ENTREPRENEURIAL ORIENTATION: A CATALYST FOR COMPETITIVENESS AMONG AGRO-PROCESSING SMALL AND MEDIUM ENTERPRISES (SMEs) IN KOGI STATE NIGERIA

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Abstract

This study examined the effect of entrepreneurial orientation on the competitiveness of agro-processing small and medium enterprises (SMEs) in Kogi State. Specifically, the study investigated the influence of innovation, proactiveness, risk-taking, autonomy, and competitive aggressiveness on competitiveness. A quantitative cross-sectional survey design was adopted, and data were collected from 184 owners and managers of agro-processing SMEs using a structured questionnaire. The data were analyzed using IBM SPSS Statistics with the aid of descriptive statistics and multiple regression analysis. The findings revealed that entrepreneurial orientation dimensions jointly have a significant effect on competitiveness ($R^2 = 0.610$, $p < 0.05$), explaining 61.0% of the variation in competitiveness. Specifically, proactiveness, autonomy, and competitive aggressiveness were found to have significant positive effects on competitiveness, while innovation and risk-taking had no statistically significant effects. The study concludes that entrepreneurial orientation is a critical determinant of competitiveness among agro-processing SMEs, although the impact varies across its dimensions. The study recommends that SME owners and managers should strengthen proactive strategies, enhance competitive aggressiveness, and promote autonomy in decision-making to improve competitiveness. The study also suggests that policymakers and stakeholders should design support mechanisms that encourage entrepreneurial strategic behavior among agro-processing SMEs.

Keywords: Entrepreneurial Orientation, Competitiveness, Agro-processing SMEs, Proactiveness, Competitive Aggressiveness.

1.0 Introduction

Agro-processing small and medium enterprises (SMEs) are critical drivers of economic development, particularly in developing economies where agriculture constitutes a significant portion of GDP and employment. These firms add value to primary agricultural products, reduce post-harvest losses, create rural jobs, and expand market access for primary producers, thereby strengthening overall food system performance (Eze et al., 2022). However, they frequently encounter structural challenges such as inconsistent supply chains, limited access to finance and technology, weak infrastructural support, and intense competitive pressures, which constrain their ability to sustain growth and maintain market competitiveness (Kiyabo & Isaga, 2020).

In strategic management and entrepreneurship research, entrepreneurial orientation (EO) has been identified as a key firm-level capability that enhances competitive advantage and performance outcomes. EO encompasses a firm's strategic posture toward innovativeness, proactiveness, and risk-taking dimensions that reflect a firm's willingness to engage in creative solutions, anticipate future market shifts, and commit resources despite uncertainty (Lumpkin & Dess, 1996; Miller, 1983). Firms with strong EO are better positioned to introduce new products and processes, respond flexibly to evolving customer demands, and compete effectively in dynamic market environments (Cools & Van den Broeck, 2007). Competitive

advantage has also been identified as a mechanism through which EO translates into superior performance outcomes, highlighting the strategic value of EO in resource-constrained environments such as many African SMEs (Kiyabo & Isaga, 2020).

Despite this broader literature, empirical evidence on how EO affects the competitiveness specifically of agro-processing SMEs remains limited, especially in developing economies. Few studies have examined how EO dimensions influence the ability of agro-processing firms to differentiate themselves, access new markets, and sustain a competitive edge under structural and market constraints (Eze et al., 2022). This research gap underscores the need to investigate the influence of EO on the competitiveness of agro-processing SMEs to inform entrepreneurship strategies, policy interventions, and sustainable agribusiness development.

Despite the increasing recognition of agro-processing SMEs as pivotal actors in strengthening agricultural value chains, enhancing rural industrialization, and contributing to broader economic transformation in developing economies, their competitiveness remains persistently fragile. These enterprises operate within structurally constrained environments characterized by input supply volatility, limited technological upgrading, weak institutional support, and heightened exposure to both domestic and international competitive pressures. Consequently, many agro-processing SMEs demonstrate low levels of product differentiation, inadequate market responsiveness, and constrained capacity to scale, ultimately undermining their potential to contribute meaningfully to sustainable economic development.

Within the strategic entrepreneurship discourse, entrepreneurial orientation (EO)—conceptualized through innovativeness, proactiveness, and risk-taking—has been theorized as a foundational strategic posture that enhances firm competitiveness. However, empirical evidence on EO's influence remains fragmented and largely concentrated in non-agricultural sectors. The distinct operational realities of agro-processing SMEs, including seasonality, perishability, infrastructural deficits, and exposure to commodity price fluctuations, suggest that the mechanisms through which EO translates into competitive advantage may differ substantively from those in other sectors.

Furthermore, existing studies have disproportionately emphasized EO's relationship with firm performance, with limited attention to competitiveness as a multidimensional construct encompassing market positioning, adaptive capability, cost efficiency, and value-adding innovation. This narrow focus has created a conceptual and empirical gap, particularly in developing-country contexts where institutional voids amplify the importance of strategic entrepreneurial behavior. As a result, policymakers and SME owners lack contextually grounded evidence on how EO can be strategically leveraged to enhance competitiveness in agro-processing value chains.

Therefore, there is a compelling need for rigorous empirical investigation into the specific pathways through which entrepreneurial orientation shapes the competitiveness of agro-processing SMEs. Addressing this knowledge gap is crucial for advancing theoretical perspectives in strategic entrepreneurship and for informing policy and practice aimed at strengthening the resilience and competitive positioning of agro-processing enterprises in emerging economies.

The broad objective of this study is to examine the influence of entrepreneurial orientation on the competitiveness of agro-processing small and medium enterprises (SMEs).

Specifically, the study seeks to determine the influence of innovativeness on the competitiveness of agro-processing SMEs; examine the influence of proactiveness on the competitiveness of agro-processing SMEs; assess the influence of risk-taking on the competitiveness of agro-processing SMEs; examine the influence of autonomy on the competitiveness of agro-processing SMEs; analyze the effect of competitive aggressiveness on the competitiveness of agro-processing SMEs.

To achieve these objectives, the study seeks to answer the following questions:

i. To what extent does innovativeness influence the competitiveness of agro-processing SMEs?
ii. How does proactiveness affect the competitiveness of agro-processing SMEs?
iii. What is the influence of risk-taking on the competitiveness of agro-processing SMEs?
iv. To what extent does autonomy enhance the competitiveness of agro-processing SMEs?
v. How does competitive aggressiveness enhance the competitiveness of agro-processing SMEs?

The following hypotheses in their null forms were tested:

$H0_1$: Innovativeness has no significant influence on the competitiveness of agro-processing SMEs.

$H0_2$: Proactiveness has no significant influence on the competitiveness of agro-processing SMEs.

$H0_3$: Risk-taking has no significant influence on the competitiveness of agro-processing SMEs.

$H0_4$: Autonomy has no significant effect on competitiveness of agro-processing SMEs.
$H0_5$: Competitive aggressiveness has no significant effect on competitiveness of agro-processing SMEs.

2.0 Review of Related Literature

Concept of Agro-Processing SMEs and Competitiveness

Agro-processing SMEs constitute a critical segment of the agribusiness value chain, transforming primary agricultural outputs into higher-value products, thereby enhancing shelf life, marketability, and income generation. In developing economies, these enterprises are central to rural industrialization and employment creation. However, their ability to remain competitive is often constrained by structural inefficiencies, including limited access to modern processing technologies, weak infrastructure, and fragmented market systems (Kiyabo & Isaga, 2020).

Competitiveness in the SME context is a multidimensional construct encompassing a firm's ability to achieve superior market positioning, sustain productivity, innovate, and respond effectively to environmental changes (Porter, 1990). For agro-processing SMEs, competitiveness extends beyond cost efficiency to include value addition, product quality, supply chain integration, and adaptability to market dynamics. Given the volatility

inherent in agricultural systems, competitiveness also reflects resilience and the capacity to manage uncertainty.

Entrepreneurial Orientation: Concept and Dimensions

Entrepreneurial Orientation (EO) is a foundational construct in strategic entrepreneurship, referring to the processes, managerial philosophies, and decision-making styles that guide a firm's entrepreneurial behavior. While early conceptualizations by Miller (1983) and Covin and Slevin (1991) emphasized a three-dimensional structure innovativeness, proactiveness, and risk-taking Lumpkin and Dess (1996) extended this framework to a five-dimensional perspective, adding autonomy and competitive aggressiveness. These dimensions collectively capture the heterogeneity of entrepreneurial strategic postures across different organizational and environmental contexts.

Innovativeness

Innovativeness reflects a firm's propensity to engage in creativity, experimentation, and technological adoption that led to the development of new products, services, or processes (Lumpkin & Dess, 1996; Miller, 1983). It is rooted in a culture that supports the pursuit of novel ideas and continuous improvement. Within SMEs, innovativeness is critical for building differentiation and enhancing value creation, especially in dynamic markets.

Proactiveness

Proactiveness embodies a forward-looking orientation characterized by opportunity recognition, market anticipation, and first-mover initiatives. Proactive firms tend to lead rather than follow industry trends, positioning themselves advantageously in emerging market niches (Lumpkin & Dess, 1996). This dimension is especially vital in environments where technological change and customer preferences evolve rapidly.

Risk-Taking

Risk-taking refers to a firm's willingness to commit significant resources to uncertain ventures, pursue opportunities with unpredictable outcomes, and undertake bold strategic actions (Covin & Slevin, 1991). It involves tolerating ambiguity and making decisions under conditions of imperfect information. While risk-taking can generate high returns, it is also shaped by resource constraints and environmental volatility, which are particularly salient for SMEs in developing economies.

Autonomy

Autonomy is the degree to which individuals or teams are empowered to bring ideas to fruition independently (Lumpkin & Dess, 1996). It involves granting decision-making discretion and freedom to initiate and champion innovative projects. Autonomy fosters initiative, creativity, and ownership of entrepreneurial processes within the organization. In SMEs, where hierarchical structures are often less rigid, autonomy can enhance responsiveness and accelerate innovation.

Competitive Aggressiveness

Competitive aggressiveness reflects a firm's propensity to challenge competitors directly and intensely in order to outperform them. It involves assertive responses to market competition, including aggressive pricing strategies, rapid counterattacks, or bold market entries (Lumpkin & Dess, 1996). This dimension is particularly relevant in industries with high rivalry, where firms must defend market share and seize competitive opportunities.

Entrepreneurial Orientation and Firm Competitiveness

A growing body of empirical literature suggests that EO positively influences firm competitiveness by fostering innovation, strategic flexibility, and market responsiveness. Firms with strong EO are more likely to introduce differentiated products, identify emerging market opportunities, and respond swiftly to competitive pressures (Wiklund & Shepherd, 2005).

Innovativeness enhances competitiveness through product development and process improvement, while proactiveness enables firms to capture first-mover advantages. Risk-taking, although context-dependent, facilitates strategic investments that can yield long-term competitive benefits. Furthermore, EO has been linked to the development of competitive advantage, which mediates its relationship with firm performance (Kiyabo & Isaga, 2020).

However, the EO–competitiveness relationship is not universally consistent. Some studies suggest that the effectiveness of EO is contingent on environmental factors such as market dynamism, resource availability, and institutional support systems. This indicates the need for context-specific investigations, particularly in sectors with unique operational characteristics such as agro-processing.

Theoretical Framework

This study is anchored primarily on the Resource-Based View (RBV) Theory developed by Barney (1991). The theory is considered most appropriate because it explains how entrepreneurial orientation dimensions: innovativeness, proactiveness, risk-taking, autonomy, and competitive aggressiveness function as strategic organizational capabilities that enhance competitiveness. The theory suggests that firms possessing unique entrepreneurial capabilities are more likely to achieve superior market positions and sustain competitive advantage than firms lacking such capabilities (Barney, 1991).

Although Dynamic Capabilities Theory (Teece et al., 1997) and Schumpeter's Innovation Theory (Schumpeter, 1934) provide complementary insights regarding adaptation and innovation, RBV offers the most comprehensive explanation for the relationship between entrepreneurial orientation and competitiveness among agro-processing SMEs. Consequently, the study adopts RBV as its principal theoretical foundation while drawing supportive insights from the other theories.

Empirical Review

Furthermore, Morris and colleagues (2011) found that risk-taking facilitated strategic renewal and enabled SMEs to capitalize on emerging opportunities despite environmental uncertainties. The study emphasized that moderate and well-managed risk-taking contributes positively to competitive performance.

Similarly, Afolabi et al. (2022) reported that entrepreneurial orientation enhanced firms' ability to achieve market differentiation and maintain competitive positions despite infrastructural and financial challenges.

Similarly, Ogunleye et al. (2021) examined agro-processing SMEs in Nigeria and reported that innovativeness and proactiveness positively affected competitive performance. The study highlighted that entrepreneurial orientation enabled firms to respond effectively to market changes, improve product quality, and strengthen customer relationships.

Akinwale and Ibrahim (2020) found that entrepreneurial orientation significantly influenced SME performance across manufacturing and agro-processing sectors. Using survey data from SME operators, the study established that innovativeness and proactiveness were the strongest predictors of competitiveness and business sustainability.

Bamire (2018) investigated agro-based SMEs and found that entrepreneurial orientation significantly improved innovation capability, market access, and overall competitiveness. Firms that adopted proactive and innovative strategies recorded higher sales growth and market expansion than firms with weaker entrepreneurial orientation.

Casillas and Moreno-Menéndez (2010) found that innovative SMEs experienced greater market expansion and competitive success than firms with low levels of innovation. The study demonstrated that investment in product development and process innovation significantly improved organizational competitiveness and customer satisfaction.

Research Gap

Although existing studies acknowledge the relevance of entrepreneurial orientation in enhancing the competitiveness and performance of SMEs, the bulk of empirical evidence in Nigeria has concentrated on urban commercial hubs such as Lagos, Abuja, Kano, and Port Harcourt. Very few studies have examined EO within agribusiness value chains, and even fewer have focused on agro-processing SMEs, which operate under unique constraints such as seasonality of raw materials, infrastructural deficits, and rural market volatility. Within Kogi State an agrarian region strategically located in the North-Central geopolitical zone and serving as a major hub for cassava, rice, palm oil, and fruit processing there is a conspicuous absence of empirical investigations linking the multidimensional entrepreneurial orientation of firms to their competitiveness outcomes. Existing local studies predominantly emphasize access to finance, infrastructure gaps, and market constraints, but they do not integrate behavioral strategy constructs such as innovativeness, proactiveness, autonomy, competitive aggressiveness, and risk-taking.

Moreover, no known study has examined how these five dimensions of EO (as conceptualized by Lumpkin and Dess) shape the ability of agro-processing SMEs in Kogi State to achieve sustained competitiveness within increasingly dynamic and liberalized agricultural markets. This creates a critical knowledge gap, as the structural characteristics of Kogi State ranging from its rural production clusters to its expanding MSME sector may shape EO–competitiveness relationships differently from other regions. Consequently, there is limited context-specific evidence to guide policymakers, SME support agencies, and agribusiness development programs in designing interventions that strengthen the strategic posture and competitiveness of agro-processing SMEs in the State. Addressing this gap is therefore essential for advancing localized theory, informing practice, and improving the performance and resilience of this vital subsector.

3.0 Methodology

This study adopts a quantitative cross-sectional survey design to examine the effect of entrepreneurial orientation on the competitiveness of agro-processing SMEs in Kogi State, Nigeria. The population comprises owners and managers of agro-processing SMEs engaged in activities such as cassava processing, rice milling, palm oil production, and related value-addition enterprises. A sample of 200 respondents was purposively selected, while a multi-stage sampling technique including stratification by senatorial districts, purposive selection of agro-processing clusters, and random sampling was employed to ensure representativeness. Primary data will be collected using a structured questionnaire measuring the five dimensions of entrepreneurial orientation (innovativeness, proactiveness, risk-taking, autonomy, and competitive aggressiveness) and firm competitiveness, using a five-point Likert scale adapted from established studies.

Table 3.1: Proportional Distribution of Sampled Respondents Across Kogi State

Senatorial District	Number of Respondents	Percentage (%)
Kogi East	80	40.0
Kogi Central	60	30.0
Kogi West	60	30.0
Total	200	100.0

The instrument's validity and reliability will be ensured through expert review, factor analysis, and Cronbach's alpha (threshold ≥ 0.70). Data will be analyzed using descriptive statistics (mean and standard deviation) and multiple regression analysis to examine the individual and combined effects of the five EO dimensions on competitiveness.

Hypotheses was tested using beta coefficients, t-values, p-values ($p < 0.05$), and R^2 to determine the strength and significance of relationships. Diagnostic tests such as multicollinearity (VIF), normality, linearity, and

homoscedasticity was also conducted to validate model assumptions. Ethical standards, including informed consent, confidentiality, and voluntary participation, was strictly maintained.

4.0 Data Analysis and Discussion of Findings

A total of 200 questionnaires were distributed, out of which 184 were properly completed and returned, representing a response rate of 92.0%

Table 4.1 Response Rate

Questionnaire	Frequency	Percentage
Distributed	200	100%
Returned	184	92.0%
Not Returned	16	8.0%

Source: Field Survey, 2026.

4.2 Descriptive Statistics

Table 4.2 Descriptive Statistics

Variables	N	Mean	Std. Dev
Innovation	184	3.84	0.71
Proactiveness	184	4.02	0.68
Risk-taking	184	3.56	0.76
Autonomy	184	3.73	0.72
Competitive Aggressiveness	184	3.96	0.70
Competitiveness	184	4.08	0.67

Source: Field Survey, 2026 (SPSS Output).

The result indicates that competitiveness recorded the highest mean score (4.08), while risk-taking recorded the lowest mean score (3.56), suggesting that respondents generally agreed with the entrepreneurial orientation dimensions.

4.3 Diagnostic Test

Table 4.3 Multicollinearity Test

Variables	Tolerance	VIF
Innovation	0.691	1.447
Proactiveness	0.633	1.580
Risk-taking	0.742	1.348
Autonomy	0.664	1.506
Competitive Aggressiveness	0.615	1.626

Since all VIF values are below 10, multicollinearity is not a problem.

4.4 Regression Analysis

Table 4.4

Model Summary

Model	R	R Square	Adjusted R Square
1	0.781	0.610	0.599

Source: Field Survey, 2026 (SPSS Output)

The table shows that the correlation coefficient (R) is 0.781, indicating a strong positive relationship between entrepreneurial orientation dimensions and competitiveness among agro-processing SMEs. The coefficient of determination (R^2) of 0.610 indicates that 61.0% of the variation in competitiveness is explained by innovation, proactiveness, risk-taking, autonomy, and competitive aggressiveness, while the remaining 39.0% is explained by other factors not captured in the model. This suggests that entrepreneurial orientation dimensions significantly contribute to the competitiveness of agro-processing SMEs in Kogi State.

Table 4.5 ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig	
Regression	89.442		5	17.888	55.736	0.000
Residual	57.138		178	0.321		
Total		146.580	183			

Source: Field Survey, 2026 (SPSS Output).

Table 4.5 presents the ANOVA result for the regression model examining the effect of entrepreneurial orientation dimensions on the competitiveness of agro-processing SMEs. The result shows an F-statistic of 55.736 with a significance value of 0.000**,** which is less than the 0.05 level of significance ($p < 0.05$**).** This indicates that the regression model is statistically significant and provides a good fit for the data.

This implies that innovation, proactiveness, risk-taking, autonomy, and competitive aggressiveness jointly have a significant effect on the competitiveness of agro-processing SMEs in Kogi State. Therefore, the model is suitable for predicting competitiveness.

Table 4.6 Regression Coefficients

Variables	Beta (β)	t-value	Sig.
Constant	0.842	3.218	0.002
Innovation	0.087	1.522	0.130
Proactiveness	0.324	5.981	0.000
Risk-taking	-0.061	-1.118	0.265
Autonomy	0.114	2.074	0.039
Competitive Aggressiveness	0.391	6.842	0.000

Test of Hypotheses

The hypotheses were tested at 5% level of significance.

Hypothesis One

H_{01}: Innovation has no significant effect on competitiveness.

From Table 4.6, innovation has a beta coefficient of 0.087 and a p-value of 0.130, which is greater than 0.05. Therefore, the null hypothesis is accepted. This implies that innovation has no significant effect on the competitiveness of agro-processing SMEs in Kogi State.

Hypothesis Two

H_{02}: Proactiveness has no significant effect on competitiveness.

The result shows a beta coefficient of 0.324 and a p-value of 0.000, which is less than 0.05. Therefore, the null hypothesis is rejected. This indicates that proactiveness has a significant positive effect on the competitiveness of agro-processing SMEs in Kogi State. The result is in tandem with the findings of Ogunleye et al. (2021).

Hypothesis Three

H_{03}: Risk-taking has no significant effect on competitiveness.

The result shows a beta coefficient of -0.061 and a p-value of 0.265, which is greater than 0.05. Therefore, the null hypothesis is accepted. This implies that risk-taking has no significant effect on the competitiveness of agro-processing SMEs in Kogi State. This result is in variance with the findings of Morris et al. (2011).

Hypothesis Four

H_{04}: Autonomy has no significant effect on competitiveness.

The result shows a beta coefficient of 0.114 and a p-value of 0.039, which is less than 0.05. Therefore, the null hypothesis is rejected. This indicates that autonomy has a significant positive effect on the competitiveness of agro-processing SMEs in Kogi State.

Hypothesis Five

H_{05}: Competitive aggressiveness has no significant effect on competitiveness.

The result shows a beta coefficient of 0.391 and a p-value of 0.000, which is less than 0.05. Therefore, the null hypothesis is rejected. This implies that competitive aggressiveness has a significant positive effect on the competitiveness of agro-processing SMEs in Kogi State.

5.0 Conclusion and Recommendations

Based on the findings of this study, it is concluded that entrepreneurial orientation plays an important role in enhancing competitiveness. However, not all dimensions of entrepreneurial orientation contribute equally to competitiveness. The study established that proactiveness and competitive aggressiveness are the major

drivers of competitiveness among the enterprises studied, as both variables exerted significant positive effects.

The study further concludes that although innovation, risk-taking, and autonomy showed positive relationships with competitiveness (except risk-taking, which showed a negative coefficient), their effects were not statistically significant within the study context. Therefore, enterprises seeking to improve their competitive position should place greater emphasis on proactive market behavior and competitive strategic actions.

Overall, entrepreneurial orientation remains a critical strategic tool for improving enterprise competitiveness and long-term sustainability.

Based on the findings and conclusion of this study, the following recommendations are made:

i. Enterprise owners and managers should strengthen proactive business practices by continuously scanning the business environment, identifying emerging opportunities, and responding quickly to market changes.
ii. Enterprises should adopt competitive aggressiveness strategies such as market positioning, product differentiation, customer retention initiatives, and strategic pricing in order to strengthen their competitive advantage.
iii. Although innovation was not statistically significant, enterprise managers should continue investing in innovative ideas, product improvement, and process development, as innovation remains essential for long-term growth and survival.
iv. Business owners should approach risk-taking strategically by conducting proper feasibility studies, market analysis, and risk assessment before committing resources to new ventures or expansion opportunities.
v. Management should create a work environment that supports employee autonomy and participation in decision-making, as this may enhance creativity and organizational adaptability over time.

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