# Entrepreneurial Risk Tolerance and Growth of Agro-Based Small and Medium Enterprises in South-South, Nigeria

**Ethel N. Onukwufor PhD**
Department of Entrepreneurship,
Faculty of Administration and Management,
Ignatius Ajuru University of Education, Rumuolumeni,
Port Harcourt, Rivers State, Nigeria

**Clementina M. Ayomo PhD**
Department of Entrepreneurship,
Faculty of Administration and Management,
Ignatius Ajuru University of Education,
Rumuolumeni, P.M.B. 5047, Port Harcourt, Rivers State, Nigeria

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***Abstract***

*This study examined the relationship between entrepreneurial risk tolerance and growth of agro-based small and medium enterprises (SMEs) in South-South, Nigeria, with business growth operationalised through three measures: sales growth, profit growth, and market share growth. Anchored on Bandura's (1977) Self-Efficacy Theory of Entrepreneurship and supported by Barney's (1991) Resource-Based View, the study adopted a positivist, cross-sectional survey design. The population comprised 110 registered agro-based firms in South-South Nigeria, drawn from farming, fishery, poultry, livestock and agro-allied ventures. A census sampling technique was adopted, and four key respondents (owners and managerial staff) were purposively selected from each firm, giving a total of 440 administered questionnaires, out of which 400 were retrieved and 390 were valid and used for analysis. Data were analysed using descriptive statistics and Pearson Product Moment Correlation, aided by the Statistical Package for the Social Sciences (SPSS, version 25), with hypotheses tested at the 0.01 significance level. The results showed that risk tolerance had a very strong, positive and statistically significant relationship with sales growth ($r = 0.807$, $p < 0.01$), a moderate, positive and statistically significant relationship with profit growth ($r = 0.611$, $p < 0.01$), and a strong, positive and statistically significant relationship with market share growth ($r = 0.731$, $p < 0.01$). All three null hypotheses were rejected. The study concludes that entrepreneurial risk tolerance, reflected in owners' and managers' willingness to undertake calculated, bold and well-considered risks, is a significant driver of growth among agro-based SMEs, with its strongest influence observed on sales performance and its weakest, though still significant, influence on profit performance. It is recommended that agro-based SME owners and managers institutionalise formal risk assessment and mitigation frameworks that allow them to take calculated risks confidently, and that policymakers and financial institutions design risk-sharing instruments (such as agricultural credit guarantees and insurance schemes) that lower the cost of risk-taking for agro-based entrepreneurs. The findings extend resilience and entrepreneurial orientation literature to the under-researched agro-based SME sector in South-*

*South Nigeria and contribute to advancing Sustainable Development Goals 8, 9 and 12 and the African Union's Agenda 2063 aspirations on inclusive growth through entrepreneurship.*

***Keywords:*** *Entrepreneurial Risk Tolerance, Sales Growth, Profit Growth, Market Share Growth, Agro-Based SMEs, Business Growth*, Nigeria

## 1. Introduction

Small and medium enterprises (SMEs) are widely acknowledged as the engine room of economic development, particularly in emerging economies where they contribute significantly to employment generation, poverty reduction, and gross domestic product (Tawfeeq & Alabdullah, 2020). Within this broad category, agro-based SMEs occupy a strategically important position in Nigeria's South-South region, given the area's agricultural endowments spanning crop farming, fishery, poultry, livestock and agro-processing. Yet agro-based enterprises operate in an environment defined by considerable uncertainty: volatile commodity prices, unpredictable weather patterns, infrastructural deficits, policy inconsistency and constrained access to credit. Surviving, let alone growing, in such an environment calls for entrepreneurial attributes that go beyond routine managerial competence. Among the attributes identified in the resilience and entrepreneurial orientation literature, risk tolerance - the degree to which an individual or organisation is willing to accept potential losses or uncertainties in pursuit of returns - has been consistently theorised as central to entrepreneurial behaviour (Nouskali, 2019; Margahana & Negara, 2019). Risk tolerance shapes whether an entrepreneur invests in new technology, enters unfamiliar markets, diversifies product lines, or extends credit to customers, all of which have direct implications for how fast and how sustainably a firm grows (Wanjau, Wambugu & Mung'atu, 2015; Vrdoljak, 2024). Business growth itself is a multidimensional construct. For the purpose of this study, growth is measured through sales growth (the extent to which a firm's sales revenue and customer base expand over time), profit growth (the extent to which a firm's profitability, as reflected in profit margin and return on assets, improves over time), and market share growth (the extent to which a firm's relative standing and visibility within its market improves over time) (O'Regan, 2002; Kaplan & Norton, 1996). These three measures capture complementary, though distinct, dimensions of firm-level performance, and a full understanding of how risk tolerance drives growth requires that each be examined individually. Despite a growing body of literature linking entrepreneurial orientation and resilience to SME performance generally (Fatoki, 2014, 2018; Ayala & Manzano, 2014; Muthee-Mwangi & Ngugi, 2014), there remains limited sector-specific, quantitative evidence on how risk tolerance specifically, as distinct from other resilience or orientation dimensions, relates to each individual measure of business growth among agro-based SMEs operating in Nigeria's South-South region. This study addresses that gap by isolating entrepreneurial risk tolerance as the focal predictor and examining its relationship with sales growth, profit growth and market share growth among agro-based SMEs in the region.

### 1.1 Statement of the Problem

Agro-based SMEs in South-South Nigeria frequently exhibit risk-averse behaviour arising from limited access to formal credit, weak insurance penetration, and the compounding effect of climatic and market shocks peculiar to agriculture. This risk aversion, while seemingly protective in the short run, may constrain firms from pursuing the kind of calculated, growth-oriented risks - new market entry, product diversification, technology adoption, and larger resource commitments - that are often necessary for sustained sales, profit and market share expansion. At the same time, firms

that take on risk without a disciplined framework for managing it expose themselves to losses that threaten survival. The practical challenge facing agro-based SME owners and managers, therefore, is determining whether and how much risk-taking behaviour actually translates into measurable growth outcomes. Prior empirical work on this question remains fragmented, is rarely sector-specific, and is scarcer still within the South-South Nigerian agro-based context, leaving a gap that this study seeks to close.

### 1.2 Objectives of the Study

The broad objective of this study is to examine the relationship between entrepreneurial risk tolerance and growth of agro-based SMEs in South-South, Nigeria. Specifically, the study sought to:

- determine the relationship between risk tolerance and sales growth of agro-based SMEs in South-South, Nigeria;
- determine the relationship between risk tolerance and profit growth of agro-based SMEs in South-South, Nigeria;
- determine the relationship between risk tolerance and market share growth of agro-based SMEs in South-South, Nigeria.

### 1.3 Research Questions

- What is the relationship between risk tolerance and sales growth of agro-based SMEs in South-South, Nigeria?
- What is the relationship between risk tolerance and profit growth of agro-based SMEs in South-South, Nigeria?
- What is the relationship between risk tolerance and market share growth of agro-based SMEs in South-South, Nigeria?

### 1.4 Research Hypotheses

The following null hypotheses were tested at the 0.01 level of significance:

- Ho1: There is no significant relationship between risk tolerance and sales growth of agro-based SMEs in South-South, Nigeria.
- Ho2: There is no significant relationship between risk tolerance and profit growth of agro-based SMEs in South-South, Nigeria.
- Ho3: There is no significant relationship between risk tolerance and market share growth of agro-based SMEs in South-South, Nigeria.

### 1.5 Significance of the Study

This study is of practical value to agro-based SME owners and managers seeking evidence-based guidance on how calculated risk-taking relates to firm growth, and to policymakers, development finance institutions and agricultural lending agencies interested in designing risk-sharing instruments that support entrepreneurial risk-taking in the agricultural value chain. Theoretically, the study extends Self-Efficacy Theory and the Resource-Based View into the empirical context of agro-based entrepreneurship in South-South Nigeria, and contributes sector-specific evidence to the broader literature on entrepreneurial resilience and SME growth.

## 2. Literature Review

### 2.1 Conceptual Review

#### *2.1.1 Entrepreneurial Risk Tolerance*

Risk tolerance is the degree to which an individual or organisation is willing to accept potential losses or uncertainties (Vrdoljak, 2024). It is widely regarded as a defining trait of entrepreneurship, tracing back historically to Cantillon's eighteenth-century characterisation of the entrepreneur as one who undertakes ventures whose outcomes are shrouded in uncertainty (Nouskali, 2019). Risk tolerance is not merely a measure of how much risk an entity is willing to take; it is a framework that shapes how an entrepreneur approaches risk, manages potential losses, and builds the capacity to withstand disruptions while still pursuing opportunity (Wanjau et al., 2015). The construct combines two elements that must work in tandem: willingness, an entrepreneur's psychological comfort with risk, and ability, the entrepreneur's objective financial and operational capacity to absorb a loss should the risk not pay off (Suri, 2024). The U.S. Securities and Exchange Commission's Chief Investment Office defines risk tolerance, in the investment context, as an investor's ability and willingness to lose some or all of an investment in exchange for greater potential returns (Vrdoljak, 2024) - a definition that maps directly onto the entrepreneurial decision to commit scarce resources to an uncertain venture or opportunity.

In this study, risk tolerance is operationalised through two sub-indicators commonly used in the resilience and entrepreneurial-orientation literature: risk orientation, an individual's fundamental attitude toward uncertainty - inclined either to avoid risk or embrace it (Strycharczyk, 2023); and risk perception, the subjective assessment of risk that influences decision-making under uncertainty (Slovic, 2000; Paek & Hove, 2017). Entrepreneurs with high risk tolerance are more disposed to bold rather than cautious action, to committing significant resources in pursuit of high returns, and to pursuing opportunities despite exposure to legal, financial or operational risk (Wanjau et al., 2015; Kljucnikov, Belas & Smrcka, 2016).

#### *2.1.2 Business Growth and its Measures*

Business growth refers to the expansion of a firm's scale, output, revenue or market standing over time, and has long been regarded as a principal indicator of entrepreneurial success (Gatenya, 2012; Yahya, 2014). This study adopts three widely used measures of business growth.

***Sales Growth***

Sales growth refers to the increase in a business's sales revenue relative to a prior corresponding period, and is typically expressed as a percentage (Eliasson, 1976). It is a visible benchmark that firms use to motivate managers, plan budgets and signal underlying operational and market strength (Kaplan & Norton, 1996). In this study, sales growth is captured through sales revenue and customer retention.

***Profit Growth***

Profit growth denotes improvement in a firm's profitability over time, commonly assessed through profit margin and return on assets (Ramachandran & Raju, 2012; Ross, 2008). Because profit growth reflects not just revenue expansion but also cost and resource-use efficiency, it is considered a stricter test of entrepreneurial performance than sales growth alone (Myers, 1984).

***Market Share Growth***

Market share growth refers to an increase in a firm's sales relative to total industry sales within its competitive space (O'Regan, 2002; Pearce & Robinson, 2003). It is captured in this study through product visibility and market leadership, and is widely regarded as a key indicator of competitiveness since, unlike profit, it is less sensitive to macroeconomic fluctuations (O'Regan, 2002).

## 2.2 Theoretical Framework

### *2.2.1 Self-Efficacy Theory of Entrepreneurship*

This study is primarily anchored on Bandura's (1977) Self-Efficacy Theory of Entrepreneurship, which proposes that an individual's belief in their ability to perform a given task - self-efficacy - is an antecedent to the formation of entrepreneurial intentions and behaviour. Entrepreneurs with high self-efficacy are more confident in their capacity to manage uncertainty, which in turn disposes them toward greater risk tolerance: the conviction that one can successfully navigate an uncertain venture is a psychological precondition for being willing to undertake it. Self-Efficacy Theory therefore provides the theoretical mechanism linking an entrepreneur's internal belief system to the observable risk-taking behaviour measured in this study, and onward to firm-level growth outcomes.

### *2.2.2 Resource-Based View (Supporting Theory)*

The study is further supported by Barney's (1991) Resource-Based View (RBV), which holds that a firm's sustained competitive advantage and growth derive from resources and capabilities that are valuable, rare, imperfectly imitable and non-substitutable. Within this framework, risk tolerance can be understood as an intangible organisational capability - a disposition embedded in ownership and management - that is difficult for competitors to replicate and that enables the firm to identify, pursue and capitalise on opportunities that more risk-averse rivals would decline. The RBV therefore complements Self-Efficacy Theory by explaining why risk tolerance, once present in a firm, can function as a genuine source of competitive growth rather than merely a personality trait.

## 2.3 Empirical Review

Wanjau, Wambugu and Mung'atu (2015) examined the risk profile and appetite of SMEs in Kenya's agro-processing industry and found that performance and profitability improved as small firms undertook greater levels of risk, lending direct support to a positive risk tolerance-performance relationship in an agricultural SME context closely comparable to the present study.

Kljucnikov, Belas and Smrcka (2016) investigated risk-taking tendencies in SME management and found that firms led by managers with a higher propensity for calculated risk-taking were better positioned to pursue growth opportunities, reinforcing risk tolerance as a managerial, rather than purely entrepreneurial, capability.

Fatoki (2014) studied the entrepreneurial orientation of micro-enterprises in South Africa's retail sector and found adeptness in introducing new product lines but relative weakness in risk-taking and research and development, suggesting that the growth benefits of risk tolerance are contingent on it being actively exercised rather than merely latent. In a related later study, Fatoki (2018) found a significant positive relationship between entrepreneurial resilience - of which risk tolerance is a component - and SME success in South Africa.

Ayala and Manzano (2014), in a longitudinal study of Spanish entrepreneurs, found that resilience dimensions including hardiness, resourcefulness and optimism were strong predictors of business success, a finding consistent with the proposition that psychological dispositions toward uncertainty, of which risk tolerance is one, translate into tangible performance outcomes.

Muthee-Mwangi and Ngugi (2014) examined the influence of entrepreneurial orientation, including risk-taking, on the growth of micro and small enterprises in Kerugoya, Kenya, and found that entrepreneurial orientation dimensions positively and significantly influenced business growth, corroborating the growth-enhancing role of risk-taking behaviour in small-firm contexts across East Africa.

Collectively, these studies converge on the view that calculated risk-taking is positively associated with SME performance, yet few have disaggregated business growth into sales, profit and market share measures or focused specifically on agro-based SMEs within Nigeria's South-South region - the gap that the present study addresses.

### 2.4 Gap in Literature

While the reviewed studies establish a general positive association between risk-taking or resilience and SME performance, most are either sector-general (not agro-specific), conducted outside Nigeria, or treat business growth as a single composite outcome rather than disaggregating it into sales, profit and market share growth. This study addresses these gaps by providing disaggregated, quantitative, SPSS-analysed evidence of how entrepreneurial risk tolerance specifically relates to each of the three growth measures among agro-based SMEs in South-South Nigeria.

## 3. Methodology

This study is anchored in the positivist research philosophy, which holds that reality is objective, observable and measurable through empirical investigation, and is therefore well suited to establishing statistical relationships between risk tolerance and measurable growth outcomes (Durkheim, 1918).

### 3.1 Research Design

The study adopted a cross-sectional survey research design, involving the collection of data from a defined population of agro-based SME owners and managers at a single point in time, in order to describe and statistically test the relationship between risk tolerance and the three growth measures.

### 3.2 Population of the Study

The population comprised 110 registered agro-based firms in South-South Nigeria (spanning Akwa Ibom, Bayelsa, Cross River, Delta, Edo and Rivers States), drawn from the Nigeria Business Directory and engaged in farming, fishery, poultry, livestock, feed sales and other agro-allied ventures.

### 3.3 Sample Size and Sampling Technique

Given the relatively small population, a census sampling technique was adopted, involving all 110 firms. From each firm, four key respondents - the owner(s) and three employees in managerial roles with direct involvement in entrepreneurial decision-making - were purposively selected, yielding a total of 440 respondents across the six states.

### 3.4 Nature and Sources of Data

The study relied on primary data obtained through a structured questionnaire and supplementary personal interviews, ensuring first-hand data directly from respondents engaged in agro-based entrepreneurial activity.

### 3.5 Research Instrument

A self-designed structured questionnaire, the Entrepreneurial Resilience and Business Growth Questionnaire (ERBG), was used for data collection. For the purpose of this article, the relevant sections measured risk tolerance (5 items, covering boldness in decision-making, aggressive pursuit of opportunity, attraction to high-risk/high-return projects, tolerance of legal/operational risk, and cash-flow adequacy for risk-bearing) and the three growth measures - sales growth, profit growth and market share growth (5 items each). All items were rated on a five-point Likert scale: Strongly Disagree (1), Disagree (2), Moderately Agree (3), Agree (4), and Strongly Agree (5).

### 3.6 Validity and Reliability of the Instrument

Face and content validity were established through expert review by a Professor of Entrepreneurship and a Measurement and Evaluation specialist, supplemented by a pilot study whose data were subjected to Exploratory Factor Analysis (Principal Component Analysis) to confirm that items loaded appropriately on their intended constructs. Reliability was assessed using Cronbach's Alpha; the overall instrument returned a coefficient of 0.846 across seven constructs (Bryman & Bell's, 2003, threshold of 0.70 or above taken as acceptable), with the risk tolerance construct returning a corrected item-total correlation of 0.959, indicating excellent internal consistency (Table 1).

**Table 1: Reliability Statistics**

| Construct | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation |
|---|---|---|---|
| Risk Tolerance | 14.10 | 38.544 | 0.959 |
| Sales Growth | 14.00 | 37.556 | 0.938 |
| Profit Growth | 14.20 | 37.511 | 0.961 |
| Market Share Growth | 13.80 | 37.956 | 0.774 |

*Overall Cronbach's Alpha = 0.846 (7 items). Source: Field Survey Data, 2026 (SPSS version 25).*

### 3.7 Administration of the Instrument

The questionnaire was administered by the researcher with the assistance of four trained research assistants over a six-week period. Of the 440 copies distributed, 400 (90.9%) were retrieved, and 390 (88.6%) were adequately completed and used for analysis.

### 3.8 Method of Data Analysis

Data were analysed with the aid of the Statistical Package for the Social Sciences (SPSS, version 25). Descriptive statistics (mean and standard deviation) were used to summarise responses on risk tolerance and each growth measure, while Pearson Product Moment Correlation (PPMC) was used to test the three stated hypotheses, with statistical significance assessed at the 0.01 level (2-tailed).

**Table 2: Correlation Coefficient Interpretation Benchmark**

| Correlation Coefficient (r) Range | Strength of Relationship |
|---|---|
| ±0.00 - ±0.09 | Very Weak / No Relationship |
| ±0.10 - ±0.29 | Weak Relationship |
| ±0.30 - ±0.49 | Moderate Relationship |
| ±0.50 - ±0.69 | Strong Relationship |
| ±0.70 - ±1.00 | Very Strong Relationship |

*Source: Adapted from Cohen (1988); Evans (1996); and Pallant (2020).*

## 4. Results

### 4.1 Response Rate

**Table 3: Questionnaire Distribution and Response Rate**

| Description | Number of Questionnaires | Percentage (%) |
|---|---|---|
| Questionnaire distributed | 440 | 100.0 |
| Questionnaire retrieved | 400 | 90.9 |
| Adequately completed and used | 390 | 88.6 |

*Source: Field Survey Data, 2026.*

### 4.2 Descriptive Statistics on Risk Tolerance

**Table 4: Descriptive Statistics on Risk Tolerance (N = 390)**

| Item | Mean | Std. Dev. |
|---|---|---|
| Our organisation often engages in bold rather than cautious actions | 2.81 | 1.353 |
| Our firm is bold and aggressive in pursuing opportunities (e.g., incurring heavy debt or large resource commitments for high returns) | 2.94 | 1.464 |
| We are attracted to projects even when risk is higher, to get a higher level of return | 2.86 | 1.290 |
| Legal, fraud, personnel and business-model risks do not deter us from investing in new opportunities | 2.90 | 1.313 |
| Our cash flow is adequate to pay basic expenses necessary to continue functioning as a business | 2.79 | 1.216 |

*Source: Field Survey Data, 2026 (SPSS output version 25).*

Table 4 shows that respondents reported a moderate overall level of risk tolerance, with the highest mean recorded for bold and aggressive pursuit of opportunities (mean = 2.94, SD = 1.464) and the lowest for adequacy of cash flow to support risk-bearing (mean = 2.79, SD = 1.216). The relatively high standard deviations across all items indicate considerable variability in risk tolerance across firms, suggesting that while some agro-based SMEs in the region are bold and opportunity-seeking, a substantial proportion remain cautious, constrained in part by liquidity limitations.

### 4.3 Test of Hypotheses

The three null hypotheses were tested using Pearson Product Moment Correlation at the 0.01 level of significance. The decision rule applied was to reject the null hypothesis where the computed p-value (Sig.) was less than 0.01.

***Hypothesis One: Risk Tolerance and Sales Growth***

**Table 5: Correlation between Risk Tolerance and Sales Growth**

| | | Risk Tolerance | Sales Growth |
|---|---|---|---|
| Risk Tolerance | Pearson Correlation | 1 | 0.807** |
| | Sig. (2-tailed) | | 0.000 |
| | N | 390 | 390 |
| Sales Growth | Pearson Correlation | 0.807** | 1 |
| | Sig. (2-tailed) | 0.000 | |
| | N | 390 | 390 |

***Correlation is significant at the 0.01 level (2-tailed). Source: SPSS Output, 2026.*

Table 5 reveals a very strong, positive and statistically significant relationship between risk tolerance and sales growth of agro-based SMEs in South-South, Nigeria ($r = 0.807$, $p = 0.000 < 0.01$). The null hypothesis (Ho1) is therefore rejected: risk tolerance has a significant effect on sales growth.

***Hypothesis Two: Risk Tolerance and Profit Growth***

**Table 6: Correlation between Risk Tolerance and Profit Growth**

| | | Risk Tolerance | Profit Growth |
|---|---|---|---|
| Risk Tolerance | Pearson Correlation | 1 | 0.611** |
| | Sig. (2-tailed) | | 0.000 |
| | N | 390 | 390 |
| Profit Growth | Pearson Correlation | 0.611** | 1 |
| | Sig. (2-tailed) | 0.000 | |
| | N | 390 | 390 |

***Correlation is significant at the 0.01 level (2-tailed). Source: SPSS Output, 2026.*

Table 6 reveals a moderate, positive and statistically significant relationship between risk tolerance and profit growth of agro-based SMEs in South-South, Nigeria ($r = 0.611$, $p = 0.000 < 0.01$). The null hypothesis (Ho2) is therefore rejected: risk tolerance has a significant effect on profit growth, though the effect is comparatively more modest than its effect on sales growth.

***Hypothesis Three: Risk Tolerance and Market Share Growth***

**Table 7: Correlation between Risk Tolerance and Market Share Growth**

| | | Risk Tolerance | Market Share Growth |
|---|---|---|---|
| Risk Tolerance | Pearson Correlation | 1 | 0.731** |
| | Sig. (2-tailed) | | 0.000 |
| | N | 390 | 390 |
| Market Share Growth | Pearson Correlation | 0.731** | 1 |
| | Sig. (2-tailed) | 0.000 | |
| | N | 390 | 390 |

***Correlation is significant at the 0.01 level (2-tailed). Source: SPSS Output, 2026.*

Table 7 reveals a strong, positive and statistically significant relationship between risk tolerance and market share growth of agro-based SMEs in South-South, Nigeria ($r = 0.731$, $p = 0.000 < 0.01$). The null hypothesis (Ho3) is therefore rejected: risk tolerance has a significant effect on market share growth.

### 4.4 Summary of Results

**Table 8: Summary of Hypotheses Testing**

| Hypothesis | Relationship Tested | r | Strength | Sig. | Decision |
|---|---|---|---|---|---|
| Ho1 | Risk Tolerance → Sales Growth | 0.807 | Very Strong Positive | $p < 0.01$ | Rejected |
| Ho2 | Risk Tolerance → Profit Growth | 0.611 | Moderate Positive | $p < 0.01$ | Rejected |
| Ho3 | Risk Tolerance → Market Share Growth | 0.731 | Strong Positive | $p < 0.01$ | Rejected |

*Source: Field Survey Data, 2026 (SPSS output, version 25).*

Using the coefficient of determination ($R^2 = r^2$) as an indicative measure of shared variance, risk tolerance alone accounts for approximately 65.1% of the variance in sales growth, 37.3% of the variance in profit growth, and 53.4% of the variance in market share growth among the agro-based SMEs surveyed - underscoring risk tolerance as a substantial, though not sole, driver of firm growth in this sector.

## 5. Discussion of Findings

### *5.1 Risk Tolerance and Sales Growth*

The finding of a very strong positive relationship between risk tolerance and sales growth ($r = 0.807$, $p < 0.01$) suggests that agro-based SME owners who exhibit a willingness to take calculated risks are more likely to pursue new opportunities, explore innovative markets, and adopt strategic initiatives that directly enhance sales performance. This result is consistent with Wanjau et al. (2015), who found that SME performance and profitability in Kenya's agro-processing sector improved as firms undertook greater levels of risk, and with Kljucnikov et al. (2016), who identified risk-taking behaviour as a critical component of entrepreneurial success and competitive

aggressiveness. The strength of this relationship, the highest among the three measures examined, indicates that risk tolerance may be the single most influential resilience-related capability shaping sales performance in this sector, plausibly because bolder entrepreneurs more readily experiment with new products, markets and promotional strategies that expand the customer base.

### *5.2 Risk Tolerance and Profit Growth*

The moderate positive relationship between risk tolerance and profit growth ($r = 0.611$, $p < 0.01$), while still highly significant, is comparatively weaker than the relationship observed for sales growth and market share growth. This is consistent with Ayala and Manzano (2014), who found that risk-related resilience traits such as hardiness and resourcefulness predicted business success, though not always with uniform strength across performance indicators. A plausible explanation is that bold risk-taking (for example, incurring heavy debt or committing large resources to pursue opportunities) can expand revenue and market presence relatively quickly, but its translation into profit growth is moderated by the additional costs, financing charges and operational risks that accompany aggressive expansion - meaning the profit benefits of risk tolerance may lag behind, or be partially offset by, the costs of risk-taking itself.

### *5.3 Risk Tolerance and Market Share Growth*

The strong positive relationship between risk tolerance and market share growth ($r = 0.731$, $p < 0.01$) indicates that agro-based SME owners willing to take calculated risks, such as exploring new markets, launching innovative products, or adopting novel strategies, are more likely to expand their market presence. This aligns with Muthee-Mwangi and Ngugi (2014), who found that entrepreneurial orientation dimensions, including risk-taking, significantly and positively influenced the growth of micro and small enterprises in Kenya. Risk-tolerant agro-based SMEs appear better positioned to pursue opportunities that more risk-averse competitors avoid, allowing them to capture underserved customer segments and strengthen their competitive positioning within the agro-based value chain.

### *5.4 Integrative Discussion*

Taken together, the three results depict risk tolerance as a consistently significant, though variably strong, predictor of agro-based SME growth, with its influence most pronounced on sales growth, moderately strong on market share growth, and comparatively more modest, though still substantial, on profit growth. This pattern is theoretically consistent with Self-Efficacy Theory (Bandura, 1977): entrepreneurs who believe in their capacity to manage uncertainty are more willing to act boldly, and this boldness most directly and immediately manifests in top-line indicators (sales and market presence) before it fully translates into the bottom-line efficiency captured by profit growth. It is equally consistent with the Resource-Based View (Barney, 1991), in that risk tolerance functions as a rare, firm-embedded capability that, when exercised, allows agro-based SMEs to exploit opportunities unavailable to less risk-tolerant competitors, thereby generating a basis for sustained growth and competitive advantage.

## 6. Conclusion

This study examined the relationship between entrepreneurial risk tolerance and three measures of business growth - sales growth, profit growth and market share growth - among agro-based SMEs in South-South, Nigeria. All three null hypotheses were rejected: risk tolerance was found to have a very strong positive relationship with sales growth, a moderate positive relationship with profit

growth, and a strong positive relationship with market share growth. The study concludes that entrepreneurial risk tolerance is a significant and substantial driver of growth among agro-based SMEs in the region, though its growth-enhancing effect is not uniform across performance measures - it is most powerful in driving sales expansion and comparatively more constrained in driving profit improvement, implying that the costs associated with bold risk-taking partially temper its profitability dividend.

## 7. Recommendations

1) Agro-based SME owners and managers should institutionalise formal risk assessment and mitigation frameworks - including basic cash-flow forecasting and contingency planning - that allow them to take calculated risks confidently rather than either avoiding risk altogether or taking it recklessly.
2) Because the weakest relationship observed was between risk tolerance and profit growth, firms that choose to take bold risks should pair such decisions with disciplined cost management and financial monitoring, to ensure that revenue and market gains from risk-taking are not eroded by uncontrolled costs.
3) Financial institutions, development finance agencies and agricultural credit schemes should design risk-sharing instruments, such as agricultural credit guarantees, crop and asset insurance, and blended-finance facilities, that lower the effective cost and consequence of risk-taking for agro-based entrepreneurs, thereby enabling more firms to exercise productive risk tolerance.
4) Government and agricultural extension agencies should provide training and mentorship programmes that strengthen entrepreneurs' self-efficacy and risk-assessment skills, consistent with the theoretical mechanism identified in this study linking belief in one's capability to the willingness to take growth-oriented risks.
5) Future firm-level growth strategy in the sector should treat risk tolerance as a capability to be deliberately cultivated, for example through scenario planning and small-scale pilot ventures, rather than as a fixed personality trait, so that more agro-based SMEs can safely convert calculated risk-taking into sales, profit and market share gains.

## 8. Contribution to Knowledge

This study contributes to the entrepreneurial resilience and SME growth literature by providing disaggregated, sector-specific, quantitative evidence on how risk tolerance - isolated from other resilience dimensions - relates individually to sales growth, profit growth and market share growth among agro-based SMEs in South-South Nigeria, an empirical and geographical context that remains under-represented in the literature. In doing so, it extends the applicability of Self-Efficacy Theory and the Resource-Based View to agro-based entrepreneurship in a developing-economy setting, and offers a comparative ranking of growth outcomes (sales > market share > profit) that can guide more targeted policy and managerial interventions. The findings further speak to Sustainable Development Goals 8 (Decent Work and Economic Growth), 9 (Industry, Innovation and Infrastructure) and 12 (Responsible Consumption and Production), and to the African Union's Agenda 2063 aspirations for inclusive growth driven by entrepreneurship.

## 9. Limitations and Suggestions for Further Studies

As a cross-sectional study relying on self-reported perceptual data, the findings are subject to common-method and social-desirability bias, and causality between risk tolerance and growth outcomes is inferred from theory rather than established through longitudinal observation. Future

research should consider longitudinal designs that track risk tolerance and growth outcomes over multiple periods, incorporate objective financial data where obtainable, and examine moderating or mediating variables - such as access to credit, firm size, or organisational policy - that may condition the strength of the risk tolerance-growth relationship identified in this study.

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