



# Does Entrepreneurial Orientation Affect the Performance of Women-owned SMEs in the Banditry Zone? The Empirical Evidence from Kebbi State, Nigeria

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## **Authors' contributions**

*This work was carried out in collaboration between both authors. Both authors read and approved the final manuscript.*

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## **ABSTRACT**

This study was carried out to investigate how women-owned small and medium-sized businesses in Kebbi State, Nigeria, have fared in the face of banditry by using entrepreneurial orientations. In order to gather information from women-owned SMEs, a cross-sectional survey methodology was adopted. A cluster sampling approach was used to select 234 participants at random for the study and questionnaires used as a research instrument for data collection. The study's hypotheses were tested using partial least squares structural equation modeling (PLS-SEM). The result found that taking risks, being aggressive in the marketplace, and being independent are crucial entrepreneurial orientations for the success of SMEs in Kebbi State, Nigeria. It is assumed that innovation will boost business performance, but the results of this study show that innovation has

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the opposite effect on women-owned businesses, contradicting this expectation. The study concluded that taking risks, being aggressive in a competitive environment, and having autonomy benefit SMEs' performance. The study recommended that Owner-managers, decision-makers, and researchers can benefit greatly from the findings of this study in order to better understand how entrepreneurial orientations affect business performance. Owner-managers of SMEs should be encouraged and emphasize on risk-taking, independence, and competitive aggression to enhance their performance and economic effect. It is significant to highlight that placing too much emphasis on innovation should be minimized.

*Keywords: Innovativeness; risk taking; competitive aggressiveness; autonomy; SMEs performance.*

## 1. INTRODUCTION

The state of the business environment is changing day by day. Today's rapid growth of new technology and complex global economy has made business challenging to survive and achieve success in the competitive market environment. To gain a position in business is essential for a business to be entrepreneurial in nature [1]. Conferring Covin and Slevin [2] entrepreneurial firms are the firms where the top-level manager has entrepreneurial management styles, operating management philosophy, firm's strategic decision, and focus on entrepreneurial orientation. Entrepreneurial orientation (EO) is a key concept when executives are crafting strategies in the hopes of doing something new and exploiting opportunities that other organizations cannot exploit. EO refers to the processes, practices, and decision-making styles of organizations that act entrepreneurially (Lumpkin & Dess, 1996). Any organization's level of EO can be understood by examining how it stacks up relative to three dimensions: (1) innovativeness, (2) proactiveness, (3) and risk taking. These dimensions are also relevant to individuals. Entrepreneurial orientation (EO) is measured at both the organizational and the individual levels. Those individuals who are less risk averse, innovative thinkers, and competitive tend to have a higher EO and greater success at starting a business. Online EO assessment tools exist for those wishing to determine their EO. It is important to note that EO is not only related to high tech start-ups. Starting a lawn care business or a beauty shop are very valid and necessary entrepreneurial ventures, and will have a better chance of success if an entrepreneur possesses a higher EO [3].

### 1.1 Innovativeness

Entrepreneurs are deemed innovative by driving change and conferring a competitive advantage to businesses (Kreiser, Marino, Dickson, & Weaver, 2010). This encompasses nurturing the

creation of novel products, services, and technological advancements (Fan, Qalati, Khan, Shah, Ramzan, & Khan, 2021). Innovation has the potential to foster initiatives that reshape both social and economic frameworks (Pineiro-Chousa, Lopez-& Cabarcos, Romero-Castro, & Perez-Pico, 2020). On one hand, businesses can swiftly enter markets due to the inventiveness of their founders, enabling them to consistently introduce fresh products and services while adapting to market needs (Covin & Wales, 2019). Novel products or services can equip SMEs to navigate volatile markets more effectively (Rhee, Park, & Lee, 2010). Conversely, enterprises can create offerings with higher profit potential and capture larger market shares owing to entrepreneurial innovation (Linton, 2019; Rauch, Wiklund, Lumpkin, & Frese, [4]. leading to enhanced entrepreneurial performance (Parida, Pesamaa, Wincent, & Westerberg, 2017). Building on this foundation, Nair (2020) advocates for the positive influence of innovation on the success of female entrepreneurs. As per Gundry et al. (2014), the innovativeness exhibited by female business owners elevates the firm's market value and significantly contributes to the sustainability of firm growth.

For a company to generate novel products and approaches, it must foster original thinking, creativity, experimentation, and inventive problem-solving (Lumpkin & Dess, 1996). The concept of innovation can be defined as the progression of society resulting from the application of fresh ideas and state-of-the-art methods in business operations [50-53]. These innovative ideas and methods spur the creation and advancement of new products, leading to increased consumer demand [39-42]. Furthermore, innovation encourages product differentiation, enhancing the market position and acceptance of the product compared to its competitors [5]. Hence, reinforcing existing skills, acquiring new skills, or transitioning from established skills to generating new ideas and capabilities can all be seen as instances of

innovation (Certo et al., 2009). Multiple studies suggest a positive link between innovation and SME performance (Rhee, Park, & Lee, 2010; Hughes & Morgan, [5].

Hypothesis H1: Innovativeness has a positive relationship with business performance of women own enterprises in Kebbi State.

## 1.2 Risk-Taking

In the realm of small business ownership, individuals consistently navigate a challenging landscape where strategic risk-taking is essential for venturing into new industries or making investments. These entrepreneurs allocate their limited resources in a fiercely competitive environment, fully aware of the potential absence of returns or even the prospect of losses [43-46]. The act of embarking on a pursuit inherently carries the risk of failure, loss, or unfavorable outcomes. Entrepreneurial pursuits and embracing risk are inherently intertwined [6]. Altinay & Wang, (2011). Lüthje and Franke (2003) emphasized a direct connection between a greater inclination for risk-taking and entrepreneurial engagement, while Kirby (2004) proposed that entrepreneurs exhibit a proclivity for risk-taking. Existing literature and a multitude of studies underscore the close link between risk-taking, the evolution, performance, and triumph of SMEs [7]. Ibidunni, Ogundana, & Okonkwo, [6]. Garca-Lopera, Santos-Jaén, Palacios-Manzano, & Ruiz-Palomo, [8].

At its core, risk-taking functions as a strategic approach that sets entrepreneurs apart from their competitors. Those willing to undertake calculated risks position themselves as pioneers in today's competitive business landscape, whereas those who shy away lag behind (Keh et al., 2007). In the pursuit of opportunity and progress, risk-taking remains the sole avenue. Entrepreneurs can secure a leadership position in their sector by embracing risks that their competitors are hesitant to undertake (Wang, 2016).

Hypothesis H2: Risk-taking has a positive relationship with business performance of women own enterprises in Kebbi State.

## 1.3 Competitive Aggressiveness

In simple terms, adopting a competitive aggressive stance involves surpassing competitors in performance. This encompasses proactive actions such as reducing prices,

intensifying marketing efforts, and expanding production capabilities (Lumpkin & Dess, 1996; Stambaugh, Lumpkin, Mitchell, Brigham, & Cogliser, [9] Otache & Mahmood, [10] Furthermore, competitive aggressiveness entails a company's endeavor to outshine its business rivals, characterized by assertive, dynamic, and forceful tactics aimed at rival activities to achieve organizational objectives and enhance market standing (Lumpkin & Dess, 2001). In addition, Hughes-Morgan et al. (2018) depicts competitive aggression as the inclination to consistently adopt diverse or distinct measures to confront rivals and enhance their relative competitive position.

Several studies have evidenced that engaging in assertive competitive behaviors can be advantageous for company performance [47-49]. For instance, companies that adopt a series of enduring actions often enjoy the benefits of being early movers, thereby surpassing competitors in terms of profitability (Ferrier, 2001; Luo & Lin, 2020). However, it's worth noting that the advantages of competitive aggression might not always be sustained, as such assertive actions could potentially trigger retaliatory responses and spark competitive conflicts across the entire market, both of which may not necessarily yield positive outcomes for the participants (D'Aveni, Dagnino, & Smith, 2010). Nonetheless, research has consistently shown that robust competition enhances business performance [11] Stambaugh, Lumpkin, Mitchell, Brigham, & Cogliser, [9] Otache & Mahmood, [10].

Hypothesis H3: Competitive aggressiveness has a positive relationship with business performance of women own enterprises in Kebbi State.

## 1.4 Autonomy

Autonomy pertains to the capability of making independent decisions and executing actions (Lumpkin & Dess, 1996). It also signifies an individual's strong desire for self-reliance in formulating and carrying out an idea (Li, Huang & Tsai, 2009). As indicated by various researchers (Coulthard, 2007; Prottas, 2008; Lumpkin, Cogliser, & Schneider, [4] the provision of autonomy to all members within an organization is posited to stimulate entrepreneurial behavior and consequently enhance overall firm performance. While the positive contribution of autonomy to enhancing business performance is recognized, some studies have not been able to

establish a consistently favorable impact of this association [5].

The notion of strategic entrepreneurship and the creation of entrepreneurial value both strongly emphasize autonomy within the entrepreneurial orientation context. Enterprises that are privately owned and managed might not face issues with autonomy as their proprietors already exercise it [4]. Regarding the autonomy of micro and small businesses, Ismail (2014) demonstrates that the need for autonomy remains consistent across micro, small, and medium-sized enterprises. Consequently, this suggests that autonomous decision-making remains equally relevant irrespective of company size. Conversely, Thapa (2015) presents evidence of a positive correlation between the performance of microenterprises and autonomous decision-making.

Hypothesis H4: Autonomy has a positive relationship with business performance of women own enterprises in Kebbi State.

## **2. MATERIALS AND METHODS**

Standardized metrics are commonly employed in quantitative investigations to measure a particular concept. One of these standardized instruments that can be utilized to collect information with a reasonable level of precision and assess perspectives and sentiments regarding various matters is a survey questionnaire. For this research, a self-administered survey is employed. The population comprised 603 women-owned enterprises registered with the Corporate Affairs Commission in Kebbi State, Nigeria. The study sample size was determined to be 234 using the [12] table, and these participants were selected through a purposive sampling approach. The study follows a cross-sectional methodology, wherein all data were collected concurrently. Out of the 234 questionnaires distributed, 225 (96.3%) were retrieved and included in the data analysis phase. 9 questionnaires were not collected from the responded because some are dead while others are displaced as a result of the attack by the bandit after the distribution.

### **2.1 Measures**

We selected the most suitable measurement tools by considering their psychometric properties, relevance, and up-to-dateness. This choice was made even though previous studies had employed multiple scales to gauge the

constructs under investigation. Nonetheless, these measurements were adjusted or borrowed from different origins. To minimize potential methodological bias [13] each variable is evaluated using an established scale designed by the researchers. Furthermore, a 5-point Likert scale was utilized to rate each individual item.

### **2.2 Data Analysis**

In terms of data analysis, there exists a wide array of analytical and statistical methodologies at our disposal. However, in this study, we opted for the utilization of partial least squares structural equation modeling (PLS-SEM) with Smart-PLS 3 due to its alignment with the constructs and their measurements. This particular tool is gaining increasing popularity for assessing data across diverse academic fields [14,15]. This approach to structural equation modeling employs variance to appraise both internal and external models [16]. Within the realm of social and behavioral science research, it stands as the most commonly employed technique for quantitative data analysis (Lee et al., 2011). It boasts heightened statistical potency compared to many other statistical methods. Moreover, its distinctive capability lies in its aptitude to analyze unconventional small sample data.

## **3. RESULTS**

### **3.1 Model Assessment**

According to Henseler et al. [17] an investigator has the option to assess a reflective model within the PLS-SEM pathway model through a two-stage process. This process encompasses the evaluation of a measurement (outer) model and the evaluation of a structural (inner) model.

### **3.2 Assessment of Measurement Model**

An assessment of a measurement model involves determining an individual item's reliability, internal consistency reliability, convergent validity, and discriminant validity [18,19] Henseler et al., [17].

The first stage in PLS-SEM analysis is the evaluation of the outer model. The outer model deals with the measurement of the component, which confirms that the survey items measure the constructs they were designed to measure, thus ensuring that they are reliable and valid. To

evaluate the measurement model, previous literature had suggested an examination of the average variance extracted (AVE), composite reliability, and indicator loadings to measure convergent validity. All were evaluated and demonstrated that the survey items perfectly measured the variables [20,21].

Secondly, internal consistency reliability indicates the level at which every item on a specific subscale is evaluating the same concept (Bijttebier et al., 2000). Cronbach's alpha coefficient and composite reliability coefficient are the commonly adopted indicators of the internal consistency reliability of an instrument in a structural study [22,23,24] In this study, internal consistency reliability was assessed by examining Cronbach's alpha coefficient and composite reliability coefficient, and they were all acceptable [25,26] Peterson & Kim, [24]. Nunnally & Bernstein, 1978).

Furthermore, this study assessed discriminant validity using average variance extracted (AVE) (Fornell-Lacker criterion) and cross-loadings to measure the extent to which one construct is different from another construct. Convergent validity can be measured by calculating the AVE in the indicators that is accounted for by the focal construct (Mackenzie et al., [27]. Hence, discriminant validity was evaluated by comparing the square root of the AVE for each construct with the highest correlation of the latent construct in the matrix.

### 3.3 Assessment of Structural Model

This involved evaluating the structural model's predictive abilities and relationships between the constructs. The fundamental criteria for

evaluating a structural model in PLS-SEM are the significance of the path coefficients, coefficient determination (R<sup>2</sup>), effect size (F<sup>2</sup>), and predictive relevance of the model (Q<sup>2</sup>) [28]. A systematic model analysis of the structural model was carried out to provide a detailed understanding of the results and to test hypotheses.

Fig. 1 focuses on the analysis between the independent variable and the dependent variable.

Hypothesis H1 was developed to examine if there is a relationship between innovativeness and the business performance of women-owned enterprises in Kebbi State. Results in Table 1 and Fig. 1 were statistically insignificant, which shows a negative relationship between innovativeness and performance of women's own enterprises in Kebbi State, where  $\beta = 0.098$ ,  $t = 1.776$ , and  $p = 0.076$ , not supporting the hypothesis H1. However, Hypothesis H2 was developed to examine if there is a relationship between risk taking and the business performance of women's enterprises in Kebbi State. Results in Table 1 and Fig. 1. show that risk taking and business performance had a significant positive relationship with  $\beta = 0.105$ ,  $t = 2.125$ , and  $p < 0.034$ , supporting hypothesis H2. Similarly, hypothesis H3, which was developed to examine if there is a relationship between competitive aggressiveness and business performance, and hypothesis H4, a relationship between autonomy and the business performance of women's own enterprises in Kebbi State, were all supported as shown on both Table 1 and Fig. 1., as  $\beta = 0.389$ ,  $t = 5.599$ , and  $p = 0.000$ , and  $\beta = 0.285$ ,  $t = 3.932$ , and  $p < 0.000$ , respectively.

**Table 1. Results of hypotheses testing**

Hypothesis	B	Stand Dev	T Stat	P Values	Decision
Innovativeness -> Perf.	0.098	0.055	1.776	0.076	Not Supported
Risk taking -> Perf.	0.105	0.050	2.125	0.034	Supported
Comp. Aggressiveness -> Perf.	0.389	0.069	5.599	0.000	Supported
Autonomy -> Perf.	0.285	0.073	3.932	0.000	Supported

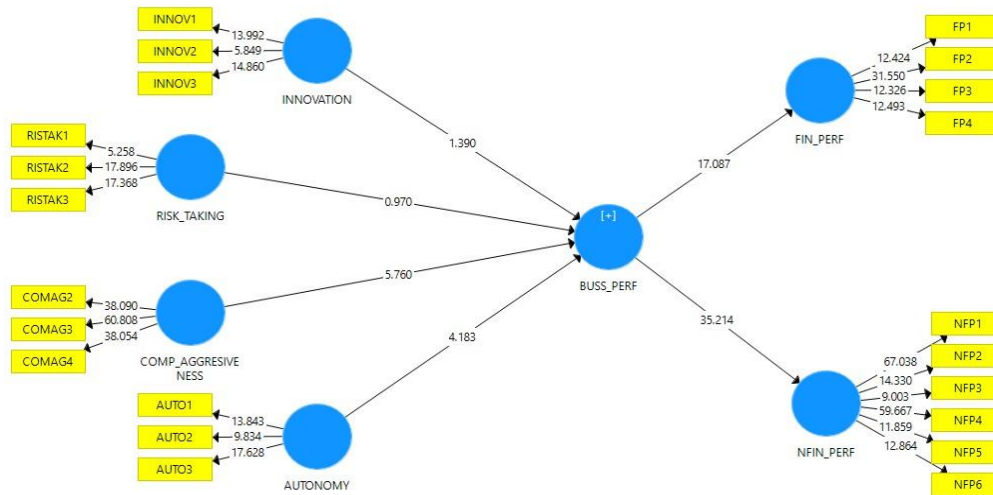
Note: In two-tailed test of significance  $p < 0.01$ \*\*\*,  $p < 0.05$ \*\* ,  $p < 0.1$ \*

**Table 2. Effect size on the endogenous latent construct cohen (1988)**

Latent Construct	F-Squared	Effect Size
Entrepreneurial Orientation	0.094	Small

**Table 3. Construct cross-validated redundancy**

Total	SSO	SSE	1-SSE/SSO
Firm performance	2,106.000	1,818.460	0.137



**Fig. 1. PLS-SEM bootstrapping model**

**3.4 Assessment of Variance Explained in the Endogenous Latent Variables**

The PLS-SEM structural model recommends using R-squared ( $R^2$ ), which is also called the coefficient of determination, as a value assessment criterion (Hair et al., 2012; Henseler et al., 2009). The  $R^2$  value represents the ratio of variation in the dependent variable(s) that could be explained by one or more independent variable(s) [29,30,31] suggested an  $R^2$  value of 0.10 as the minimum acceptable level. In addition, Chin [32] recommended that in PLS-SEM, an  $R^2$  value of 0.19 is considered weak, 0.33 as moderate, and 0.60 as substantial. The  $R^2$  value from the endogenous latent construct in this study is 0.218, which is moderate.

As such, this study’s model explains 21.8% of the total variance in business performance, suggesting that the exogenous latent constructs (entrepreneurial orientation) and their dimensions jointly explain 21.8% of the variance of the endogenous latent construct (business performance). Thus, following Falk and Miller [31] and Chin [32] this study’s endogenous latent construct (dependent variable) showed adequate levels of R-squared values, which were considered acceptable. Chin [32] noted that even a model with a low  $R^2$  can still yield excellent goodness of fit.

**3.5 Assessment of Effect Size ( $F^2$ )**

After assessing the  $R^2$ , according to Hair et al. [33] the next criterion to be assessed is effect size ( $F^2$ ). Effect size is the difference in  $R^2$  between the main effects when the particular exogenous construct is omitted from the model and when it is in the model. This is done purposefully to evaluate whether the omitted exogenous construct has a substantial impact on the endogenous variables [32,33].

**3.6 Predictive Relevance of the Model**

Another assessment of the structural model involves the model’s capacity to be predictive. In addition to assessments of  $R^2$  and the effect size of all the exogenous latent variables on the endogenous latent variable, researchers suggested evaluating the level of predictive relevance of the model,  $Q^2$  [34,35]. The value of  $Q^2$  shows how well the observed values have formed the model as well as its parameter estimations Chin, [32] Hair et al. [30] assumed that the model should be able to effectively predict each dependent latent variable indicator.

Predictive relevance ( $Q^2$ ), the last evaluation criterion, is evaluated using construct-cross verified redundancy. Hence,  $Q^2$  greater than zero denotes a model’s predictive relevance (Geisser,

1975). The  $Q^2$  for Firm Performance is 0.384 which is greater than zero, demonstrating the predictive usefulness of the study's model.

#### **4. DISCUSSION**

There are still certain information gaps, despite the recent increase in research linking entrepreneurial orientations with firm performance. This study looked at how these entrepreneurial orientation proxies related to a sample of women-owned family businesses operating in a risky and difficult environment in northern Nigeria. With the exception of innovativeness, which was unrelated to the performance of family-owned firms, the findings supported the hypotheses that all the other proxies of entrepreneurial orientation were positively connected to women-owned family firm performance.

The results of this study support and add to earlier studies in a variety of ways. The assumption that entrepreneurial orientations are positively associated with firm performance is backed by a lot of data. On the one hand, studies have shown that it has a favourable link with firm performance; thus, these new findings confirmed the conclusions of earlier research [36,37,38].

The significance of the notion of entrepreneurial abilities in predicting results in numerous problem-affected nations like Nigeria is another explanation for this finding. According to this research, entrepreneurs who can take risks despite problems, be aggressive, and exercise a level of autonomy in their decision-making will be able to survive, succeed, and remain dedicated in a challenging climate. The outcome gave unequivocal proof that a firm's performance depends on how entrepreneurially oriented an entrepreneur is. Performance improves as one becomes more innovative, autonomous, and aggressive in making business decisions. This finding is consistent with a large body of empirical research that has linked entrepreneurial orientations to better company success, either directly or indirectly.

To the best of our knowledge, no research has previously examined and experimentally verified the relationships between entrepreneurial orientation and women's family-owned firm performance in a banditry-prone region of north-western Nigeria. This is the first attempt to integrate these proxies into a single model and

assess how they relate to one another within such an area.

#### **4.1 Limitations and Directions for Future Study**

This study has several limitations. First, the nature of this study is cross-sectional, and no causal conclusions can be drawn from the current results. Future research should overcome this limitation by using a longitudinal research design. Second, because participants self-rated in the same measurement environment, future research should use multiple sources or numerous time points to collect data in an effort to confirm the current findings. In this study, we solely concentrated on four of the proxies of entrepreneurial orientations to predict business performance because of the nature of the setting. We discovered that these constructs were crucial in predicting the results of this investigation. Future research incorporating additional entrepreneurial orientation proxies to forecast family firm performance with supplementary variables would be beneficial.

#### **5. CONCLUSION**

This exploratory inquiry has provided new insight into firm success and the value of entrepreneurial orientations in the context of family businesses. Overall, we were able to present four direct links based on the analysis's findings. With the exception of one, each of these connections mattered. However, beyond the context in which the data were collected, this piece of work can only offer fragmentary insight. It is an uncommon article on factors influencing business performance in the setting of family firms, but the findings of our sample suggest that more research in this area is absolutely required given the differences between country cultures and environmental conditions. Family firm performance needs additional research to be relevant, which would widen the conclusions in this work.

#### **COMPETING INTERESTS**

Authors have declared that no competing interests exist.

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