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Entrepreneurial Innovation and Performance of Small-Scale Agribusiness Grain Farmers in North Rift, Kenya

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Abstract

Purpose: In North Rift Kenya, small-scale farmers are struggling to make ends meet despite contributing the largest percentage of maize production in the country. Therefore, this study the study sought to determine the influence of entrepreneurial innovation on performance of small-scale agribusiness grain farmers in North Rift, Kenya.

Methodology: The study adopted the positivist research philosophy and descriptive survey research design was utilized. Target population included 497,737 small-scale agribusiness grain farmers in North Rift, Kenya. Yamane's Formula of sample size determination was applied to derive a sample size of 400 respondents. Questionnaire was used for data collection. SPSS version 25 was applied in analyzing the data collected. The quantitative data comprised of the descriptive and inferential statistics. Descriptive statistics were summarized into percentages, mean and the standard deviation which was presented using figures, frequency tables and pie-charts. Inferential statistics were applied to test the hypothesis for the study.

Findings: The findings showed that Innovation and performance of small-scale agribusiness grain farmers has a positive and significant relationship. The relationship between Entrepreneurial Innovation and the performance of small-scale agribusiness grain farmers in North Rift, Kenya was significant ($F=539.106$, p-value=0.000<0.05), with $R^2 =0.576$.

Unique Contribution to Theory, Practice and Policy: The study recommended individual farmers to embrace and use new techniques and technologies on their farms so as boost production while cutting costs.

Keywords: *Agribusiness, Agriculture, Entrepreneurship, Production*

JEL Codes: *Q13, O13, L26, D24*

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INTRODUCTION

Entrepreneurial innovation has emerged as a critical driver of agribusiness transformation, particularly in regions where small-scale farming dominates agricultural production. It refers to the capacity of individuals or firms to generate, implement, and commercialize new ideas, products, or processes that enhance value creation and competitive advantage (Schumpeter, 1949). Globally, innovation in agriculture, through new products, processes, and market strategies has been linked to improved productivity, resilience, and competitiveness among smallholder farmers (Linton, 2019). In developing economies, entrepreneurial innovation enables farmers to adapt to volatile market conditions, overcome resource constraints, and create value across the agricultural value chain (Al-Mamary & Alshallaqi, 2022).

In the African context, small-scale farmers face persistent challenges including low productivity, limited access to technology, poor market linkages, and post-harvest losses (OAtube et al., 2021). Despite their central role in food production, many remain trapped in subsistence cycles. Entrepreneurial innovation offers a pathway to break this cycle by enhancing agribusiness performance through differentiation, efficiency, and market responsiveness (Makini et al., 2018). Examples include adoption of climate-resilient seed varieties, mobile-based market platforms, and decentralized processing technologies.

Kenya's North Rift region contributes over 50% of the country's maize supply (KNBS, 2022), yet small-scale grain farmers in the area continue to struggle with low incomes, poor storage infrastructure, and limited access to reliable market information (Kumar & Kalita, 2017). Compared to the national average maize yield of 1.6 metric tons per hectare, North Rift consistently records higher yields, averaging 2.3 metric tons per hectare due to its fertile soils and favorable climate (MoALF, 2021). Historically, the region has served as Kenya's strategic grain basket, playing a pivotal role in national food security and buffer stock stabilization. These advantages, however, remain under-leveraged due to structural inefficiencies and limited innovation uptake. Innovation, whether through improved seed varieties, digital marketing, value-added processing, or novel distribution models has the potential to unlock performance gains and reposition these farmers as dynamic agripreneurs (Chen, 2021).

While entrepreneurial innovation has been widely studied, there remain conceptual and empirical gaps to be filled. Existing studies often bundle innovation with other dimensions such as risk-taking and proactiveness, obscuring its distinct impact (Fan et al., 2021). This study therefore seeks to examine the influence of entrepreneurial innovation on the performance of small-scale agribusiness grain farmers in North Rift, Kenya. It will focus on how innovation in products, processes, and ideas contributes to sales growth, market expansion, and enterprise sustainability.

Problem Statement

Entrepreneurial innovation is expected to enhance agribusiness performance by enabling farmers to adopt new technologies, diversify products, and access competitive markets (Linton, 2019). In Kenya, small-scale agribusiness grain farmers in the North Rift region, who contribute over 50% of the country's maize supply (KNBS, 2022), are anticipated to benefit from innovation-driven practices. However, data shows persistent performance challenges: low incomes, post-harvest losses, and limited access to value-added markets (Kumar & Kalita, 2017). These issues

disproportionately affect small-scale farmers operating on less than five acres, who remain vulnerable to market inefficiencies and lack the innovation capacity to improve productivity and competitiveness.

Although prior studies have examined related themes, they have not adequately isolated entrepreneurial innovation as a primary driver of performance. For instance, Kamau and Wandiga (2025) examined strategic resources and performance among listed agribusiness firms; Hailu et al. (2025) studied strategic orientation and innovation capability in Ethiopia; and Fan et al. (2021) treated innovation as a mediating variable in Pakistan's SME context. While previous studies have examined innovation at firm or SME level, there is limited evidence on farmer-level agribusiness innovation in Kenya's grain sector. Moreover, the logical connection between these broader studies and the lived realities of small-scale grain farmers in North Rift remains underdeveloped—particularly in terms of how innovation translates into tangible performance outcomes at the farm enterprise level. These studies offer useful perspectives but do not address farmer-level innovation in Kenya's grain-producing regions. To fill this gap, the current study investigates how entrepreneurial innovation, through new products, processes, and ideas, influences the performance of small-scale agribusiness grain farmers in North Rift, Kenya.

LITERATURE REVIEW

Theoretical Framework

Entrepreneurial Innovation Theory, originally proposed by Joseph Schumpeter (1949), positions innovation as the central function of entrepreneurship, where new combinations of products, processes, and markets drive economic transformation through "creative destruction." This theory suggests that entrepreneurs who embrace innovation, whether technological, organizational, or market-based are more likely to achieve superior performance outcomes. In contemporary applications, it emphasizes the strategic role of innovation in enhancing firm performance, particularly in dynamic and resource-constrained sectors.

However, Schumpeter's notion of "creative destruction" assumes a level of institutional fluidity and market dynamism that may not fully reflect the realities of smallholder agribusiness in Africa. In contexts like Kenya's North Rift, innovation is often incremental and survival-driven rather than disruptive. Farmers operate within rigid land tenure systems, limited financial access, and volatile input markets. These conditions constrain the radical transformation Schumpeter envisioned. Thus, while the theory offers a compelling foundation, its application requires contextual reinterpretation to capture the adaptive and frugal innovations typical of small-scale farming.

To broaden the theoretical lens, this study also draws on Diffusion of Innovations Theory (Rogers, 1962), which explains how new ideas and technologies spread within a social system. This framework is particularly relevant to agribusiness, where peer influence, extension services, and cultural norms shape the adoption of innovations such as mobile platforms, improved seed varieties, and post-harvest technologies. Rogers' model helps unpack the rate and pattern of innovation uptake among small-scale farmers, highlighting the roles of early adopters, opinion leaders, and institutional support in scaling agribusiness innovations.

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Additionally, the Resource-Based View (RBV) of the firm (Barney, 1991) provides a strategic perspective by linking innovation to internal capabilities. It posits that sustainable competitive advantage arises from resources that are valuable, rare, inimitable, and non-substitutable. In the agribusiness context, farmer-level resources such as experiential knowledge, social capital, and access to localized technologies become critical enablers of innovation-driven performance. This theory complements Schumpeter by emphasizing the strategic deployment of internal assets rather than relying solely on external market disruption.

In the context of small-scale agribusiness grain farmers in Kenya's North Rift region, these theories collectively anchor entrepreneurial innovation by explaining how practices such as climate-resilient seeds, mobile market platforms, or solar irrigation systems can enhance productivity, profitability, and market access. For example, a farmer who integrates mobile-based weather forecasting and precision planting techniques exemplifies Schumpeterian innovation, while the diffusion of such practices across farming communities reflects Rogers' model. The ability to leverage personal networks and localized knowledge to sustain these innovations aligns with RBV principles.

Together, these theoretical perspectives inform the construction of a framework that links innovation dimensions to measurable agribusiness outcomes. By integrating Schumpeter's emphasis on innovation, Rogers' insights on adoption dynamics, and Barney's resource-centric view, the study gains theoretical depth and contextual relevance. This multidimensional approach enables a nuanced understanding of how innovation drives agribusiness success in emerging economies, particularly where structural constraints and resource limitations shape entrepreneurial behavior.

Conceptual Framework

This study hypothesized that entrepreneurial innovation, through new processes, ideas, and products influenced the performance of small-scale agribusiness grain farmers in Kenya's North Rift region. Performance is measured by sales growth, market share, and enterprise expansion.

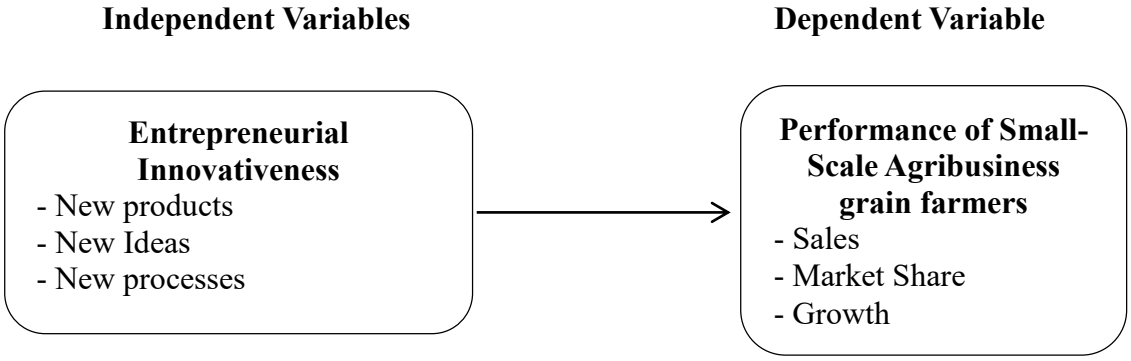

Figure 1: Conceptual Framework

The conceptual framework of this study defines entrepreneurial innovation as a multidimensional construct comprising product, process, and idea-based innovations. These dimensions are operationalized through specific survey items that capture the strategic behaviors of small-scale agribusiness grain farmers in Kenya's North Rift region. Product innovation is measured by the introduction of new or value-added agricultural outputs, while process innovation reflects

improvements in production techniques and resource efficiency. Idea-based innovation includes novel marketing strategies, customer engagement, and knowledge acquisition. Each dimension is assessed using Likert-scale items, allowing for quantifiable analysis of innovation intensity and its relationship to performance outcomes.

By explicitly defining these indicators, the framework enhances replicability and ensures a clear empirical link between theory and practice. This structured approach enables a nuanced understanding of how entrepreneurial innovation drives agribusiness performance in resource-constrained environments. It also provides a foundation for future research to assess innovation using validated, context-sensitive metrics tailored to smallholder farming systems.

Empirical Review

In Europe, a study by Al Maalouf, El Achi, and Balouza (2025) investigated the impact of transformational leadership on innovation activities, specifically focusing on exploration and exploitation, within small and medium-sized enterprises (SMEs). Additionally, the study explores how this innovation activities affect business performance. A sample of 430 leaders and executives from SMEs across Europe was surveyed to examine these relationships. The study findings showed that both types of innovation had a positive impact on the business performance of SMEs in Europe. This study presents a clear contextual gap**.** The European SME environment differs significantly from the agribusiness landscape in Sub-Saharan Africa, particularly among smallholder farmers in Kenya. Factors such as access to resources, market dynamics, institutional support, and socio-economic conditions vary widely, making it necessary to investigate innovation-performance linkages within a localized agricultural context. The current study sought to isolate entrepreneurial innovation and assess its direct influence on agribusiness performance, thereby addressing a conceptual gap in the literature. Future studies should explore how transformational leadership interacts with farmer-level innovation adoption in agribusiness settings, especially in rural African contexts where leadership structures are informal and community-based.

In Tanzania, a study by Mdoe, Mfinanga, and Kanire (2024) explored how various forms of innovation affect the overall performance of SMEs in Tanzania. The study used the cross-sectional research design and random sampling to collect primary data from 162 SMEs in Mbeya. Data was analyzed using the Ordered Logistic Model. The results indicate that product innovation significantly boosts sales and customer satisfaction; process innovation enhances return on equity and product quality. On the other hand, marketing innovation drives sales growth and customer satisfaction while organizational innovation improving production quality and return on equity. These findings imply that innovation is crucial for improving SMEs' performance. Despite its relevance in the current study by showing how important being innovative is in terms of performance, this study focused on SMEs in general. In terms of geographical scope, the study was conducted in Tanzania. The current study however focused on the performance of small-scale agribusiness grain farmers in North-rift Kenya. This study focused broadly on SMEs without disaggregating by sector, thereby overlooking the unique characteristics and innovation dynamics of agribusiness enterprises. Small-scale grain farmers, unlike urban SMEs, operate within highly variable ecological, market, and institutional environments that shape both their innovation behavior and performance outcomes. This study highlighted the need for a targeted investigation

into how entrepreneurial innovation influences the performance of small-scale agribusiness grain farmers in North Rift, Kenya. Future research should disaggregate innovation effects by agribusiness sub-sector (e.g., grain, horticulture, livestock) to understand sector-specific innovation pathways and constraints.

While focusing on the performance of animal fed manufacturing SMEs in Kenya, Kiiru, Mukulu, and Ngatia (2023) explored how innovation affected performance. The primary data used were obtained through surveys. The target population was animal fed manufacturing SMEs and unit of analysis were Owners and directors. Structural equation modeling (SEM) was the analytical technique employed. The findings indicated that innovativeness has a positive and significant impact on company performance. According to the study's findings, innovative businesses perform better. This study confirmed the positive impact of innovativeness on performance, it did not disaggregate innovation into specific types (e.g., product, process), nor did it explore how these forms of innovation interact with the unique constraints and opportunities within the grain farming sector. The current study addressed this conceptual gap by examining entrepreneurial innovation in a more nuanced and context-sensitive manner, tailored to the realities of small-scale agribusiness grain farmers in North Rift, Kenya. Future studies should apply SEM to disaggregated innovation types in agribusiness to test structural relationships between innovation dimensions and performance outcomes.

The study by Nduati (2020) set out to examine the impact of strategic innovation on the efficiency and productivity of manufacturing firms. The study relied on secondary sources for its data, and its primary goals were to identify key concerns by reviewing relevant empirical literature. The study analysed empirical data extensively to find out how much of an impact strategic innovation has on the bottom lines of Kenyan manufacturing enterprises. The tactics used for innovation in products, processes, markets, and technology greatly impacted the performance of manufacturing enterprises. Research shows that major improvements in important measures of company performance are mostly attributable to the implementation of strategic innovation plans. Strategies for the market and new product development are two examples of these approaches. This study was based entirely on secondary data and literature review, which, although valuable for identifying broad trends, lacks the contextual depth and empirical specificity needed to understand innovation at the grassroots level. The current study addressed this methodological gap by collecting primary data directly from small-scale agribusiness grain farmers, thereby capturing lived experiences and real-time innovation practices. Future research should combine secondary and primary data to develop hybrid models that validate strategic innovation frameworks in grassroots agribusiness contexts.

METHODOLOGY

In this study, the positivism philosophy was adopted. Descriptive survey design was considered relevant for this study. There were 497,737 small-scale agribusiness grain farmers according to Kenya National Cereal and Produce Board Fertilizer subsidies distribution Programme 2023 in the region which comprises of six counties namely West Pokot, Elgeyo Marakwet, Baringo, Nandi, Uasin Gishu, and Trans Nzoia. The small-scale agribusiness grain farmers were targeted in this study because they held a large percentage in the agribusiness sector. The formula developed by Taro Yamane in 1967 was used to obtain a sample size of 400 small-scale agribusiness grain

farmers. Through the use of a stratified random sampling method, the selection of the four hundred small-scale agribusiness grain producers who were going to be included in this study was accomplished. The farmers were then categorized according to the different counties which formed the strata of the study. From the strata, the study then selected the small-scale agribusiness grain farmers randomly from the list until the desired sample size for each county was achieved. Formalized questionnaires served as the primary means of data collection for this investigation. The Likert scale was used in questions due to its ease of construction, response quantification and ranking of times for the purpose of identifying tendencies. The institution issued a letter of approval to the inquiry so that it could gather data. A research authorization was given to the study by the National Council of Science, Technology, and Innovation (NACOSTI), in addition to the research authorization letter. A random selection was used to pick respondents, and they were informed of the aims of the research. The questionnaires were sent out to the respondents once they had indicated that they were willing to take part in the study. The research assistants were not only present but also actively participated in the process of data gathering. A follow-up was carried out in order to ensure that all of the surveys were correctly filled out and returned in a timely way so that they could be analyzed. During the course of this investigation, both the validity and reliability of the research tools were examined. The validity of the instruments was established by taking into consideration the suggestions that were supplied. A method known as Cronbach Alpha was used in order to ascertain the reliability of the surveys via the utilization of SPSS. Cronbach's alpha value of 0.6 or above is considered to be a satisfactory measure of dependability. The research instruments had Cronbach reliability coefficient values of 0.742 and 0.855 leading to the conclusion that the instruments could be trusted. Following the completion of the data cleansing procedure, data was analyzed using SPSS version 24. Frequencies, standard deviations, and means were computed to provide a concise summary of the quantitative data. Both descriptive and inferential statistics were used to examine the quantitative data. The data that had been condensed using percentages, averages, and standard deviation was shown visually using pie charts, bar graphs, and frequency tables, which were part of the descriptive statistics. The approach of inferential analysis included both correlation and regression analysis. The following equation shows the results of the regression investigation, which utilized a basic linear regression:

$$Y' = A + \beta_1 X_1 + \varepsilon$$

RESULTS

Response Rate

The study's sample size was 400 small-scale agribusiness grain producers from the North Rift area of Kenya. A response rate of 99.8 percent was therefore achieved. This response rate was considered appropriate and very effective for this study.

Descriptive Statistics

Entrepreneurial Innovation and Performance of Small-Scale Agribusiness Grain Farmers

Researchers in this study set out to quantify the impact that entrepreneurial innovation had on the output of North Rift, Kenya's small-scale agribusiness grain growers. The respondents were asked to rate how much they agreed or disagreed with certain assertions so that we might reach this goal. Table 1 reveals the results.

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Table 1: Descriptive Statistics on Entrepreneurial Innovation

Statement	SA	A	UD	D	SD	μ	σ
Adopting new ideas of marketing and sharing my agricultural products with the customers has improved my performance.	39.8%	56.1%	2.5%	1.0%	0.5%	1.689	.813
We receive training on how to incorporate new ideas for better yields in the agribusiness.	31.1%	53.1%	4.0%	7.3%	4.5%	2.01	1.024
I have redesigned the agricultural process in my business in order to reduce the input cost and increase returns.	32.8%	54.1%	8.3%	3.5%	1.3%	1.85	.789
Introducing new products in my small agribusiness has improved my performance.	36.1%	52.9%	6.3%	3.0%	1.8%	1.81	.817
Overall, entrepreneurial innovation has boosted the performance of my agribusiness.	30.8%	50.4%	7.8%	6.0%	5.0%	2.04	1.038
Average						**1.88**	**0.896**

On the questions pertaining to entrepreneurial innovation, the average mean score was 1.88, and the standard deviation was 0.896. This information may be seen in Table 4.1. This indicates that the majority of those who participated in the poll had a favourable opinion on the remarks. Small agribusinesses have experienced an improvement in their performance as a result of the introduction of new products (52.9%, μ=1.81, σ=0.817), the redesign of their agricultural processes to reduce input costs and increase returns (54.1%, μ=1.85, σ=0.789), and the adoption of new marketing ideas and the sharing of their agricultural products with customers, which has been acknowledged by 56.1% of respondents as having improved their performance (56.1%, μ=1.689, σ.=0.813). In order to enhance agricultural productivity, participants received additional instruction on how to execute new ideas, which accounted for 53.1% of the total (μ=2.01, σ.=1.024). In addition to that, more than thirty percent of the sample completely agreed with these statements.

A wide overview reveals that fifty-four percent of respondents believed that entrepreneurial innovation had contributed to the success of their organization. Furthermore, thirty-nine-point eight percent of individuals who participated in the study had the same sentiment. Nevertheless, a minuscule proportion, namely eleven percent, was adamantly opposed to the idea and disagreed with it. It seems that the majority of respondents gave the statement a mean score of 2.04, indicating that they agreed with it. The outcomes of the study are supported by research conducted by authors such as Ali, Khalid, and Bashir (2021). This research demonstrates how novel marketing strategies, such as direct consumer engagement and digital marketing platforms, have significantly increased sales and profitability for small-scale farmers. Additionally, Kilelu, Klerkx,

& Leeuwis (2020) found that training programs focused on new agricultural technologies and practices were critical in improving productivity and sustainability in small-scale farming.

Regarding the redesigning of agricultural processes, Mwangi and Kariuki (2019) indicated that process innovations, including improved planting techniques and resource management strategies, are crucial for enhancing the economic performance of small-scale agribusinesses. In terms of introduction of new products, Studies such as those by Muriithi, Bett, and Ogola (2022) have shown that diversification through the introduction of new products helps small-scale farmers mitigate risks and tap into new market opportunities, thereby improving overall business performance.

Inferential Data Analysis

The study conducted further inferential analysis to analyze the interrelationships of the research variables.

Correlation

Correlation is often used to explore the relationship among a group of variables (Pallant, 2010), in turn helping in testing for multicollinearity. That the correlation values are not close to 1 or -1 is an indication that the factors are sufficiently different measures of separate variables (Farndale, Hope-Hailey & Kelliher, 2010). Table 2 shows the correlation between Entrepreneurial Innovation and performance was ($r=0.759$, $p<0.05$).

Table 2: Correlation

	Performance	Entrepreneurial Innovation
Performance	1	.759**
Entrepreneurial Innovation	.759**	1

Regression Analysis

Influence of Entrepreneurial Innovation on the Performance of Small-Scale Agribusiness Grain Farmers in North Rift, Kenya

The objective of this study was to examine the Influence of entrepreneurial innovation on the performance of small-scale agribusiness grain farmers in North Rift, Kenya. The hypothesis to test for this objective was:

H_{01}: There is no significant relationship between entrepreneurial innovation and the performance of small-scale agribusiness grain farmers in North Rift, Kenya

The regression results in table 3.3 shows the relationship between Entrepreneurial Innovation and the performance of small-scale agribusiness grain farmers in North Rift, Kenya was significant ($F=539.106$, p-value=0.000<0.05), with R^2 =0.576, the model implies that about 57.6% of performance of small-scale agribusiness grain farmers in North Rift, Kenya is explained by variation in Entrepreneurial Innovation. The model equation for the relationship between Entrepreneurial Innovation and performance of small-scale agribusiness grain farmers in North Rift, Kenya is therefore

$$Y=2.070+0.543\mathbf{X_1}$$

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Where Y is performance of small-scale agribusiness grain farmers in North Rift, Kenya and X_1 is Entrepreneurial Innovation. The path coefficient was positive and statistically significant (β=0.543, t=23.217, p=0.000<0.05) as shown in table 3.3 indicating that, for one unit increase in Entrepreneurial Innovation, performance of small-scale agribusiness grain farmers in North Rift, Kenya increases by 0.543 units. In this regard, H_1 was rejected. Expósito and Sanchis-Llopis (2019), Arif and Akram (2018), and Abdilahi, Hassan, and Muhumed (2017) are just a few of the authors that have shown that entrepreneurial innovation has a noticeable and positive effect on company success.

Table 3: Regression Summary of Entrepreneurial Innovation on Performance

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.759[a]	0.576	0.575	0.32034

a. Predictors: (Constant), Entrepreneurial Innovation

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	55.314	1	55.314	539.016	.000[b]
	Residual	40.740	397	0.103		
	Total	**96.055**	**398**			

a. Dependent Variable: Performance
b. Predictors: (Constant), Entrepreneurial Innovation

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.070	0.104		19.830	0.000
	Entrepreneurial Innovation	0.543	0.023	0.759	23.217	0.000

a. Dependent Variable: Performance

Hypothesis Test Summary

Hypotheses testing was conducted using regression results. The acceptance or rejection criterion was based on P value. The H_0 was rejected when reported P value <0.05 and accepted when p value >0.05.

Table 4.21: Hypotheses Testing

No:	Hypothesis	B-Value	T Statistics (p value)	Results	Conclusion
$H0_1$	There is no significant relationship between entrepreneurial innovation and the performance of small-scale agribusiness grain farmers in North Rift, Kenya	0.543	23.217 (P<0.05)	Significant at 5% α level	Reject H_{01}

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SUMMARY, CONCLUSION AND RECOMMENDATIONS

Summary

The majority of respondents in North Rift, Kenya's small-scale agribusiness grain producers agreed that entrepreneurial innovation had a favorable effect on their performance. Notably, most reported performance improvements after implementing new marketing strategies and sharing their agricultural goods with clients. They also redesigned their agricultural processes to reduce costs and boost profits, received training on how to implement new ideas for better agribusiness yields, and introduced new products that enhanced enterprise performance. When asked if entrepreneurial innovation had improved their company's success, the majority responded affirmatively.

A favorable and statistically significant link was found between entrepreneurial innovation and success among small-scale agribusiness grain producers in North Rift, Kenya. Entrepreneurial innovation explained 57.6% of the variation in performance, and regression analysis showed that a one-unit increase in innovation was associated with a 0.543-unit improvement in performance. These findings align with global evidence, such as Fan et al. (2021), who found that innovation capacity significantly mediated the relationship between entrepreneurial orientation and SME performance in Pakistan. However, unlike Fan et al.'s study, which focused on digital adoption and innovation within urban SMEs, the current study isolates farmer-level innovation in a rural agribusiness context, highlighting how product, process, and idea-based innovations directly influence performance among smallholder grain farmers. This contrast underscores the importance of contextualizing innovation frameworks to reflect sector-specific and geographic realities.

Conclusion

This study set out to answer the primary question, "How did entrepreneurial innovation impact the performance of small-scale agribusiness grain producers in Kenya's North Rift?" by investigating this relationship through empirical analysis. The findings revealed a statistically significant and positive relationship between entrepreneurial innovation and the success of small-scale agricultural grain producers in the region. Specifically, the ability to adopt new ideas and implement novel agricultural products and techniques contributed to improved performance outcomes, including increased sales, market expansion, and operational efficiency.

However, the study is not without limitations. First, its regional focus on North Rift may limit the generalizability of findings to other agribusiness contexts in Kenya or Sub-Saharan Africa. Second, the reliance on self-reported survey data introduces potential biases, including social desirability and recall inaccuracies. Third, the cross-sectional design captures innovation-performance relationships at a single point in time, without accounting for long-term effects or seasonal variability. Future research should consider longitudinal approaches to track innovation adoption and performance trends over time. Additionally, comparative studies across different regions and agribusiness sub-sectors could help validate and refine the conceptual framework. Incorporating qualitative methods such as interviews or case studies may also enrich understanding of the lived experiences and contextual constraints that shape entrepreneurial innovation among smallholder farmers..

Recommendations

In most cases, it is up to the individual farmers to embrace and use new techniques and technologies on their farms. Therefore, the study recommended the adoption of modern agricultural technology by farmers. Such precision agriculture equipment, will boost production while cutting costs, thus it's important that they spearhead the effort.

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