

# EXAMINING THE MODERATING EFFECT OF ENTREPRENEURS' DEMOGRAPHIC CHARACTERISTICS ON STRATEGIC ENTREPRENEURIAL ORIENTATIONS AND COMPETITIVENESS OF SMEs

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## ABSTRACT

*The focus of this study was to examine the moderating effects of entrepreneurs' demographic characteristics on strategic entrepreneurial orientation and competitiveness of SMEs. The theoretical underpinning of the study was based on existing literature to reflect the moderating effects of entrepreneurs' demographic characteristics on strategic entrepreneurial orientation and competitiveness of SMEs. The study adopted quantitative approach with a descriptive research design to describe the moderating effects of entrepreneurs' demographic characteristics on the relationship between strategic entrepreneurial orientation and competitiveness of SMEs based on the objective of the study. Data was gathered from 159 owners/managers of micro, small and medium agro-based firms that were randomly selected and surveyed through the use of structured questionnaire. Hierarchical multiple regression was adopted in analysing the research instrument. The findings from the statistical analysis suggest that analysis, future oriented strategies, proactive initiatives, risk-taking attitudes, defensive strategies over their niche and ensuring integration of their various functional units are significant strategic entrepreneurial orientations that enhance SMEs competitiveness*

**Keywords:** Strategic Entrepreneurial Orientation, Entrepreneurs' Demographic Characteristics, Competitiveness, SMEs, Entrepreneurship Education in SMEs.

## INTRODUCTION

The importance of strategic entrepreneurial orientation to enhancing SMEs competitiveness has been established globally (Liu & Fu, 2011; Jeyakodeeswari & Jeyanithila, 2013). Despite this, the scenario in Nigeria's business economy, especially with respect to SMEs operating in the agro-based industry has shown that the industry is characterised by low competitiveness, under-utilization of resources and slow growth (Obinna, 2012; Omorogiwa,

Zivkovic & Ademoh, 2014; Babajide, Olokoyo & Taiwo, 2016). Arguably, the failure of these organisations has been traced to factors beyond lack of long-term financing, extending to entrepreneurs' demographic characteristics, such as, insufficient management experience and poor entrepreneurial capacity of the owners/managers of the firm (Sanusi, 2003). Studies such as Sukru, Mehmet and Mehmet (2015), Javalgi and Grossman (2016) have shown the importance of SMEs owners/managers demographic characteristics on entrepreneurial activities in more developed economies other than that of Nigeria. As such, demographic characteristics of SMEs owners/managers, especially in Nigeria's agro-based industry, has not been shown in existing literature, thus limiting empirical evidences about the moderating effect of such demographic characteristics on the relationship between strategic entrepreneurial orientation and competitiveness of SMEs. Therefore, the focus of this study was to examine the moderating effects of entrepreneurs' demographic characteristics on strategic entrepreneurial orientation and competitiveness of SMEs.

## LITERATURE REVIEW

### The Concept of Strategic Entrepreneurial Orientation

According to Madhoushi, Sadati & Delavari (2011) strategic entrepreneurial orientation can be considered as the processes, practices, philosophy, and decision-making activities that lead organizations to innovation. The use of strategic entrepreneurial orientation makes it possible to combine different scholarly views on entrepreneurship and to consider the subject as an entrepreneurial behaviour (Jeyakodeeswari & Jeyanithila, 2013). Strategic entrepreneurial orientation according to Lumpkin & Dess (1996) consists of five dimensions, namely, innovativeness, competitive aggressiveness, risk-taking propensity, autonomy, and proactiveness. Boohene, Marfo-Yiadom & Yeboah (2012) suggest that strategic entrepreneurial orientation is a key driving force for a free market economy, thereby having a major influence on the demand and supply factors of the economy. A covariant relationship exists between strategic entrepreneurial orientation and innovative performance (Madhoushi, Sadati & Delavari, 2011). Therefore, entrepreneurial firms are believed to be innovative in order to maintain a competitive position. Liu & Fu (2011) observed the varying relationships between strategic orientation and performance in existing studies. As such, they suggested that moderating and mediating effects based on entrepreneurs' characteristics could give more insights into the nature of relationships of strategic entrepreneurial orientations and performance. Furthermore, strategic entrepreneurial orientation involves the implementation of strategic directions, adoption of work rules and decisions that guide the activities of a firm in such a way as to establish behaviours that achieve continuity in optimal performance for the business (Okhomina, 2010; Liu & Fu, 2011; Jeyakodeeswari & Jeyanithila, 2013). Venkatraman (1989) typology of strategic entrepreneurial orientation has emerged among the most dominant frameworks of strategic entrepreneurial orientation. None the less, Venkatraman's typology has received minimal attention in the area of agro business industry and especially in the geographical scope of this study.

## **Moderating Effect of Entrepreneurs' Demographic Characteristics on Strategic Entrepreneurial Orientation and SMEs Competitiveness**

Entrepreneur's demographic characteristics include factors such as their age, gender, educational background and employment history. These factors are significant in determining the outcomes and competitiveness levels of entrepreneurial firms because they influence entrepreneurial motivations of aspiring entrepreneurs and their ability to seek new entrepreneurial opportunities (Javalgi & Grossman, 2016). Moreover, demographic characteristics of entrepreneurs such as gender, position in the organization and organizational type has been shown to be significant to entrepreneur's attitudinal orientation and their level of innovativeness (Sukru, Mehmet & Mehmet, 2015). Chowdhury (2005) argued that team size and age heterogeneity of entrepreneurial firms and their employees has a correlation relationship with team effectiveness and the overall effectiveness of the firm's entrepreneurial orientations. According to Roque, Vinícius & Shannon (2017), gender has a significant influence on entrepreneurs' behavioural orientations, such that tend to display higher levels of entrepreneurial behaviour. More so, entrepreneurs with higher degrees, such as specialized degrees and Masters' degrees, also proved to demonstrate higher entrepreneurial behavioural orientation that those that had lower educational degrees.

Based on these, the following set of hypotheses were proposed:

*H<sub>1-7</sub>: the effect of strategic entrepreneurial orientation (aggressiveness, analysis, futurity, proactiveness, riskiness, defensiveness and functional interconnectedness) on SMEs' competitiveness is stronger when the relationships are moderated by entrepreneurial characteristics.*

### **METHODOLOGY**

The research made use of the descriptive survey research design.

#### **Measures and Sampling**

Strategic entrepreneurial orientation items used in this study include: competitive aggressiveness, defensiveness, proactiveness, analysis, futurity, riskiness and functional interconnectedness (Venkatraman, 1989; Lumpkin & Dess, 1996; Abiodun & Ibidunni, 2014). Although, functional interconnectedness is an original idea emanating from this research, it is considered to be an appropriate determinant of firms' strategic entrepreneurial orientation because firms that possess an entrepreneurial drive and operate with strategic foresights have been noted to operate effectively by networking all the functional units and departments in the organisation (Ahmadi & O'Cass, 2017). The variables used to capture entrepreneurs' characteristics include, age, gender, work experience and educational qualification. The dependent variable, competitiveness of agro-based SMEs, was measured using new product development, business competitiveness, operational competitiveness and financial competitiveness (Wang, Chich-Jen & Mei-Ling, 2010). The research instrument was scaled using a 5-point likert scale.

A sample size of 159 small and medium agro-based firms were surveyed in Lagos and Ogun States. Samples were selected using the convenience sampling technique and the

purposive sampling. This approach was adopted because of respondents' unwillingness to supply information as required in the research instrument, therefore leading to selection of respondents who were willing to respond. A major strength of this sampling approach is the likelihood of obtaining unbiased responses from respondents since they willingly accepted the interview. However, sampling within the organization involved the use of stratified sampling approach as well as purposive sampling. In each of the sampled organization the top hierarchies form a stratum which was purposefully sampled to include key organization officers. Data used for this study was obtained through the administration of questionnaires to Managing Directors and Functional Managers of Agro-based SMEs in the study locations.

### Reliability and Validity of the Scale Items

The reliability of the research items was ensured using the internal consistency method while the validity of scale items was carried out using construct validity based on correlations that revealed convergence and discriminant validity among research scales. These tests were carried out using SPSS version 22. The Coefficient Alpha ( $\alpha$ ) or Cronbach Alpha is the most popularly used to measure internal consistency (Pallant, 2005). Table 1 below shows the reliability and validity results of the scale items.

	Mean	$\alpha$	1	2	3	4	5	6	7	8	9	10	11
<b>Aggressiveness</b>	3.9513	0.757	1										
<b>Analysis</b>	4.3166	0.635	0.402**	1									
<b>Futurity</b>	4.1682	0.733	0.488**	0.659**	1								
<b>Proactiveness</b>	3.9230	0.836	0.537**	0.346**	0.615**	1							
<b>Riskiness</b>	3.2214	0.627	-0.160*	-0.203*	-0.276**	-0.161*	1						
<b>Financial</b>	3.8538	0.822	0.199*	0.433**	0.377**	0.236**	-0.078	1					
<b>Organizational System</b>	2.8239	0.889	-0.177*	-0.410**	-0.254**	-0.050	0.385**	-0.155	1				
<b>New Product Development</b>	4.2311	0.673	0.427**	0.482**	0.559**	0.503**	-0.221**	0.285**	-0.275**	1			
<b>Business Performance</b>	4.1845	0.798	0.270**	0.561**	0.484**	0.332**	-0.117	0.558**	-0.381**	0.489**	1		
<b>Functional Interconnectedness</b>	2.9520	0.910	-0.108	-0.289**	-0.096	0.031	0.373**	-0.086	0.850**	-0.175*	-0.304**	1	
<b>Functional Interconnectedness Defensive</b>	4.2453	0.575	0.340**	0.538**	0.481**	0.369**	-0.206**	0.407**	-0.303**	0.422**	0.465**	-0.250**	1

\*\*Correlation is significant at the 0.01 level (2-tailed). \*Correlation is significant at the 0.05 level (2-tailed).

## ANALYSIS AND RESULTS

The respondents that made up the study consist of both the male and female gender. However the sample is more tilted toward the male which made up 95 (59.7%) of the sample and females 64 (40.3%) of the respondents. 52 respondents, that is 32.7% of the respondents are unmarried while 102 (64.2%) are married. Other categories such as divorced and the widowed were only 5 (3.1%). 42 respondents, that is 26.4% have less than 5 years working experience. 53 (33.3%) obtain between 5 to 10 years working experience, while 24 (15.1%) have experienced 11 to 15 years of working in the agricultural business. 40 (25.2%) have worked in the business for 16 years and above. In terms of age classification, four (4) age groups were utilized: under 25

years consists of 15 respondents (9.4%), 58 respondents (36.5%) fall between 26 to 35 years, 50 respondents (31.4%) range from 36 to 45 years and 36 respondents (22.6%) are 46 years and above. 117 respondents, that is 73.6% have a minimum of first degree while only 42 respondents (26.4%) have less than first degree. This reveals that apart from experience gathered on the job a large number of respondents attained reasonable level of education to respond to the questionnaire (Table 2)

**Table 2**  
**HIERARCHICAL MULTIPLE REGRESSION OF STRATEGIC ENTREPRENEURIAL ORIENTATION, ENTREPRENEURS' CHARACTERISTICS AND FIRM COMPETITIVENESS**

	NPDev		BUSCMPT		OPRCMPT		FINCMPT	
	M1	M2	M3	M4	M5	M6	M7	M8
<b>Entrepreneur's Characteristics</b>								
Gender	0.096*	-0.156**	0.093	-0.253***	0.208	-0.394***	-0.046	-0.422***
Work Experience	0.169	-0.031	0.117*	-0.147**	0.182**	-0.312***	0.096	-0.209***
Age	0.038*	-0.166***	0.05	-0.263***	0.018	-0.478***	-0.033	-0.368***
Edu Qual	0.024**	-0.127***	0.128**	-0.085	0.054	-0.335***	0.152**	-0.093
<b>SEO*EC</b>								
Aggressiveness*EntCharac		0.106		-0.138		0.042		-0.123
Analysis*EntCharac		0.157		0.795***		0.674**		0.902***
Futurity*EntCharac		0.368**		0.327		1.001***		0.380*
Proactiveness*EntCharac		0.332***		0.219		0.140		0.079
Riskiness*EntCharac		0.054		0.313**		0.084		0.135
Defensiveness*EntCharac		0.166		0.329**		0.904***		0.530***
FunctionalInterconn*EntC harac		-0.161***		-0.315***		0.093		-0.051
<b>Regression Effects</b>								
R2	0.166	0.443	0.113	0.441	0.094	0.611	0.049	0.285
$\Delta R^2$	-----	0.276	-----	0.328	-----	0.517	-----	0.236
F	7.670***	10.607***	4.904***	10.531***	3.982***	20.975***	1.973	5.315***
Df	4, 158	11, 147	4, 154	11, 147	4, 154	11, 147	4, 154	11, 147

\*p<0.1, \*\*p<0.05, \*\*\*p<0.01

Note: M1=Model 1, M2=Model 2, M3=Model 3, M4=Model 4, M5=Model 5, M6=Model 6, M7=Model 7, M8=Model 8

The Table shows hierarchical modelling results of the hypotheses set out for this study. In the new product development block, gender ( $\beta=0.096$ ,  $p<0.1$ ), age ( $\beta=0.038$ ,  $p<0.1$ ) and educational qualification ( $\beta=0.024$ ,  $p<0.05$ ) were found to be significant. Together, these factors have account for entrepreneurs' ability to develop new products ( $R^2=0.166$ ). The interacting effect of strategic entrepreneurial orientation and entrepreneurs' demographic characteristics reveal that futurity orientation ( $\beta=0.386$ ,  $p<0.05$ ), proactiveness ( $\beta=0.332$ ,  $p<0.01$ ) and functional interconnectedness ( $\beta=0.161$ ,  $p<0.01$ ) have significant influence on new product development ( $\Delta R^2=0.276$ ). For business competitiveness, work experience ( $\beta=0.117$ ,  $p<0.1$ ) and educational qualification ( $\beta=0.128$ ,  $p<0.05$ ) were significant. The interacting effects of entrepreneurs' characteristics and analysis orientation ( $\beta=0.795$ ,  $p<0.01$ ), riskiness ( $\beta=0.313$ ,

$p < 0.05$ ), defensiveness ( $\beta = 0.329$ ,  $p < 0.05$ ) and functional interconnectedness ( $\beta = 0.315$ ,  $p < 0.01$ ) with a combine strength ( $\Delta R^2 = 0.328$ ) significantly influences on SMEs business competitiveness. With respect to operational competitiveness, only work experience ( $\beta = 0.182$ ,  $p < 0.05$ ) was found to be statistically significant. However, at the level of interactions, analysis ( $\beta = 0.674$ ,  $p < 0.05$ ), futurity ( $\beta = 1.001$ ,  $p < 0.01$ ) and defensiveness ( $\beta = 0.904$ ,  $p < 0.01$ ) had significant effects on operational competitiveness with  $\Delta R^2 = 0.517$ . Finally, educational qualification was shown to be significant to financial competitiveness ( $\beta = 0.152$ ,  $p < 0.05$ ). Also, the moderating effect of entrepreneurs' characteristics on analysis ( $\beta = 0.902$ ,  $p < 0.01$ ), futurity ( $\beta = 0.380$ ,  $p < 0.1$ ), defensiveness ( $\beta = 0.530$ ,  $p < 0.01$ ) were found to be significant predictors of financial competitiveness ( $\Delta R^2 = 0.236$ ).

## DISCUSSION

The aim of this study was to examine the moderating effects of entrepreneurs' demographic characteristics on the relationship between strategic entrepreneurial orientation and competitiveness of SMEs. Using the empirical setting of agro-based SMEs in Nigeria, the study found that strategic entrepreneurial orientations are significant to achieving and enhancing competitiveness of SMEs. Specifically, strategic entrepreneurial orientations, such as analysis, future oriented strategies, proactive initiatives, risk-taking attitudes, defensiveness were found to be significant indicators of business, operational and financial competitiveness and new product development of the organisation. The findings from this study is consistent with existing studies such as Jeyakodeeswari & Jeyanithila (2013) and Ibidunni, Ogunnaike & Abiodun (2017). Moreover, entrepreneurs' characteristics, especially their gender, age, work experience and educational qualifications are significant to enhancing this relationship between strategic entrepreneurial orientation and SMEs competitiveness. Again, supported by existing studies, for example, Osibanjo, Abiodun & Adeniji (2013), Javalgi & Grossman (2016); Olokundun, Ibidunni, Peter, Amaihian, Moses & Iyiola (2017) and Roque, Vinícius & Shannon (2017).

## CONCLUSION

This research focused on investigating the moderating effect of entrepreneurs' characteristics on strategic entrepreneurial orientation and competitiveness of SMEs. Based on the findings of this study, the research concludes that there is a relationship between strategic entrepreneurial orientation and competitiveness of SMEs and that entrepreneur' demographic characteristics, specifically gender, age categorization, work experience and educational qualification are significant to moderating the relationship between strategic entrepreneurial orientation and competitiveness of SMEs. Consequently, the recommendation from this research is that SMEs operators should give attention to developing competencies in strategic entrepreneurial orientation such as, analysis, future oriented strategies, proactive initiatives, risk-taking attitudes, defensive strategies over their niche and ensuring integration of their various functional units. These efforts are significant to enhancing the firms' new product development efforts, business competitiveness, financial positions and operational competitiveness. Moreover, entrepreneurs should pay attention to industries that support their demographic characteristics, especially with respect to gender, age categorization, work experience and educational qualification.

## ACKNOWLEDGEMENT

Authors of this research work express sincere appreciation to the Management of Covenant University for giving full sponsorship to the publication of the research work in this journal.

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