.875</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PR0 4</td>
<td>0.822</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Risk-taking</td>
<td>RT0 1</td>
<td>0.810</td>
<td>0.6</td>
<td>0.832</td>
</tr>
<tr>
<td></td>
<td></td>
<td>RT0 2</td>
<td>0.876</td>
<td>66</td>
<td>88</td>
</tr>
<tr>
<td></td>
<td></td>
<td>RT0 3</td>
<td>0.790</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>RT0 4</td>
<td>0.795</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Innovativeness</td>
<td>IN0 1</td>
<td>0.778</td>
<td>0.5</td>
<td>0.771</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IN0 2</td>
<td>0.841</td>
<td>94</td>
<td>53</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IN0 3</td>
<td>0.704</td>
<td>2</td>
<td>754</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IN0 4</td>
<td>0.754</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Access to debt finance</td>
<td>ADF 01</td>
<td>0.848</td>
<td>0.5</td>
<td>0.700</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ADF 02</td>
<td>0.798</td>
<td>33</td>
<td>17</td>
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<tr>
<td></td>
<td></td>
<td>ADF 03</td>
<td>0.652</td>
<td>0.592</td>
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<td></td>
<td></td>
<td>ADF 04</td>
<td>0.760</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>SMEs Performance</td>
<td>FP0 1</td>
<td>0.685</td>
<td>0.5</td>
<td>0.761</td>
</tr>
<tr>
<td></td>
<td></td>
<td>FP0 2</td>
<td>0.710</td>
<td>13</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td></td>
<td>FP0 3</td>
<td>0.772</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>FP0 4</td>
<td>0.645</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

On the other hand, discriminant validity for the reflective measurement model was assessed through the Heterotrait-Monotrait ratio (HTMT) and presented in Table 3.

<table>
<thead>
<tr>
<th>Construct</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Proactiveness</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.433</td>
</tr>
<tr>
<td>2 Risk-taking</td>
<td>0.507</td>
<td>0.290</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Innovativeness</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 Access to Debt Finance</td>
<td>0.281</td>
<td>0.394</td>
<td>0.524</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 SMEs Performance</td>
<td>0.489</td>
<td>0.383</td>
<td>0.430</td>
<td>0.450</td>
<td></td>
</tr>
</tbody>
</table>

The results of the analysis as indicated in Table 3 show that the highest case of correlation was between innovativeness and access to debt finance. This shows an acceptable level of HTMT because, the value is less than ceiling point of 0.85 as suggested by Henseler, Ringle, and Sarstedt (2015).

**Formative measurement model assessment**

In evaluation of formative measurement model, assessment of convergent validity of the formatively measured latent variable via a redundancy analysis is fundamental (Ali, Rasolimanesh, Sarstedt, Ringle, & Ryu, 2018; Ringle, Sarstedt, Mitchell & Gudergan, 2018). To accomplish the task of redundancy analysis, a global item which summarizes the concept of entrepreneurial orientation was designed and incorporated in the survey instrument. Basically, the global item sought to gather respondents’ degree of agreement or disagreement on their respective enterprise’s overall level of involvement in entrepreneurial activities in terms of innovativeness, proactiveness and risk-taking on a Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Consequently, the global item was adopted as an endogenous variable to test the convergent validity of the formative measurement of entrepreneurial orientation (EO). Hair et al. (2017) suggest that to establish an acceptable convergent validity for a formative construct, the path coefficient that links the exogenous construct (formatively measured construct) with the endogenous construct (global single item) should be greater than (> ) 0.70. To this end, a new PLS path model was created for EO as a construct that is measured formatively to predict the endogenous variable (i.e., global single item construct) as demonstrated in Figure 1.

![Figure 1. Redundancy Analysis](image)

Evidence abounds in Table 2 that the reliability and internal consistency requirements have been achieved as both Cronbach’s alpha and composite reliability for the reflective constructs are above the benchmark of 0.70. Also, as displayed in Table 2, the present model achieved the threshold of 0.50 per cent average variance extracted (AVE) for all the reflective constructs. It means that more than 50 per cent variation in each construct is explained by their respective indicators as adapted in this study (Hair, Hult, Ringle, & Sarstedt, 2014).
As mentioned earlier, a variance inflation factor (VIF) score of equal to or greater than 3.3 indicates the presence of collinearity among variables. Based on the analysis, the highest VIF score for the formative indicators is 1.299 in respect of proactiveness (see Table 4). This shows that the highest VIF value for formative indicator weight estimates is far below the threshold value of 3.3, implying that collinearity is not an issue in this formative measurement model assessment. Further, to ascertain the indicator weights’ level of significance, bootstrapping approach with 5,000 samples tested one-tailed at 0.05 significant level was utilized and presented in Table 4.

### Table 4. Formative Indicator Weights and Level of Significance

<table>
<thead>
<tr>
<th>Formative Construct</th>
<th>Formative Indicators</th>
<th>Outer weights t-value</th>
<th>VIF</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entrepreneurial orientation</td>
<td>Innovativeness</td>
<td>0.392</td>
<td>11.63</td>
<td>1.19</td>
</tr>
<tr>
<td></td>
<td>Proactiveness</td>
<td>0.511</td>
<td>16.22</td>
<td>1.29</td>
</tr>
<tr>
<td></td>
<td>Risk-Taking</td>
<td>0.433</td>
<td>15.41</td>
<td>1.16</td>
</tr>
</tbody>
</table>

As demonstrated in Table 4, the results reveal that all the indicator weights are significant at <1 per cent significance level. This suggests that these formative indicators truly measured and significantly contributed in forming the latent variable, EO.

Overall, the outcomes of both reflective and formative measurement model evaluation signify that all latent variable measures utilized in the present study showcase acceptable levels of reliability and validity. Thus, the structural model assessment may be conducted.

### Structural model results

To evaluate the hypothesized relationships, the structural equation model was employed using bootstrapping approach (Hair et al., 2014). In the current study, the structural model was evaluated based on the sign (i.e., whether positive or negative), and whether significant or non-significant. Results of the path coefficients obtained from SmartPLS-SEM analysis are presented in Table 5.

### Table 5. Structural Model Path Coefficients of EO and SME Performance

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Path Coefficient</th>
<th>t-value</th>
<th>p-value</th>
<th>F²</th>
<th>Conclusion</th>
</tr>
</thead>
</table>
| H₀: EO | β = | -0.24 | 0.001 | 0.24 | |%
| H₁: EO | > FP | 0.36 | 0.05 | 37 | 0.02 | 16 | 0.4 | Supp |

Note: EO = entrepreneurial orientation, FP = SME performance

As shown in Table 5, the empirical analyses of predicted positive and significant relationship between EO and SME performance reveal that EO is positively and significantly related with SME performance (β = 0.361; t-value = 6.537; p<0.01). In the same vein, confidence intervals at 5% lower limit (LL) and 95% upper limit (UL) were put into consideration to confirm the results. As indicated in Table 5, (LL = 0.270; UL = 0.452) there is no zero between LL and UL. This means that both values are having positive signs. Based on these results, hypothesis 1 is supported.

One of the crucial components for assessment of structural model is coefficient of determination- $R^2$ (Henseler, Ringle, & Sinkovics, 2009). The $R^2$ represents the variance in a criterion (dependent) variable that is explained by the predictor (independent) variable(s) of a model (Hair et al., 2014). Findings of the current study demonstrate that the predictor variables (i.e., EO and access to debt finance) explained 27 per cent of variation in SME performance as a dependent variable. This percentage is considered adequate for predictive accuracy of a model (Hair et al., 2014). Equally of importance in structural model evaluation, is the magnitude of contribution (F) of each predictor on the outcome variable. In line with the specification of Cohen (1988), EO as a predictor variable exerts a moderate (0.164) effect size (F) on SME performance as presented in Table 5. Also, the Stone-Geisser test of predictive relevance ($Q^2$) of the model was assessed. The $Q^2$ evaluates the relative ability of an inner model (structural model) in predicting an endogenous construct (Henseler et al., 2009). In this study, results of the construct cross-validated redundancy test show a $Q^2$ value of 0.24 for SME performance. This result is greater than zero (Chin, 1988). Therefore, given that the $Q^2$ value is 0.24, the present model has predictive relevance (Hair et al., 2014).

### Moderating effect of access to debt finance

The moderating effect of access to debt finance on the relationship between EO and SME performance was envisaged in the study. According to Baron and Kenny (1986), a moderator either strengthens, weakens or reverses the relationship between independent and dependent variables. In this study, to ascertain the moderating role of access to debt finance on EO-SME performance relationship, we adopted the two-stage approach to assess the significant level of the interaction effect between EO and access to debt finance on SME performance. Results of the interaction effect are presented in Table 6.

### Table 6. Results of hypothesis for Moderation Effect

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Path Coefficient</th>
<th>t-value</th>
<th>p-value</th>
<th>F²</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>H₀: EO</td>
<td>β =</td>
<td>-0.136</td>
<td>2.489</td>
<td>0.05</td>
<td></td>
</tr>
<tr>
<td>H₁: EO</td>
<td>&gt; FP</td>
<td>0.36</td>
<td>0.05</td>
<td>37</td>
<td>0.02</td>
</tr>
</tbody>
</table>

Note: EO = entrepreneurial orientation, AD = access to debt finance, F = SME performance

Table 6 exhibits that the interaction term of EO and access to debt finance is significant, and the moderating effect strengthens the positive relationship between EO and SME performance (β = 0.136; t-value = 2.489; p<0.05). Thus, confirming hypothesis 2. This entails that the easier SME owners/managers can access financial resources from external sources, the better the impact of entrepreneurial orientation on their firm’s performance. However, this must be done with relative caution as the magnitude (F) of the interaction term on SME performance is small (0.037) based on Cohen’s (1988) classification.

### DISCUSSION AND IMPLICATIONS

Basically, the current study attempts to investigate the relationship between EO and SME performance, as well as moderating effect of access to debt finance on the relationship between these constructs (i.e., EO and SME performance) among manufacturing SMEs in north-central region of Nigeria. This research framework is design within the purview of resource-based view (RBV) theory (Barney, 1991). The RBV theory stipulates that firm’s competitiveness, as well as impressive sustainable performance may be achieved if the firm makes utmost utilization of bundle of resources (i.e., tangible and intangible) that are distinct from those of competitors in the market. Access to debt finance represents the tangible resources component of RBV while, EO denotes the intangible resources component of RBV theory.
The statistical analysis of the present study provides robust empirical evidence regarding the positive and significant impact of EO on SME performance. This result suggests that EO is a prominent predictor of firm performance. This confirms the underlying prediction of this study that a higher degree of entrepreneurial activities (i.e., take a first-mover advantage to anticipate, identify and utilize business opportunity; take bold step to commit substantial amount of resources into venture[s] with little or no certainty of returns; to introduce new product(s) to the market) would bring about improved SMEs performance in marketplace. Thus, SME owners/managers that lay much emphasis on encouraging and supporting the development of entrepreneurial activities are on track to increasing their performance in the business environment. This finding concurs with findings of previous studies (see, Al-Dhaafri et al., 2016; Fadda & Sørensen, 2017; Habeeb et al., 2019; Lee & Chu, 2017; Zhai et al., 2016). For instance, Habeeb et al. (2019) reveal that high degree of entrepreneurial activities among SMEs in Iraq had significant influence on their performance in the marketplace. On the other hand, finding of the current study tends to be at variance with the outcomes of previous studies such as (Frank, 2010; Kantur, 2016; Pett & Wolff, 2016; Veidal & Korneliussen, 2013; Yoon & Solomon, 2017).

Theoretically, this finding supports the tenets of resource-based view (RBV) theory of the firm which postulates that if a firm can get hold of varied resources that are valuable, rare, inimitable and non-substitutable (VRIN) to initiate and execute unique actions, such firm may stand to achieve competitive edge to perform better than others in the marketplace (Barney, 1991). In this sense, EO is considered an intangible resource of the firm which is VRIN in nature that has tremendous impact on performance. It follows that SME owners/managers should consistently strive to predict market needs, identify market opportunities, mobilize and commit reasonable amount of resources in attempt to take advantage of market opportunities. By so doing, SMEs would be at the forefront to introduce new products/services or processes/procedures that may best address varied market needs to experience superb performance.

Also, considering the huge financial resource problem among SMEs (especially in emerging economies like Nigeria), as well as the enormous financial requirement for effective entrepreneurial activities, the moderating effect of access to debt finance as a tangible resource on the relationship between a firm’s intangible resource (EO) and SME performance was predicted, evaluated, and established. This implies that the higher the level of access to external financial resources, the higher the degree of firm’s entrepreneurial activities, and possibly the better the firm’s competitiveness and performance in the marketplace. In other words, the more SME owners/managers have access to external financial resources, their levels of entrepreneurial activities would most likely increase to improve their performance in the marketplace. This finding has provided evidence that supports the position of Tang et al. (2008) as well as Wiklund and Shepherd (2005) that any strategic action plan without adequate financial support, their implementation may fail woefully. In another development, this finding corroborates with the findings of related past studies such as Gupta and Batra (2016) revealed that demand growth and competitive intensity exert moderating influence on the tie between EO and performance of SMEs. Also, Lee and Chu (2017) found that family governance strengthened EO-performance relationship.

Therefore, given the findings of this study, it has addressed a vital research gap by offering empirical evidence about the moderating effect of access to external financial resources on EO-performance relationship. Indeed, the existing knowledge on EO-performance has been extended. Also, SME owners/managers may be motivated or encouraged to seek for external financial resources to facilitate entrepreneurial activities in their business undertakings. On the part of policy makers, SME support agencies, financial institutions, and other support groups might be inspired to pay more attention on providing enabling platform whereby SMEs could further access external financial resources to implement strategic intentions.

LIMITATION AND FURTHER RESEARCH DIRECTION

Like other studies, this study has some limitations that future studies should bear in mind for dependable research outcome. In this study, although entrepreneurial orientation (EO) was formatively measured with the three main dimensions (i.e., innovativeness, proactiveness and risk-taking) as proposed by Miller (1983)/ Govin and Slevin (1998), it has been argued to have two additional dimensions which are competitive aggressiveness and autonomy (Lumpkin & Dess, 1986). Hence, future research should include these dimensions of EO to establish their significant contributions (weight estimates) in forming EO as a latent variable. Secondly, the current study utilized data collected from manufacturing SMEs only, this may limit the extent to which generalization of findings could be made. Therefore, future research may consider other sectors (e.g., service) whether there would be no variation in findings.

CONCLUSION

With regards to SME performance in the marketplace, this study exhibits that EO as an intangible resource of the firm is a key factor in opportunity identification, investing in atmosphere of uncertainty, and being first or among the first to introduce new product(s), administrative techniques/processes or procedures to the market. Additionally, the study demonstrates that access to external financial resources play a moderating role on the relationship between EO and SME performance. Thus, access to debt finance is found to be a vital element of tangible resources that facilitates or enhances entrepreneurial activities within the setting of small and medium enterprises for better performance. This implies that the higher SME owners/managers have access to external financial resources, the better the stand to wield/evolve robust entrepreneurial activities/skills to deliver superior value to the marketplace. Thus, SME owners/managers seeking to improve the performance of their enterprise would benefit from the findings of this study.

REFERENCES


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