



Empirical Assessment of Entrepreneurial Orientation and Start-Up Performance in Nigeria

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DOI: <https://doi.org/10.47772/IJRISS.2026.100801180>

Received: 13 September 2026; Accepted: 18 September 2026; Published: 26 September 2026

ABSTRACT

Several motivating factors have been attributed to starting a business and start-up performance. Likewise, many scholars have linked entrepreneurial orientation with business performance. However, little or nothing is known about how entrepreneurial orientation stimulates start-up performance using different performance indicators among selected faith-based organisations' trainees' start-ups. Thus, this study investigates the influence of entrepreneurial orientation on start-up performance indicators. Data were collected from six hundred and forty-three (643) graduates, and 620 copies of the questionnaire were found useful. Stratified and convenience sampling techniques were used to select the respondents who took part in the survey. Similarly, Smart Partial Least Squares was used for hypothesis testing as depicted in the research model. The results reveal that entrepreneurial orientation significantly influenced start-up performance (new product developments, perceived customer satisfaction, operational efficiency, productivity, and competitive positioning). This study contributes to the existing knowledge on entrepreneurship stimulation and start-ups in the faith-based organisation in Nigeria context. The study concludes that entrepreneurial orientation can be used as a platform that can be employed to improve start-up performance. Consequently, the study recommended that graduates of faith-based entrepreneurship programmes in Nigeria should not relent in their drive towards anticipating customers' needs for new product development, satisfaction, and operational efficiency.

Originality: This study contributes empirical evidence to literature by examining multiple start-ups' performance indicators such as new product development, perceived customer satisfaction, operational efficiency, productivity, and competitive positioning.

Keywords: competitive positioning, customer satisfaction, entrepreneurial orientation, new product development, productivity, start-ups.

INTRODUCTION

Over the years, unemployment has been a major economic challenge in Nigeria, and the effects of COVID-19 also compounded it. The World Bank Group (2018) earlier opined that if the trend of the increasingly high rate of unemployment in Nigeria is not urgently reversed, the consequences will be frequent crimes. To address this, successive Nigerian governments have had various intervention measures. In support of governments' moves and intentions to ensure economic viability and development of the nation, faith-based organisations over the years have flagged off many entrepreneurial programmes, promulgating training that are impactful for starting businesses. These businesses can only exist and solve the unemployment problem when they are performing well. Business performance is a critical part of research within the entrepreneurial orientation (EO) literature. Hence, Tresna and Raharja (2019) stated that EO is one factor that can improve a business's performance.

Therefore, stimulating people's entrepreneurial characteristics toward successful start-ups is key to reducing the high unemployment rate, because it is important for their emancipation and global economic sustainability. Entrepreneurial Stimulation (ES) is a practice that triggers and inspires an individual to exercise a greater level of determination to the accomplishment of goals. In other words, entrepreneurial stimulation denotes the drives within an entrepreneur that affect the bearing, passion, and determination of the entrepreneur's behaviour (Sinha,

2019). Panda et al. (2017) established that entrepreneurs are stimulated by a combination of "pull" and "push" factors. Among the pull and push factors is entrepreneurial orientation, and scholars like Adegbuyi et al. (2018) and Adesanya et al. (2018) have linked EO with business performance. However, only limited consideration has been dedicated to probing the series of performance targets and deliberations in the EO literature. Consequently, it makes it difficult to understand the predispositions and preconceptions of how firm performance is considered in EO studies. Furthermore, little is known about EO stimulating start-up performance using different performance indicators and from selected faith-based organisations' trainees' start-ups. Thus, this study investigates the influence of EO on start-up performance indicators. The Schematic Model of the Study is indicated in Figure 1.

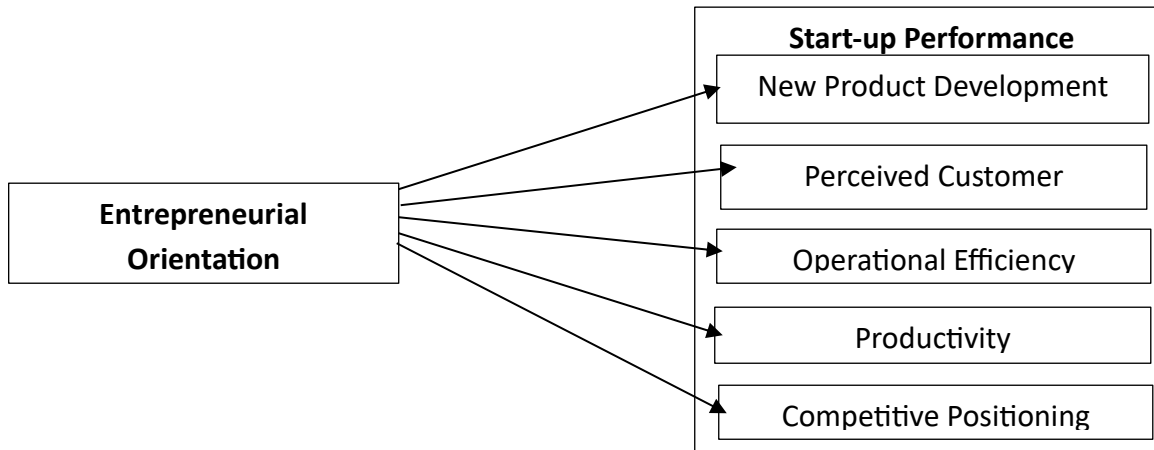


Figure 1: Schematic Model of the Study

This study conceptualises entrepreneurial orientation (EO) at the organisational level, with the start-up as the unit of analysis. EO refers to the strategic posture of a start-up in identifying and exploiting opportunities, responding to market changes, innovating, taking calculated risks, and acting proactively. It is operationalised through innovativeness, proactiveness, and risk-taking, reflecting the start-up's approach to pursuing opportunities and responding to competitive conditions.

Start-up performance represents the organisational outcome of EO and refers to the extent to which a start-up achieves its business objectives, reflected in indicators such as new product development, perceived customer satisfaction, operational efficiency, productivity, and competitive positioning.

Thus, the study examines entrepreneurial orientation as the explanatory variable and start-up performance as the outcome variable, focusing on whether the entrepreneurial posture of Nigerian start-ups is associated with their performance.

LITERATURE REVIEW

Entrepreneurial Orientation

Entrepreneurial Orientation (EO) is a strategic orientation involving processes, practices, and managerial approaches that guide entrepreneurial decision-making, opportunity exploitation, and competitive advantage (Lomberg et al., 2017; Karami et al., 2020). EO has become widely used in empirical research examining entrepreneurial attitudes and firm performance (Buli, 2017; Isichei et al., 2020; Onwe et al., 2020). It is commonly associated with innovativeness, proactiveness, risk-taking, competitive aggressiveness, and autonomy, which contribute to business success and organisational growth (Hayat et al., 2019; Al Issa, 2020; Otache, 2019; Diabate et al., 2019).

EO is one of the most researched concepts in entrepreneurship, with innovativeness, proactiveness, and risk-taking widely recognised as its core dimensions (Almeida et al., 2019; Li et al., 2021). Previous studies have established its relationship with, and predictive influence on, firm performance (Ali et al., 2020; Khan et al., 2020; Ngoma et al., 2017). From a strategic management perspective, EO enables firms to respond effectively

to changing business environments and pursue organisational goals. Hayat et al. (2019) identified five dimensions: innovativeness, risk-taking, proactiveness, competitive aggressiveness, and autonomy, while Anlesinya et al. (2015), Kruja (2020), and Musahdonkoh et al. (2021) emphasised three core dimensions: innovativeness, risk-taking, and proactiveness. However, integrating the dimensions may produce stronger effects on business performance (Adesanya et al., 2018).

Start-Up Performance

Start-up performance is essential for assessing business growth, profitability, survival, and long-term success. Although financial outcomes remain important, business performance can also be assessed through economic, social, and environmental indicators consistent with the triple bottom line perspective (Boyer et al., 2008). Performance is a major variable in entrepreneurship research because it reflects an entrepreneur's ability to achieve organisational objectives, including revenue growth, product quality, financial results, survival, and market share (Ayoade et al., 2018; Falola et al., 2018).

Key Performance Indicators (KPIs) provide measurable indicators of progress and guide effective business improvement. However, start-ups often have limited data and operate in environments where conventional performance benchmarks may not be appropriate (Signer, 2017). Therefore, start-up KPIs need to be adapted to the firm's stage, context, and objectives. Accordingly, this study measures start-up performance using new product development, customer satisfaction, operational efficiency, productivity, and competitive positioning (Kyndt & Baert, 2015; Signer, 2017; Zarefard & Cho, 2018).

Entrepreneurial Orientation and New Product Development

New Product Development (NPD) is the process of converting a market opportunity into a product or service ready for sale. Successful NPD requires understanding customer needs, market conditions, competition, and the quality, cost, and time factors that influence consumer preferences (Kahn, 2012). Information gathering and evaluation can improve NPD by reducing risks and resources committed to unsuccessful products, although the process varies according to industry and firm-specific needs (Bhuiyan, 2011).

Entrepreneurial Orientation (EO), particularly innovativeness, risk-taking, competitiveness, and teamwork, is relevant to successful NPD. Mu et al. (2017) found positive relationships between market and entrepreneurial orientations and NPD performance, while Ferreras-Méndez et al. (2021) found that EO contributes to business model innovation and NPD performance, with business model innovation having a limited mediating effect. Therefore, this study examines the relationship between EO and NPD among FBO trainees' start-ups.

H1: Entrepreneurial Orientation (EO) does not significantly enhance New Product Development (NPD).

Entrepreneurial Orientation and Perceived Customer Satisfaction

Customer satisfaction reflects the extent to which a customer's expectations correspond with their perception of the product or service received. ISO 10004 views satisfaction as a customer's judgment of this experience, making customer expectations, perceived value, product/service quality, and fulfilment of needs important considerations.

Chokesikarin (2014) found a significant relationship between EO and business success, while Cuevas-Vargas et al. (2019) established that EO significantly influences business performance both directly and indirectly through customer satisfaction. These findings suggest that entrepreneurial practices can strengthen customer-oriented decision-making and business outcomes. However, this study specifically examines the relationship between EO and perceived customer satisfaction among FBO trainees' start-ups.

H2: EO does not positively influence Perceived Customer Satisfaction.

Entrepreneurial Orientation and Operational Efficiency

Operational efficiency refers to the effective utilisation of organisational resources to maximise output while

minimising waste, cost, time, and resource consumption (Doyle & Green, 1994). It encompasses activities such as production, distribution, inventory management, resource transformation, and service delivery, with efficiency reflected in the relationship between actual output and resources used.

Shen et al. (2020) found that EO dimensions contribute to firm performance, while efficiency strategies and innovativeness support performance growth in manufacturing firms. Similarly, Gupta and Wales (2017) identified EO as relevant to organisational performance but noted limited understanding of its effects on operational performance. Consequently, this study examines whether EO contributes to operational efficiency in start-ups.

H3: Entrepreneurial Orientation does not significantly enhance Operational Efficiency.

Entrepreneurial Orientation and Productivity

Productivity refers to the quantity of output produced from given inputs and is commonly used to assess the efficiency and performance of individuals, teams, and organisations. It can be measured as the ratio of total output to the inputs used in production, with higher output relative to input indicating greater productivity.

Buli (2017) found that integrating entrepreneurial and market orientations into SME operations improves business performance. Similarly, Masa'deh et al. (2018) established a positive relationship between market, technology, and entrepreneurial orientations and organisational performance in the Jordanian pharmaceutical sector. These findings suggest a potential relationship between EO and productivity, which this study investigates.

H4: Entrepreneurial Orientation does not significantly influence Productivity.

Entrepreneurial Orientation and Competitive Positioning

In competitive markets, firms need to create superior or distinctive value for customers. Competitive positioning involves identifying target markets, understanding customer preferences, and differentiating a firm's offerings from competitors (Asan & Kadaifci, 2020). It has become increasingly important as market competition intensifies (Lee et al., 2020). Effective positioning requires assessing the target market and identifying product attributes that are important to customers (Kim et al., 2015).

Competitive positioning may be based on price, quality, service, customisation, benefit differentiation, or innovation (Hooley & Greenley, 2007; Liu & Atuahene-Gima, 2018). However, pursuing multiple positioning dimensions may create strategic conflicts, such as attempting to combine high quality with very low prices (Iyer et al., 2019; Hooley et al., 2006). Effective positioning should therefore reflect the firm's resources, capabilities, and ability to deliver valued and distinctive benefits to customers. Adokou and Kyere-Diabour (2017) further emphasised that effective differentiation should be significant, distinctive, difficult to imitate, communicable, valuable to customers, and profitable.

Zeebaree and Siron (2017) found that EO significantly influences competitive advantage, suggesting that the differentiation associated with EO may strengthen competitive positioning. Accordingly, this study examines the relationship between EO and competitive positioning.

H5: Entrepreneurial Orientation does not significantly influence Competitive Positioning.

METHODOLOGY

This study examines the influence of entrepreneurial orientation on start-up performance in selected faith-based organisations (FBOs). The study used a descriptive survey because the design concentrates on the phenomenon of interest and provides reliable responses to questions measuring the variables under consideration. The graduate students of the entrepreneurship programmes in three selected faith-based organisations in Lagos State, Nigeria participated in the survey. The total population of the graduate students was 19, 083. For sample size determination, Gill et al. (2010) table charts were used, as cited in (Taherdoost, 2018) at a 95% confidence level

(0.05 margin of error). Therefore, six hundred and forty-three participated in the survey. Meanwhile, the study considered the relative weight of the population of the graduates of each faith-based organisation in determining the number of copies of the questionnaire that will be distributed in each faith-based organisation. The three organisations selected were registered members of the Christian Association of Nigeria in Lagos. They have been carrying out entrepreneurship activities (empowerment programmes) for over eight years consistently. Multiple sampling techniques were employed: purposive, stratified random, and convenience sampling techniques. **Purposive sampling** was used to select FBOs that met specific criteria, including headquarters in Lagos, at least eight years of entrepreneurship training experience, and established training structures with regular and consistent programmes. **Stratified random sampling** was then used to ensure adequate representation of relevant subgroups within the selected FBOs and minimise sampling error (Etikan & Bala, 2017). **Convenience sampling** was applied in administering questionnaires through physical and Google survey formats, particularly during the COVID-19 period when some organisations operated online. This enabled participation by respondents who were available and willing to respond, while being accessible, time-saving, and cost-effective (Scholtz, 2021).

A survey questionnaire was used to obtain desired information from the graduates of the entrepreneurship programmes of selected FBOs in Lagos State to assess their start-ups' performance. The questionnaire allows for quantification and statistical data analysis of the population information. It allowed respondents some flexibility –to complete the questionnaire at their own pace and time. It is also appropriate for a large sample such as this study. The questionnaire was structured using the 5-point Likert scale ranging from “strongly agree” to “strongly disagree. Likert surveys are quick and efficient, and it is mostly used in business management. SPSS 25.0 was used for data coding and preliminary analysis, while SmartPLS 3.0 was used to estimate the PLS-SEM model and bootstrap the structural relationships. The bootstrap procedure generated the reported path coefficients, standard errors, t-statistics, and p-values used for hypothesis testing. Furthermore, the validity and reliability of the instrument were assessed through basic statistical assumptions, as presented in Table 1.

Table 1: Construct Validity and Reliability

	Loading	VIP	t-statistics	P Value	AVE	Composite Reliability	Cronbach's Alpha
Constructs	≥ 0.6	<3.0	>1.96	<.05	≥0.5	≥ 0.8	> 0.7
Entrepreneurial Orientation (EO)					0.511	0.807	0.782
EOq1	0.722	1.325	11.691	0.000			
EOq2	0.702	1.246	11.543	0.000			
EOq3	0.741	1.315	13.134	0.000			
EOq4	0.693	1.336	10.300	0.000			
New Product Development (NPD)					0.606	0.821	0.776
NPDq1	0.794	1.308	17.639	0.000			
NPDq2	0.713	1.312	9.224	0.000			
NPDq3	0.825	1.262	15.270	0.000			
Perceived Customer Satisfaction (PCS)					0.573	0.798	0.732
PCSq1	0.707	1.510	14.325	0.000			
PCSq2	0.609	1.187	5.692	0.000			
PCSq3	0.835	1.326	21.381	0.000			
Operational Efficiency (OE)					0.576	0.803	0.736
OEq1	0.776	1.262	12.060	0.000			
OEq2	0.754	1.196	12.056	0.000			
OEq3	0.747	1.324	9.571	0.000			

Productivity (Pro)					0.627	0.833	0.798
Proq1	0.850	1.639	21.237	0.000			
Proq2	0.842	1.606	21.793	0.000			
Proq3	0.671	2.185	7.005	0.000			
Competitive Positioning (CP)					0.523	0.767	0.749
CPq1	0.721	1.197	7.851	0.000			
CPq2	0.712	1.208	5.945	0.000			
CPq3	0.736	1.094	9.273	0.000			

Table 1 indicates that the measurement model meets the reported reliability and convergent validity criteria. All item loadings are above 0.60, while the AVE values range from 0.511 to 0.627, exceeding the 0.50 threshold. Composite reliability values range from 0.767 to 0.833, and Cronbach's alpha values range from 0.732 to 0.798, indicating acceptable internal consistency based on the stated criteria. The reported VIF values range from 1.094 to 2.185, all below the criterion of 3.0. This indicates that the model does not exhibit problematic collinearity among the indicators based on the stated threshold (Hair et al., 2017). This suggests that collinearity and multicollinearity assumptions were met, as depicted in Table 1. The results also provide evidence of convergent validity because the indicator loadings exceed 0.60 and the AVE values exceed 0.50 (Falola et al., 2020).

RESULTS AND DISCUSSION

The study examined the statistical relationships between Entrepreneurial Orientation (EO) and five dimensions of start-up performance: New Product Development (NPD), Perceived Customer Satisfaction (PCS), Operational Efficiency (OE), Productivity (Pro), and Competitive Positioning (CP) among FBO trainees' start-ups in three selected faith-based organisations in Nigeria. The PLS-SEM analysis used standardised path coefficients (β), R^2 , standard errors, t-statistics, and p-values to assess the estimated relationships.

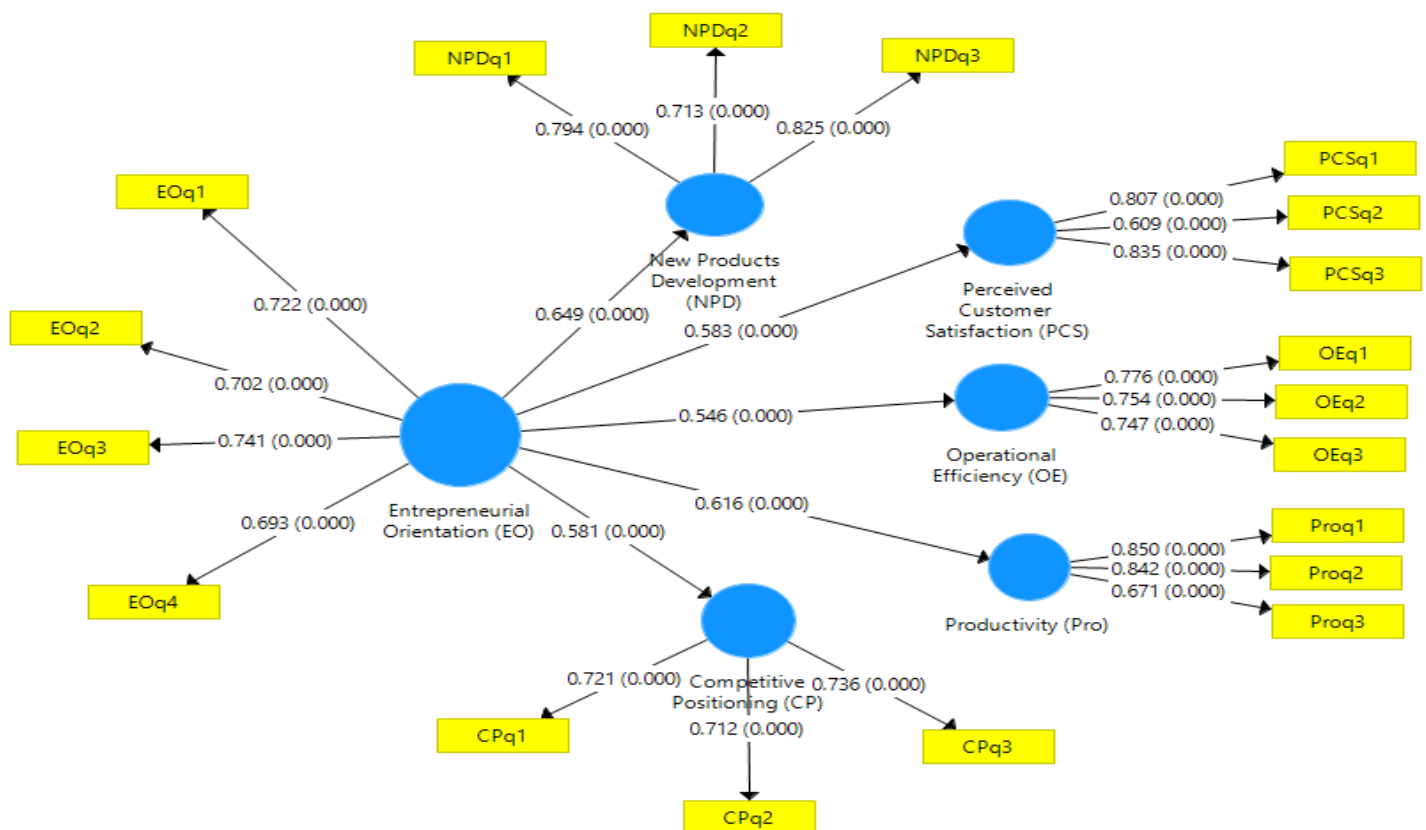


Figure 2: PLS Bootstrapping Model with β and P values of entrepreneurial orientation and start-up performance (new product development, perceived customer satisfaction, operational efficiency, productivity, and competitive positioning)

Table 2 Path Coefficients for Entrepreneurial Orientation (EO) and Start-Up Performance

	Path Coefficient	R-Square	Std. Dev	T-statistics	P-value
EO → NPD	0.649	0.421	0.056	11.524	0.000
EO → PCS	0.583	0.340	0.068	8.5233	0.000
EO → OE	0.546	0.298	0.088	6.233	0.000
EO → Pro	0.616	0.379	0.061	10.161	0.000
EO → CP	0.581	0.338	0.081	7.177	0.000

Table 2 presents the structural model results. All five estimated path coefficients are positive and statistically significant at the 5% level, with t-statistics exceeding 1.96 and $p < .001$. These results indicate statistically significant positive associations between EO and each of the five dimensions of start-up performance.

EO and NPD recorded a positive and statistically significant path coefficient ($\beta = 0.649$, $R^2 = 0.421$, $t = 11.524$, $p < .001$). The R^2 indicates that EO accounts for approximately 42.1% of the variance in NPD in the model. Thus, the result provides statistical support for a positive relationship between EO and NPD.

Similarly, EO was positively associated with PCS ($\beta = 0.583$, $R^2 = 0.340$, $t = 8.523$, $p < .001$). The R^2 value indicates that approximately 34.0% of the variance in perceived customer satisfaction is explained by EO in the estimated model.

For OE, the results show a positive and statistically significant association with EO ($\beta = 0.546$, $R^2 = 0.298$, $t = 6.233$, $p < .001$). The R^2 value indicates that EO explains approximately 29.8% of the variance in operational efficiency.

The relationship between EO and productivity was also positive and statistically significant ($\beta = 0.616$, $R^2 = 0.379$, $t = 10.161$, $p < .001$). The R^2 indicates that approximately 37.9% of the variance in productivity is accounted for by EO in the estimated model.

Finally, EO was positively associated with CP ($\beta = 0.581$, $R^2 = 0.338$, $t = 7.177$, $p < .001$). Thus, approximately 33.8% of the variance in competitive positioning is explained by EO. The reported R^2 of 0.338 is consistent with the path coefficient.

Overall, the estimated relationships indicate that EO is positively and significantly associated with all five dimensions of start-up performance considered in the study. Based on the magnitude of the reported R^2 values, EO explains the largest proportion of variance in NPD (42.1%), followed by productivity (37.9%), PCS (34.0%), CP (33.8%), and OE (29.8%).

Table 3: Discriminant Validity

	BIG	CP	NPD	OP	PCS	Pro
BIG	0.723					
CP	0.581	0.715				
NPD	0.556	0.649	0.778			
OP	0.477	0.546	0.649	0.759		
PCS	0.542	0.583	0.630	0.674	0.757	
Pro	0.520	0.616	0.682	0.654	0.698	0.792

The study examined how entrepreneurial orientation influenced start-up performance (new product development, perceived customer satisfaction, operational efficiency, productivity, and competitive positioning). The findings revealed that entrepreneurial orientation influences start-up performance. This is portrayed in the direct relationship that exists between entrepreneurial orientation and start-up performance, with path coefficients which accounted for 0.649, 0.583, 0.546, 0.616, and 0.581 for new product development, perceived customer

satisfaction, operational efficiency, productivity, and competitive positioning, respectively. Meanwhile, the T-statistics of all the detected variables are above the critical value of 1.96 at the confidence level of 95.

Similarly, new product development had the highest R^2 value among the five endogenous constructs, indicating that EO accounted for the largest proportion of explained variance in NPD within the estimated model. This study posits that anticipation of customers' needs for customer satisfaction, taking a calculated risk in business, improved market position, bold decisions to exploit opportunities, as well as the assessment of potential customer needs, are some of the entrepreneurial orientations that influence new product development, perceived customer satisfaction, operational efficiency, productivity, and competitive positioning.

The findings are broadly consistent with previous studies that associate entrepreneurial orientation with business performance. For example, Arshad et al. (2014) identified innovativeness, proactiveness, risk-taking, competitive aggressiveness, and autonomy as important entrepreneurial characteristics associated with business success. Similarly, the importance of appropriate resource allocation, efficient processes, and effective use of people and technology has been emphasised in relation to start-up performance (Hosain et al., 2019; Lotto, 2019; Pancheva, 2019). Other studies have also linked entrepreneurial orientation and related strategic practices with business performance (Bulsara et al., 2014; Olarewaju & Obalade, 2015; Olokundun et al., 2017; Pancheva, 2019). The results therefore provide empirical support for the proposed relationships between EO and the five dimensions of start-up performance.

Since all five relationships have positive path coefficients, t-statistics greater than 1.96, and p-values below .05, the null hypotheses are rejected at the 5% significance level.

- i. **H1:** EO does not significantly enhance NPD — **Rejected.** The results show a statistically significant positive association between EO and NPD ($\beta = 0.649$, $t = 11.524$, $p < .001$).
- ii. **H2:** EO does not positively influence PCS — **Rejected.** The results indicate a statistically significant positive association between EO and PCS ($\beta = 0.583$, $t = 8.523$, $p < .001$).
- iii. **H3:** EO does not significantly enhance OE — **Rejected.** The results indicate a statistically significant positive association between EO and OE ($\beta = 0.546$, $t = 6.233$, $p < .001$).
- iv. **H4:** EO does not significantly influence productivity — **Rejected.** The results indicate a statistically significant positive association between EO and productivity ($\beta = 0.616$, $t = 10.161$, $p < .001$).
- v. **H5:** EO does not significantly influence CP — **Rejected.** The results indicate a statistically significant positive association between EO and CP ($\beta = 0.581$, $t = 7.177$, $p < .001$).

CONCLUSION

In conclusion, the study emphasises that entrepreneurial orientation can be used as a platform that can be employed for improved start-up performance (new product development, perceived customer satisfaction, operational efficiency, productivity, and competitive positioning). New product development was also found to be the most predicted by entrepreneurial orientation. This is an indication that new product development is critical in business production. Therefore, the anticipation of customers' needs for satisfaction, and the ability to take a calculated risk for an improved market position by making bold decisions to assess potential customer needs to exploit opportunities, could influence the operational efficiency of start-up programmes. In addition, a well-established structure for an improved production method can boost new product development or improved products.

The study recommended that graduates of faith-based entrepreneurship programmes in Nigeria and similar clime should not relent in their drive towards anticipating customers' needs for new product development, satisfaction, and operational efficiency. Also, they should be conscious of taking a calculated risk for improved market position and exploring business opportunities to improve the operational efficiency of start-up programmes that meet customers' needs. They should be creative to improve operational efficiency and productivity.

List of Abbreviations

AVE	Average Variance Extracted
BMI	Business Model Innovation
CS	Customer Satisfaction
EFS	Efficiency/Flexibility Strategy
EO	Entrepreneurial Orientation
FBOs	Faith-Based Organizations
ISO	International Organisation for Standardisation
KPI	Key performance indicators
NPD	New product development
PLS	Partial Least Squares
VIF	Variance Inflation Factor

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