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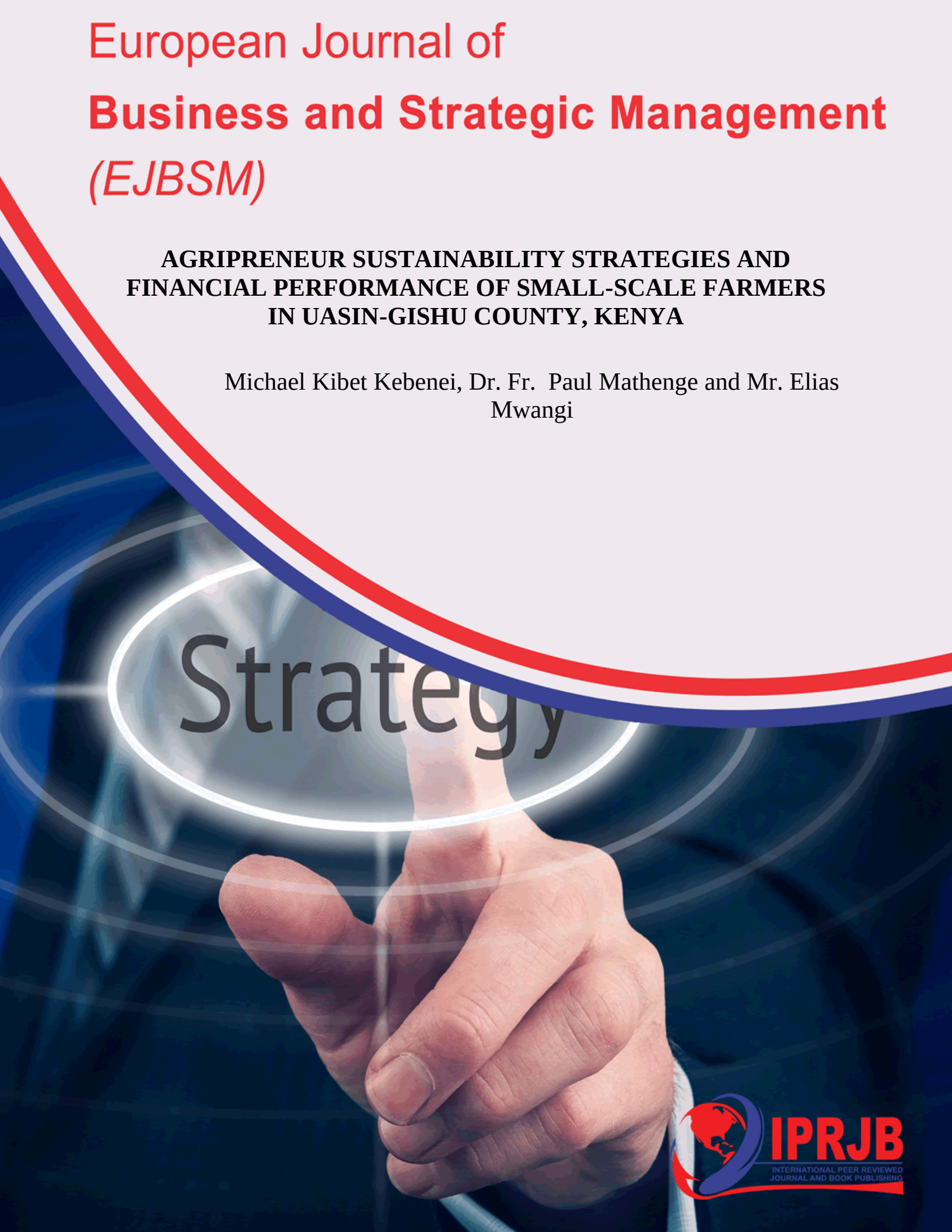
Michael Kibet Kebenei, Dr. Fr. Paul Mathenge and Mr. Elias Mwangi



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AGRIPRENEUR SUSTAINABILITY STRATEGIES AND FINANCIAL PERFORMANCE OF SMALL-SCALE FARMERS IN UASIN-GISHU COUNTY, KENYA

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Abstract

Purpose: The purpose of this study was to examine agripreneur sustainability strategies and financial performance of SMEs in Uasin Gishu County with a specific interest of small-scale farmers in Uasin Gishu County.

Materials and Methods: A descriptive survey research design was adopted in the study. The target population comprised of 1,397 small scale farmers in Uasin-Gishu County. A sample size of 140 respondents was selected using simple random sampling technique. Questionnaire was the key data collection instrument. The collected data was analyzed using quantitative and qualitative approaches of analysis. Statistical Package for Social Services version 21 was used to summarize the quantitative data into frequencies and percentages. The summarized information was presented using figures, tables and pie charts.

Results: From the analysis, the following key findings were made: there is a strong positive association between financial performance and innovation (r=.219*), pro-activeness (r=.505), risk taking (.256), and networking (r=.410). The coefficient of determination indicates that 32.7% of variation of financial performance is explained by agripreneurship sustainability strategies such as innovation, pro-activeness, risk-taking and networking. It is concluded that innovation, pro-activeness, risk-taking and networking affect the financial performance of Small scale farmers in Uasin Gishu County.

Unique contribution to theory, practice and policy: The study recommends that there is a need for regular training opportunities to be provided to the small scale farmers. Organizations in the agricultural sector and government ministries should focus on training farmers on entrepreneurship as a sustainable course for the business growth. Education policies in the country need to be reviewed to integrate agripreneurship as a course and more resource provided to encourage it among students in learning institutions. There is also a need for agricultural seminars to be organized within the county for the small scale farmers. There is need for further research to be conducted to assess the other factors that may be affecting the financial performance of small scale farmers.

Key words: *Agripreneur, Sustainability Strategies, Financial Performance*

1.0 INTRODUCTION

Climate change is an issue which is being experienced all over the world and it has a climate emergency such as the melting glaciers, rising sea levels and extreme weather conditions. At the same time, it needs to be noted that amidst the climate emergency, there are projections that the global human population will rise to 9.8 billion by 2050 with food demand projected to increase by more than 50% and demand for animal-based foods by nearly 70% (Searchinger, *et al*., 2018). With such estimates, there is need for agricultural practices to be enhanced so as to meet the food demand of the increasing population.

An improvement from ordinary farming to Agripreneurship through small and medium enterprises (SMEs) value addition is an essential pathway to revitalize agriculture and to make it more attractive and profitable venture. Agripreneurship has the potential to contribute to a range of social and economic development such as employment generation, income generation, poverty reduction and improvements in nutrition, health, and overall food security in the national economy (Bairwa, Kalia, Meena, & Larka, 2014). Notably, a lot of farmers and especially those in the SMEs are considered to leave farming once they get an opportunity to venture in other jobs outside agriculture. This calls for innovativeness in the agricultural sector through employment creation in and out of the sector (Danish Agriculture and Food Council, & Agriterra, 2019). There is need for sustainable measures to be undertaken in order for the small and medium enterprises to continue thriving in an environment where large companies take a larger with only a small portion being left for the SMEs. This study, therefore, focused on agripreneur sustainability strategies and its effects on financial performance among SMEs.

Globally, the wastage of agricultural products after harvesting is a major issue. This contributes to a lot of losses in the economy. For instance, in the United States of America, it is estimated that approximately 31 million MT of food is wasted each year after it has been harvested. That waste accounts for almost 14 percent of the solid waste dumped into landfills each year. The wasted food throws away the money spent growing, harvesting, transporting, and costs additional utilities. By some accounts, the value of the food thrown away amounts to over a billion tons of food and $940 billion in economic losses annually (Environment Protection Agency (EPA), 2017). Through estimates, enough food is lost during the post-harvest phase to significantly impact world hunger, and so reducing it is not just important economically, but it can also save lives. Many improvements have been made against post-harvest losses, both in vulnerable countries around the world and in the United States but continued technological and social changes will need to take place to bring the numbers down even more.

Within the African continent, farmers are investing in entrepreneurial activities for the sake of sustaining their agricultural businesses. Moreover, agriculture is considered a critical factor in the development and sustainability of many African states' economy (Copa – Cogeca, 2018). However, this is still faced with a lot of challenges and some of the questions that arise among various stakeholders in the sector include 'what is the role of governments?', 'how can private enterprise help stimulate growth in the sector?', 'where should the focus be – smallholder farmers or large-scale commercial farmers?'

In Kenya, agriculture sector contributes 51% of Kenya's GDP (26 percent directly and 25 percent indirectly). It also accounts for 60% of employment and 65% of exports (World Bank,

2018). The sector is dominated by smallholder production on farms of between 0.2 and 3 hectares. The SMEs account for 78% of total agricultural production and 70% of commercial production (World Bank, 2015). The two main agricultural activities driving the GDP include horticulture and cash crops. However, the productivity is considered to be low and especially for cereals. Observably, since most of the poor people are the ones involved in agriculture, integrating agrepreneurship can help in poverty reduction.

1.1 Statement of the Problem

Agripreneurship is a union between agriculture and entrepreneurship. An agripreneur is a risk-taker, opportunist, initiator who deals with uncertainty in the agricultural business environment. The managerial, technical and innovative skills of entrepreneurship applied in the field of agriculture may yield positive results and well trained agripreneurs may become role models to all disheartened farmers. Agripreneurs have the ability to reduce agricultural burden, create employment opportunities, control rural-urban migration, increase national income and support industrial development. However, this is not the case among many small scale farmers. Some of them are even leaving the business to venture in other sectors totally outside agriculture once they get an opportunity. As a result, this study intended to examine whether the agripreneur sustainability strategies had any effect on the financial performance of small scale farmers.

Within the county, agricultural contribution is affected largely by low productivity. Surprisingly, increasing levels of off-farm employment has not been associated with low productivity but rather with continued low returns in the sector and limited incentives for increasing production and trade, especially in food crops. The majority of smallholders remain cut off from the benefit of economic growth story with little access to technological improvements, market access and inputs that enhance productivity, regardless of the input from the subsidy scheme programme which do not benefit poor farmers (URT, 2009). In order to address this issue, this study focused on the agripreneur sustainability strategies and its effects on the financial performance of small scale farmers.

Empirically, little or scanty literature has been done regarding agripreneurial sustainability strategies and financial performance of small scale farmers. Some of the studies have focused on various sectors and the agricultural sector has not been examined. Moreover, the studies have focused on entrepreneurial strategies in isolation without tying them with the entrepreneurs in the agricultural industry. Therefore, there was a need for this study to be carried out to fill in the empirical gap by providing new literature on how agripreneur sustainability strategies affect financial performance of small scale farmers in Uasin Gishu County, Kenya.

2.0 LITERATURE REVIEW

2.1 Theoretical Review

This study was based on Zahra and Covin's (1995) theory of Agrepreneurial orientation. These authors hold that firms with an Agrepreneurship can target premium market segments, charge high prices and "skim" the market ahead of competitors. They further indicate that such firms monitor market changes and respond quickly, thus capitalizing on emerging opportunities. The authors of this theory observed that innovation keeps such firms ahead of competitors, gaining

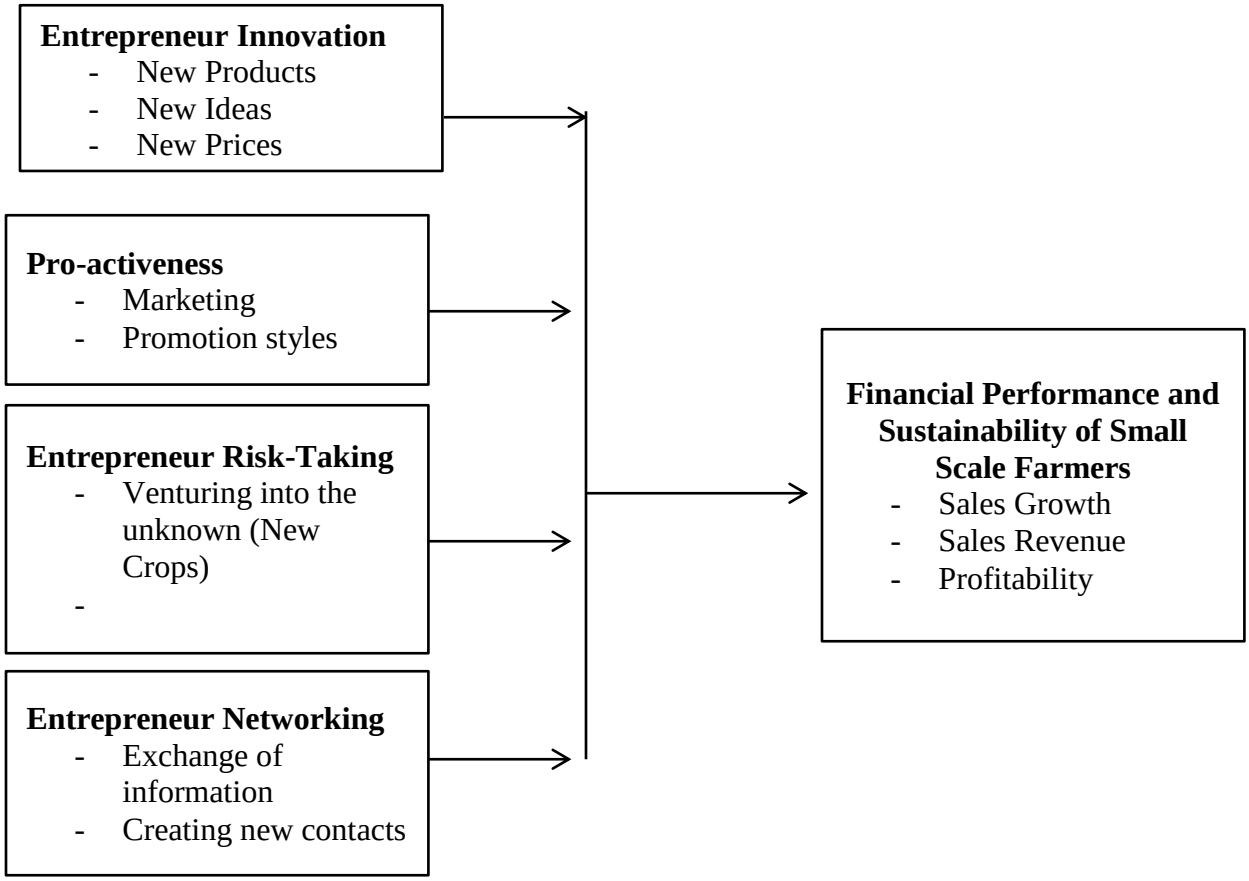
competitive advantage that leads to better financial results. Zahra & Covin (1995) indicate that firms with Entrepreneurship have an undue advantage of pro-activeness which gives them the ability to present new offers to the market ahead of competitors which gives them a competitive advantage. These authors affirmed that the relationship between entrepreneurship and performance is particularly strong among small firms. They emphasize that smallness of firms per section fosters flexibility and innovation but limits competitiveness in other strategic orientations. This component makes this theory relevant to this study as it provides the importance for examining the role that Entrepreneurship plays on performance of small firms (Small and Medium Enterprises); which are the focus of this study.

Zahra and Covin's (1995) further observe that although the relationship between Entrepreneurship and firm performance may be more complex than previously assumed, the relationship may in particular be contingent upon the nature of the environment that the firm operates in. These authors observe that Entrepreneurs may be a better predictor of performance for firms in hostile than benign environments. They hold that the fit between Entrepreneur and environment and not Entrepreneur per section is what promotes performance and that firms in growing industries may perform better than other firms regardless of their Entrepreneurship. Hence, these authors suggest that environment may influence small firm performance directly or moderate the relationship between Entrepreneurs and performance. Some scholars have however provided a critique of this theory. Storey (2009) observed that Zahra & Covin's (1995) theory does not take cognizance of the fact that more variables (other than those that define the dimensions of Entrepreneurship) may still influence the performance of small firms. Storey (1994) mentioned that a relatively consistent finding is that capital availability may also affect firm performance.

2.2 Conceptual Framework

Figure 1 below presents the interrelationship of the variables that was used in the study. The dependent variable is the financial performance small scale farmers, and the independent variables are innovativeness, pro-activeness, risk taking, and networking. Innovativeness is the firm's ability and willingness to support creativity, new ideas and experimentation which may result in new products/services while pro-activeness is the pursuit of opportunities and competitive rivalry in anticipation of future demand. Relating to risk-taking, the firm knowingly devotes resources to projects with a chance of high returns. The dependent variable was the ultimate financial performance of Agripreneurs. Firm financial performance is determined by increase in sales, profits and growth in capital.

Figure 1: Conceptual Framework



Independent Variables **Dependent Variables**

2.3 Empirical Review

Chen (2017) carried out a secondary research study to examine the relationship between innovation and performance of firms. The study was based on review of literature. According to literature reviewed, innovation was generally regarded as a key factor affecting firm performance. Many companies try their best to achieve higher profits through innovation in different ways. However, the literature showed that the impact of innovation on firm performance is different among many innovative firms. The article reviewed the related literature from three aspects that is the direct impact of innovation on enterprise performance, the moderating effect of innovation on firm performance, and the mediating effects between innovation and firm performance.

Wambugu et al. (2015) carried out a research study whose objective was to establish the influence of pro-activeness on the firm performance of agro processing small and medium enterprises in Kenya. Data was gathered from 111 agro-processing SMEs who were registered members of Kenya Association of Manufacturers. Structural Equation Modeling partial least

squares (PLS) approach using PLS algorithms and bootstrapping algorithms in Smart PLS 2.0 was used. Data analysis was conducted in two phases, measurement outer model estimation and structural, inner model estimation. The findings revealed that pro-activeness was a significant predictor of firm performance of agro-processing SMEs in Kenya.

Olarian, Namusonge, and Muturi (2016) examined the role of risk-taking on performance of firms on the Nigerian Stock Exchange. The target population included 176 firms listed in the Nigerian Stock Exchange with financial returns as at August, 2014. Out of the population, a sample of 60 firms was taken. Methods of statistical analyses include mean, standard deviation, and Pooled, Random and Fixed regression models based on the preferences suggested by the Hausman specification test results. The results of panel analysis of the relationship between Entrepreneurial Orientation dimension – risk-taking, and performance of firms listed on Nigerian Stock Exchange, with returns on assets and returns on equity as proxy showed a negative relationship between risk-taking and returns on assets and risk-taking and returns on equity. Risk taking was found to have negative relationships with both returns on assets and returns on equity. The implication of this study result is that, in Nigeria, entrepreneurial orientation dimensions such as risk-taking has been widely adopted and practiced, but it was yet to relate to ROA and ROE positively.

According to Tehseen and Sajilan (2016), SMEs lack essential resources such as capital, competencies, technology, relevant knowledge and information that is required among businesses in order to be successful. As a result, the businesses are forced to develop and execute different strategies to attain superior business performances. The strategic decisions assist the managers to predict changes in the external business environment and the effective strategies enable them to access and use critical resources in order to attain competitive advantage (Salamzadeh et al., 2016). To be more specific, strategies on knowledge management are considered to have a positive impact on the performance of organizations and networks (Centobelli et al., 2018). This is because current and updated knowledge is critical for the success of any business. Thus, firms keep on striving for developing close relationships with other parties to minimize the uncertainties by mutually joining and increasing their resources' levels including knowledge resources as well (Salamzadeh et al., 2016).

3.0 METHODOLOGY

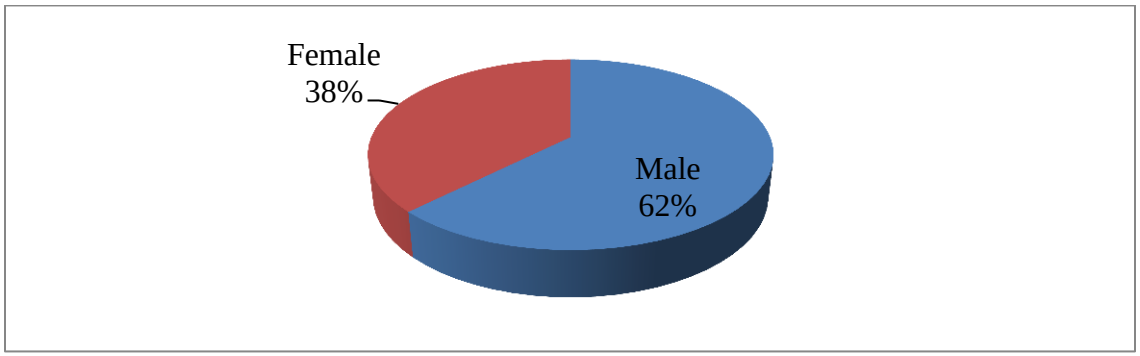
A descriptive survey research design was adopted in the study. The target population comprised of 1,397 small scale farmers in Uasin-Gishu County. A sample size of 140 respondents was selected using simple random sampling technique. Questionnaire was the key data collection instrument. The collected data was analyzed using quantitative and qualitative approaches of analysis. Statistical Package for Social Services version 21 was used to summarize the quantitative data into frequencies and percentages. The summarized information was presented using figures, tables and pie charts.

4.0 RESULTS

4.1 Demographic Data of Respondents

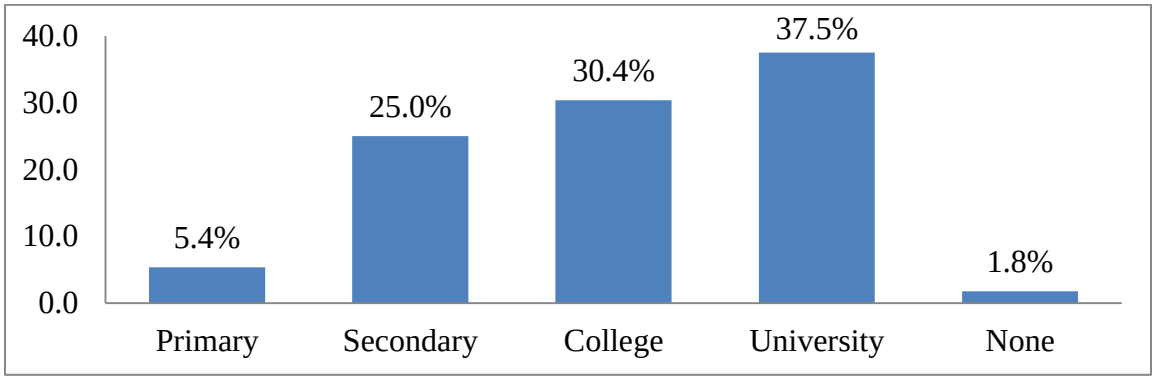
The respondents were asked to indicate their background information. This included the gender, education level, and working experience. The responses are as captured in this section.

Figure 1: Gender



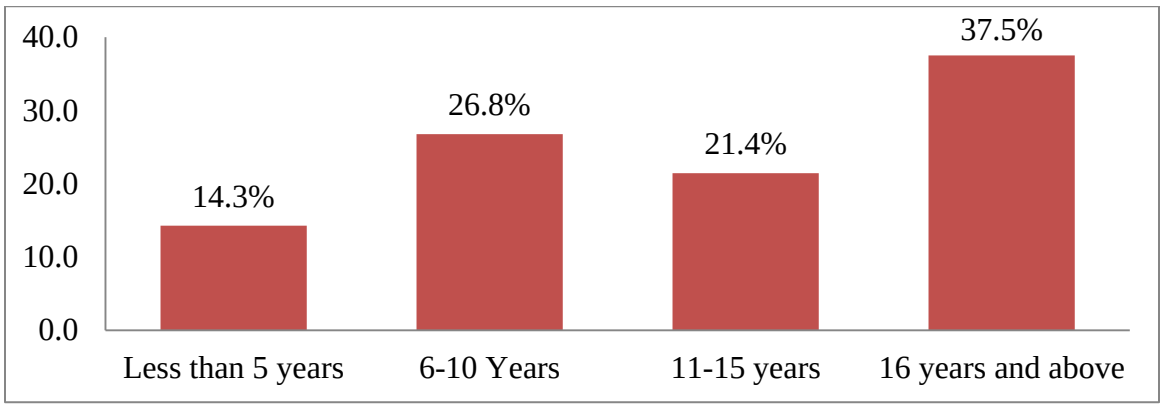
In terms of gender, 62% of the respondents were male. The remaining 38% were female. This implies that there are more male agripreneurs compared to women.

Figure 2: Education Level



When asked to indicate their education level, slightly more than a third of the respondents had a university level of education followed by college (30.4%). A quarter (25%) had only attained secondary education whereas 5.4% had a primary level of education. The remaining 1.8% had not gone to school. This shows that quite a good number of the respondents had attained a certain level of education.

Figure 3: Working Experience

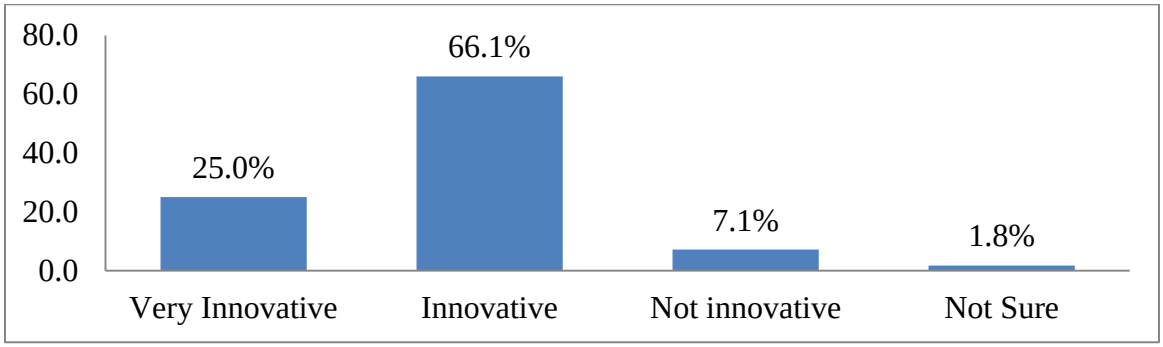


In terms of working experience, 37.5% of the respondents had worked for 16 years and above as small scale farmers. Slightly more than a quarter (26.8%) had worked for 6 to 10 years whereas 21.4% had worked for 11 to 15 years. The remaining 14.3% had worked for less than 5 years.

4.2 Inovation and Financial Performance of Small Scale Farmers

This study sought to determine the effects of innovation and financial performance of small scale farmers in Uasin Gishu County. To answer this objective, the respondents were first asked to rate their level of innovativeness.

Figure 4: Level of Innovativeness



Majority (66.1%) of the respondents indicated that they were innovative. This was further supported by a quarter (25%) of the respondents who indicated that they were very innovative. A few (7.1%) were however found to be not effective whereas the remaining 1.8% were not sure. Additionally, the respondents were given a number of statements on innovativeness and asked to indicate their extent of agreement or disagreement. The responses given are as presented in Table 1.

Table 1: Inovation and Financial Performance of Small Scale Farmers

	Statement	SA	A	UD	D	SD
a.	We use new technologies in the production and farming process.	42.9%	48.2%	3.6%	5.4%	0
b.	I have adopted new ways of marketing and sharing my agricultural products with the customers.	33.9%	44.6%	17.9%	3.6%	0
c.	We receive training no how to incorporate new ideas for better yields in the farm.	37.5%	41.1%	8.9%	7.1%	5.4%
d.	I have redesigned the agricultural process in my business in order to reduce the input cost and increase the returns.	39.3%	46.4%	10.7%	3.6%	0
e.	We manage to cope with market demands and develop new products in order to meet the market demand.	30.4%	48.2%	7.1%	14.3%	0

Key: SA- Strongly Agree, A-Agree, UD-Undecided, D-Disagree, SD- Strongly Disagree

When asked to indicate whether they use new technologies in the production and farming process, 42.9% of the respondents strongly agreed and 48.2% agreed. On the other hand, 5.4% of the respondents disagreed whereas the remaining 3.6% were undecided. This shows that most of the small scale farmers are using new technologies in their farms.

Whereas 44.6% of the respondents agreed that they have adopted new ways of marketing and sharing their agricultural products with the customers, 33.9% strongly agreed. The remaining 17.9% and 3.6% were either undecided or disagreed with the statement respectively.

Majority (78.6%) of the respondents were positive by strongly agreeing and agreeing that they receive training on how to incorporate new ideas for better yields in the farm. A few (8.9%) were undecided whereas the remaining 12.5% were negative to the statement by disagreeing and strongly disagreeing respectively.

In terms of redesigning the agricultural process, 46.4% of the respondents strongly agreed and 39.3% agreed that they have redesigned the agricultural process in their business in order to reduce the input cost and increase the returns. The remaining 10.7% were undecided whereas 3.6% disagreed.

When asked to indicate whether they manage to cope with market demands and develop new products in order to meet the market demand, 48.2% agreed and 30.4% strongly agreed. On the other hand, 14.3% of the respondents disagreed and the remaining 7.1% were undecided.

The respondents also gave their responses concerning the effects of innovation on the financial performance of the small scale farmers. Some of the effects that were suggested included improved profits, and reduced cost of operation. In fact one of the respondents indicated that:

> Innovation can lead to reduction in production cost. With innovation i have been in a position of providing high quality products, selling them at high prices and in high

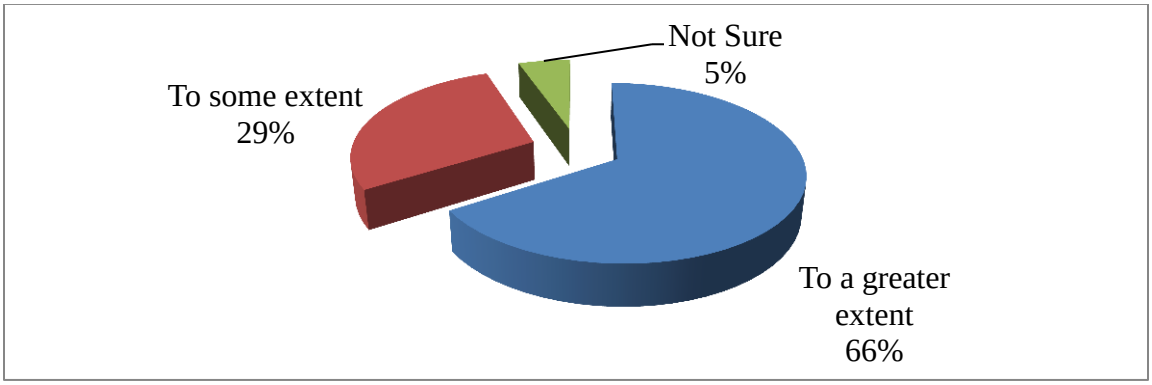
> volumes. In the long run, this has helped to increase revenue, reduced cost hence increased turnover. (Respondent 50, 2021).

Another respondent reported that:

> With innovation I keep my business in operational by providing services and products relevant to my customers' needs and provision of quality goods hence financial performance of the business. (Respondent 15, 2021).

Lastly, the respondents were asked to indicate the extent to which innovativeness affect their financial performance as a small scale farmer. The response given is as shown in Figure 5:

Figure 1: Extent to Which Innovativeness Affects the Financial Performance of Farmers

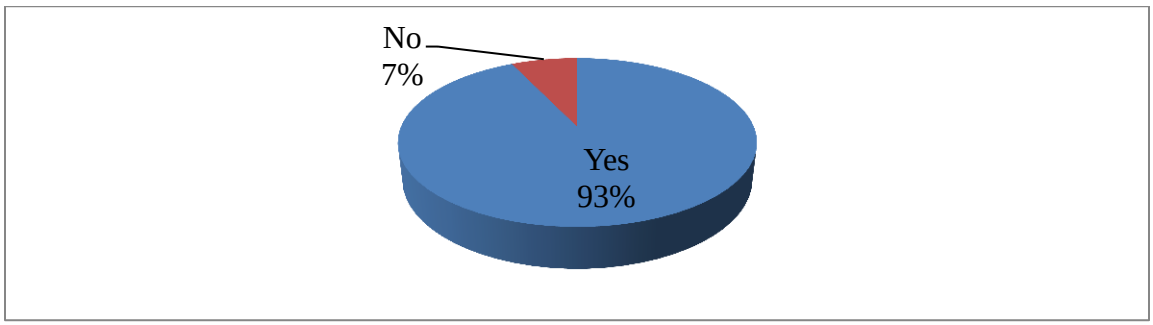


As shown in Figure 5, two third (66%) of the respondents indicated that innovativeness affected their financial performance to a greater extent. This was further supported by 29% who indicated to some extent. The remaining 5% were not sure. In line with these findings, a study by Chen (2017) showed that innovation had a key influence on the financial performance of firms. Additionally, Njogu (2014) was also able to note that there was a huge connection between innovation, market development and financial performance of SMEs. In further supporting the findings of this study, Sawang et al. (2011) in their study entitled effects of innovations on SMEs using the balanced approach concluded that innovation aspects influence performance of the business.

4.3 Pro-activeness and Financial Performance of Small Scale Farmers

The researcher further explored the relationship between pro-activeness and financial performance of small scale farmers in Uasin Gishu County. The respondents were asked several questions which were directed towards answering this objective. They were first asked to indicate whether they are action oriented (see Figure 6).

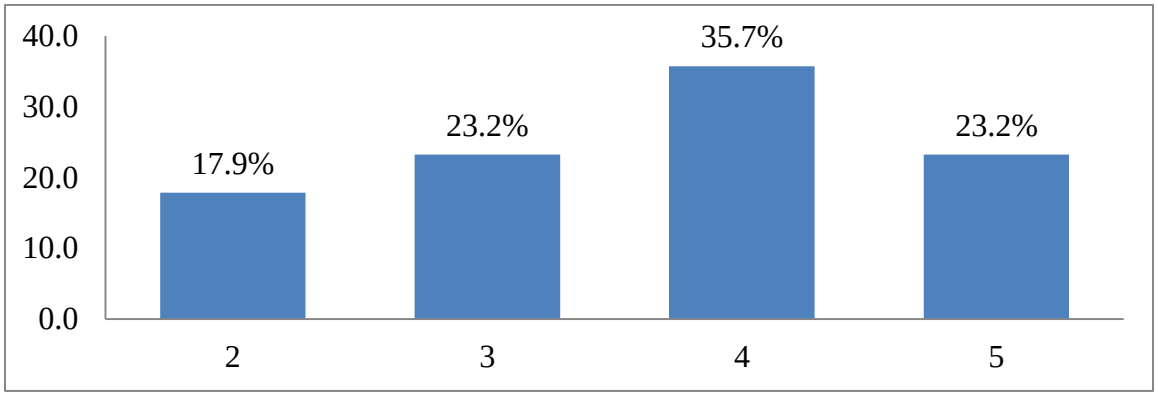
Figure 6: Whether the Small Scale Farmers are Action Oriented



As shown in Figure 6, an overwhelming majority (93%) of the respondents indicated that they were action oriented in their business. The remaining 7% were not action-oriented in their businesses.

Further, the respondents were asked to rate the level of pro-activeness in the business. The ratings were based on a scale of 1 to 5 with one being the lowest and 5 very proactive. The responses are as shown in figure 7.

Figure 7: Level of Pro-Activeness in the Business, With One Being Lowest and 5 Being Very Pro-Active



In terms of pro-activeness level, it is evident that most of the respondents are proactive. This is whereby 35.7% and 23.2% had high scores of 4 and 5. Additionally, 23.2% rated their level of pro-activeness to be 3. The remaining 17.9% had their rating at 2.

The respondents were further given a number of statements on pro-activeness and financial performance of the business. They were asked to indicate their extent of agreement or disagreement. Table 3 shows the response given.

Table 2: Pro-activeness and Financial Performance of Small Scale Farmers

	Statement	SA	A	UD	D	SD
a.	I strive to satisfy the needs of my customers through my agricultural products.	51.8%	41.1%	5.4%	1.8%	0
b.	I take prior action to solving farming problems	30.4%	57.1%	3.6%	8.9%	0

c.	We continuously modify our products and rapidly enter new emerging markets.	23.2%	57.1%	12.5%	7.1%	0
d.	By being proactive, I have been able to shape the orientation of my agricultural business.	33.9%	55.9%	7.1%	1.8%	1.8%
e.	I have done a lot of internal changes and restructured my business for the purpose of increasing its growth.	23.2%	53.6%	12.5%	10.7%	0

Key: SA- Strongly Agree, A-Agree, UD-Undecided, D-Disagree, SD- Strongly Disagree

When asked to indicate whether they strive to satisfy the needs of their customers through agricultural products, 51.8% strongly agreed and 41.1% agreed respectively. A few (1.8%) disagreed whereas the remaining 5.4% were undecided.

On whether they take prior action to solving farming problems, slightly more than half (57.1%) of the respondents agreed and 30.4% strongly agreed. A few (3.6%) were undecided whereas the remaining 8.9% disagreed respectively. This shows that most of the small scale farmers take prior actions to solving problems in their businesses.

Whereas 57.1% of the respondents agreed that they continuously modify their products and rapidly enter new emerging markets, 12.5% were undecided and 23.2% strongly agreed with the statement. The remaining 7.1% disagreed. This shows that as much as most of the small scale farmers are striving to come up with new products and entering new markets, there are still a few who have opted to remain behind.

A majority (89.8%) of the respondents were positive by strongly agreeing and agreeing that by being proactive, they have been able to shape the orientation of their agricultural business. Only a few (7.1%) were undecided and the remaining 3.6% were negative to the statement. this implies that most of the small scale farmers who participated in the study consider pro-activeness as essential in shaping the orientation of their businesses.

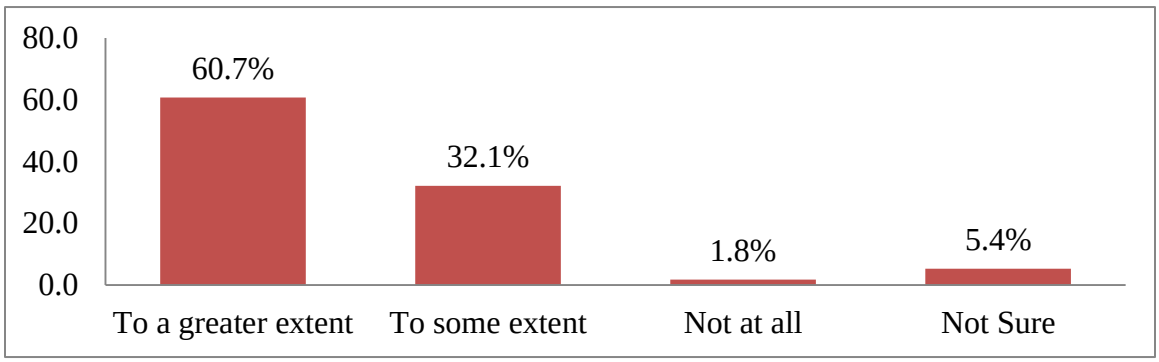
Slightly more than half (53.6%) of the small scale farmers agreed that they have done a lot of internal changes and restructured their business for the purpose of increasing its growth. This was further supported by 23.2% of the farmers who strongly agreed with the statement. A few (12.5%) were undecided and the remaining 10.7% disagreed.

Through open ended questions, the small scale farmers who participated in the study were also asked to add their comments on the effect of proactiveness on the financial performance of small scale farmers. The key effects that emerged from most of the respondents were improved profits, product quality, and production. In fact, one of the respondents commented that:

> By being action oriented, I have developed a clear business plan establishing who the business is and where it is heading to knowing how to finance the business and all the activities. (Respondent 5, 2021)

Lastly, the respondents were asked to indicate the extent to which pro-activeness affected the financial performance of their businesses (see Figure 4.8).

Figure 8: Extent to which Pro-Activeness Affect the Financial Performance of Small Scale Farmers

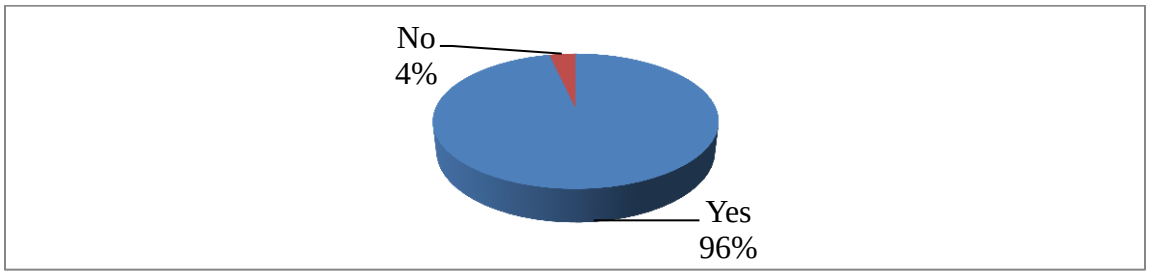


As shown in Figure 8, majority (60.7%) of the respondents indicated that pro-activeness affected the financial performance of their business to a greater extent. This was further supported by 32.1% who indicated to some extent. A few (5.4%) were not sure whereas the remaining 1.8% indicated that it had no effect at all. The findings of this study that pro-activeness affects the financial performance of SMEs has also been confirmed from previous studies. For instance, Wambugu et al. (2015) was able to show that pro-activeness was a significant predictor of firm performance of agro-processing SMEs in Kenya. Another study which supports the findings of this study is that by Ahimbisibwe and Abaho (2013) which showed that pro-activeness had a significant and positive influence on export performance.

4.4 Risk-taking and Financial Performance of Small Scale Farmers

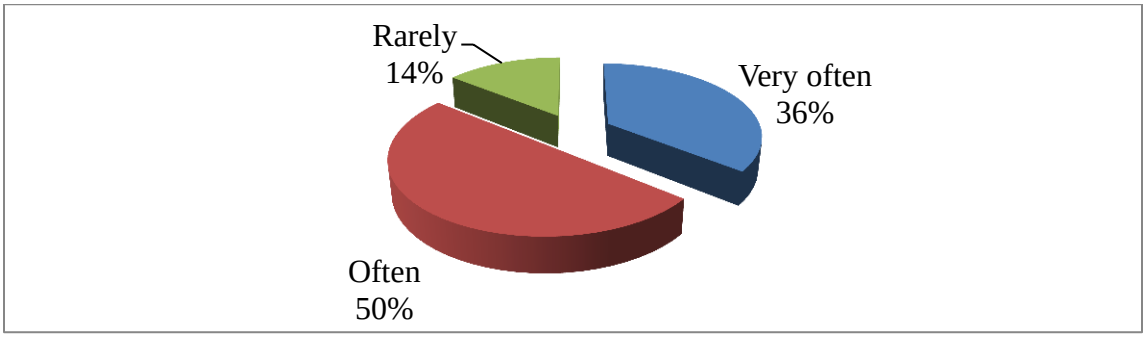
The study sought to establish the relationship between risk-taking and financial performance of small scale farmers in Uasin Gishu County. Just like the other objectives, several questions were provided to the respondents. They were first asked to indicate whether they take risks for their businesses (see Figure 9).

Figure 9: Whether Small Scale Farmers Take Risks in their Businesses



An overwhelming majority (96%) of the respondents indicated that they took risks in their businesses. Only a few (4%) did not take risk. This shows that most of the small scale farmers are risk takers. Secondly, the respondents were also asked to indicate how often they took risks for the growth of their business. The response is as shown in Figure 10.

Figure.10: How Often Risks are taken For the Growth of the Business



Half (50%) of the small scale farmers indicated that they often take risks for the growth of their business. This was further supported by 36% who indicated very often. However, a few (14%) indicated that they rarely take risks. This shows that as much majority of the respondents take risks, there are those few who may be a hesitant in taking risks and hence being occasional risk takers.Having established whether the respondents took risks and how often they did it, the respondents were given a number of statements on risk taking. They were required to indicate their extent of agreement or disagreement. Responses given are as summarized in Table 3.

Table 3: Risk Taking Among Small Scale Farmers

	Statement	SA	A	UD	D	SD
a.	Due to risk taking, I have been able to engage in numerous other activities relating to agriculture	46.4%	48.2%	3.6%	1.8%	0
b.	Risk taking has contributed to my business making a lot of losses.	17.9%	21.4%	8.9%	39.3%	12.5%
c.	Risk taking increases the probability of identifying new resources for my business venture.	35.7%	57.1%	5.4%	1.8%	0
d.	Through risk taking initiatives, I have been able to stumble into new ideas and ventures boosting the growth of agribusiness.	42.9%	53.6%	3.6%	0	0

Key: SA- Strongly Agree, A-Agree, UD-Undecided, D-Disagree, SD- Strongly Disagree

Whereas 46.4% of the respondents strongly agreed that due to risk taking, they have been able to engage in numerous other activities relating to agriculture, 48.2% agreed. A few (3.6%) were undecided whereas the remaining 1.8% disagreed. This shows that risk taking has enabled most of the small scale farmers to engage in other agricultural related activities.

Whereas 39.3% of the respondents were positive that risk taking has contributed to their business making a lot of losses, 39.3% disagreed. Additionally, 12.5% also strongly disagreed with the statement. The remaining 8.9% were undecided. The findings show that not all the small scale farmers consider risk taking as good for business due to the loses that they have made whereas considered it otherwise.

Slightly more than half (57.1%) of the respondents agreed that risk taking increases the probability of identifying new resources for their business venture. This was further supported by 35.7% who strongly agreed. A few (5.4%) were undecided on the matter and the remaining 1.8% disagreed. This shows that to most of the small scale farmers, risk taking has been resourceful for the business venture.

An overwhelming majority (96.5%) of the respondents were positive that through risk taking initiatives, they have been able to stumble into new ideas and ventures boosting the growth of agribusiness. The remaining 3.5% were undecided on the matter. This shows that most of the small scale farmers considered risk taking good for the creation of new ideas and boosting the growth of their business.

The small scale farmers also gave their comments regarding other effects of risk taking on the financial performance of their business. From the comments, the key emerging effect that was almost raised by all the respondents was increased business. Some reported that it encouraged diversification and hence increasing the number of products shared. It was also reported that it helped to build confidence, meeting business targets and development of new skills. One of the respondents reported that:

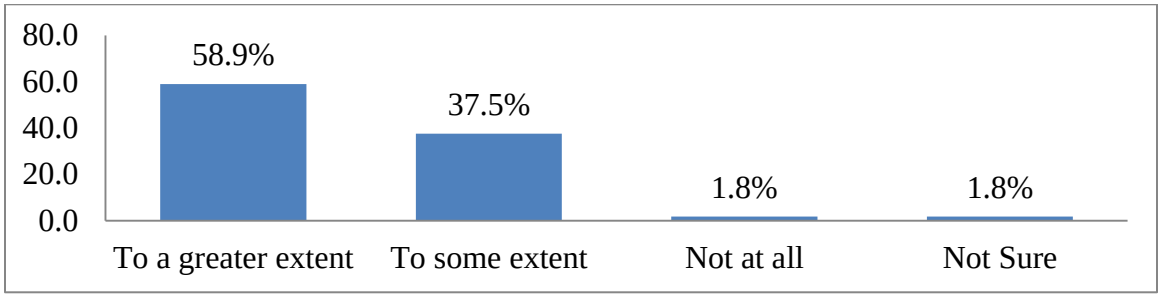
> Taking risks might affect the financial performance negatively or positively. In most instances the risk will involve expenses new to the business. Positive or negative performance depends on the outcome. (Respondent 25, 2021).

Another respondent also reported that:

> Through risk taking I have been able to venture into new ideas of improving my products quality resulting to more sales. Risk taking has also helped in how to plan and improve my strategic thinking. (Respondent 30, 2021)

Lastly, the respondents were asked to indicate the extent to which risk taking affected the financial performance of their businesses (see Figure 11).

Figure 11: Extent to Which Risk Taking Affect the Financial Performance of Small Scale Farmers



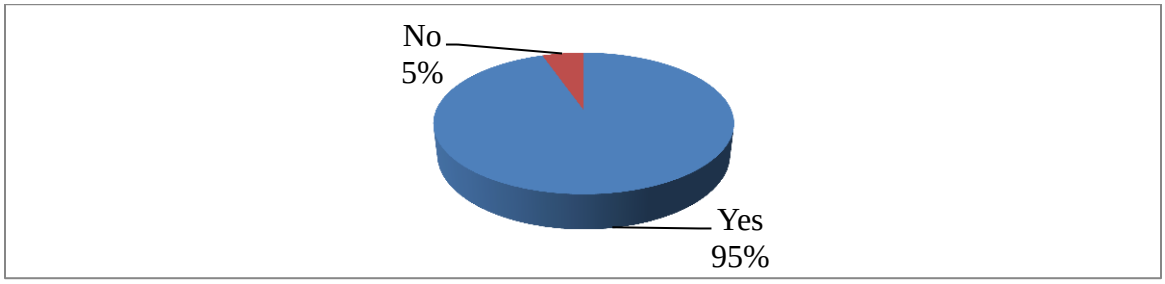
As shown in Figure 11, 58.9% of the respondents indicated that risk taking affected the financial performance of their businesses to a greater extent. This was further supported by 37.5% who indicated to some extent. The remaining (3.6%) were either not sure or indicated that it had no effect at all.

From the presentation of findings on risk taking, it is evident that risk taking affects the financial performance to a greater extent. This finding is in line with a previous study carried out by Wang and Poutziouris (2010) and Ahimbisibwe and Abaho (2013) which showed that organizations or firms that take risks are able to secure superior growth and long term profitability compared to those who tend to avoid risks.

4.5 Networking among Agripreneurs and Financial Performance of Small Scale Farmers

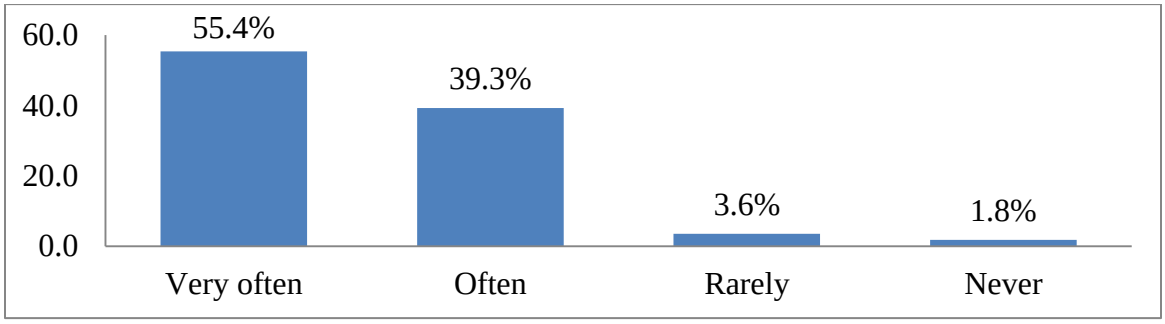
The study sought to identify the effect of networking among agripreneurs on the financial performance of small scale farmers in Uasin Gishu County. The respondents were asked to indicate whether they network with other farmers and businesses (Figure 12).

Figure 12: Whether the Small Scale Farmers Network with Other Farmers and Businesses in the Agricultural Sector



An overwhelming majority (95%) indicated that they networked with other farmers and businesses in the agricultural sector. Only a few (5%) did not network. Having established majority of the farmers networked, the researcher further intended to understand how often they did their networking practices (see Figure 13).

Figure 13: How Often Small Scale Farmers Network For the Purpose of Creating New Opportunities for their agricultural business



In terms of how often the small scale farmers networked, 55.4% indicated that they networked very often whereas 39.3% indicated often. A few (3.6%) rarely networked and the remaining 1.8% did not network. A number of statements were further given and the respondents were asked to indicate their extent of agreement or disagreement (Table 4).

Table 4: Networking and Financial Performance of Small Scale Farmers

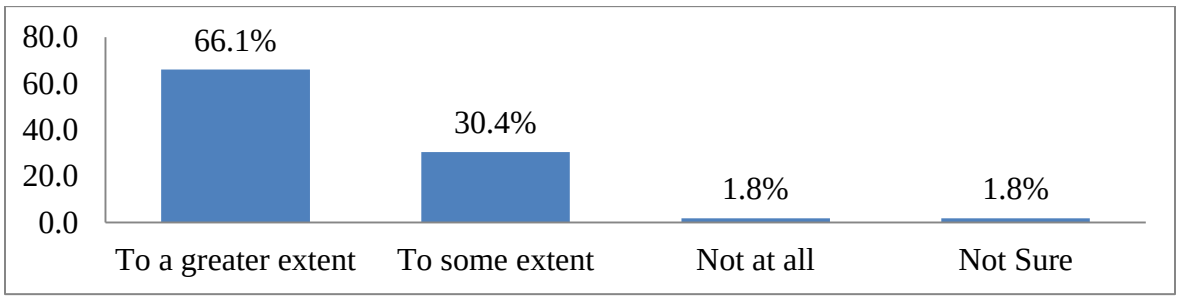
	Statement	SA	A	UD	D	SD
a.	Networking plays an important role in creating useful networks for advancing my agricultural business.	53.6%	42.9%	1.8%	0	1.8%
b.	Through networking, I have been able to gain more customers.	41.1%	51.8%	3.6%	3.6%	0
c.	Networking has boosted the overall growth of my business through new investments attracted.	46.4%	46.4%	5.4%	1.8%	0
d.	Networking has created an opportunity for me to gain new knowledge on how to improve my agricultural business.	62.5%	32.1%	3.6%	1.8%	0

Key: SA- Strongly Agree, A-Agree, UD-Undecided, D-Disagree, SD- Strongly Disagree

Slightly more than half (53.6%) of the respondents strongly agreed that networking plays an important role in creating useful networks for advancing their agricultural business. This was further supported by 42.9% who were in agreement. The remaining 1.8% were either undecided on strongly disagreed with the statement respectively. A good percentage (41.1% and 51.8%) of the respondents were positive by strongly agreeing and agreeing with the statement that through networking, they have been able to gain more customers. The remaining 3.6% were either undecided or disagreed with the statement respectively.

Whereas 46.4% of the respondents strongly agreed that networking has boosted the overall growth of their business through new investments attracted, 46.4% agreed. A few (5.4%) were undecided and the remaining 1.8% disagreed with the statement. A majority (62.5%) of the respondents strongly agreed to the statement that networking has created an opportunity for them to gain new knowledge on how to improve their agricultural business. This was further supported by 32.1% of the respondents who agreed with the statement. A few (3.6%) were undecided and the remaining 1.8% disagreed. Lastly, the respondents were asked to indicate the extent to which networking affected the financial performance of their agribusinesses. The responses given are as shown in Figure 14.

Figure 14: Extent to Which Networking Affect the Financial Performance of Small Scale Farmers



As shown in Figure 14, a majority (66.1%) of the respondents indicated that networking affected the financial performance of their business to a greater extent. This was further supported by

30.4% who indicated to some extent. The remaining 1.8% was either undecided or indicated that it had no effect at all. The findings of this study show that networking affect financial performance of SMEs to a greater extent. This concurs with previous conducted on the same. For instance, Tehseen et al. (2018) established that network competence had a positive impact on all four types of firms' performances among Chinese entrepreneurs. Another study by Kheng and Minai (2016) reported that the inability of SMEs' owners in establishing good relationships with relevant parties resulted in a lack of access to financial resources as well as required knowledge and information.

4.6 Inferential Analysis

Lastly, inferential analysis was conducted in order to test the relationship between the dependent and independent variables of the study. Both correlation and multiple linear regressions were conducted. The results are as presented in this section.

4.6.1 Correlation Results

In correlation analysis, a sample correlation coefficient is estimated. To be more specific, the Pearson Product Moment correlation coefficient is estimated. The sample correlation coefficient, denoted r, ranges between -1 and +1 and quantifies the direction and strength of the linear association between the two variables. It needs to be noted that the correlation between two variables can be positive (i.e., higher levels of one variable are associated with higher levels of the other) or negative (i.e., higher levels of one variable are associated with lower levels of the other). The sign of the correlation coefficient indicates the direction of the association. The magnitude of the correlation coefficient indicates the strength of the association. The results of the correlation analysis for the variables under investigation are presented in Table 5.

Table 5: Correlation Matrix Results

		Financial Performance	Innovation	Pro-activeness	Risk Taking	Networking
Financial Performance	Pearson Correlation	1				
	Sig. (2-tailed)					
	N	112				
Innovation	Pearson Correlation	.219*	1			
	Sig. (2-tailed)	.020				
	N	112	112			
Pro-activeness	Pearson Correlation	.505**	.519**	1		
	Sig. (2-tailed)	.000	.000			
	N	112	112	112		
Risk Taking	Pearson Correlation	.256**	.537**	.484**	1	
	Sig. (2-tailed)	.006	.000	.000		
	N	112	112	112	112	
Networking	Pearson Correlation	.410**	.519**	.415**	.513**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	112	112	112	112	112

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

As shown in the Table 5, there is a strong positive association between financial performance and innovation (r=.219*), pro-activeness (r=.505), risk taking (.256), and networking (r=.410). Moreover, it may also be noted that the variable with the highest level of association to the financial performance is pro-activeness followed by networking practices.

4.6.2 Regression Results

For the regression analysis, a simple linear regression was used as expressed by the following equation:

$$Y' = A + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

This model was used to test the relationship between agripreneurship sustainability strategies and financial performance of small scale farmers. The parameters for agripreneurship sustainability strategies include innovation (X1), pro-activeness (X2), risk-taking (X3) and networking (X5) and the response variable is financial performance (Y'). The results obtained are presented using the model summary, ANOVA and coefficients table.

Table 6: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.572[a]	.327	.302	2.05271

a. Predictors: (Constant), Networking, Pro-activeness, Risk Taking, Innovation

As shown by Table 6, R Square is .327 and R is .572 at 0.05 significance level. As such, the coefficient of determination indicates that 32.7% of variation of financial performance is explained by agripreneurship sustainability strategies such as innovation, pro-activeness, risk-taking and networking. The implication is that, there exists a positive significant relationship between agripreneurship sustainability strategies and financial performance of small scale frame.

Table 7: ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	219.107	4	54.777	13.000	.000[b]
	Residual	450.857	107	4.214		
	Total	669.964	111			

a. Dependent Variable: Financial Performance
b. Predictors: (Constant), Networking, Pro-activeness, Risk Taking, Innovation

The results presented in Table 7 on the ANOVA, indicate that the model was statistically significant in explaining the influence of the independent variables on the financial performance of small scale farmers in Uasin Gishu County since the P<0.000 which is less than 0.05 at 5% level of significance. Therefore, it can be concluded that innovation, pro-activeness, risk-taking and networking affect the financial performance of Small scale farmers in Uasin Gishu County.

Table 8: Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.493	1.162		.425	.672
	Innovation	.112	.067	-.173	-1.656	.101
	Pro-activeness	.452	.091	.485	4.977	.000
	Risk Taking	.054	.105	-.053	-.517	.606
	Networking	.262	.079	.326	3.299	.001

a. Dependent Variable: Financial Performance

As shown by the Table 8, the Beta value for Innovation (Beta=.112), Pro-activeness (Beta=.452), risk taking (Beta=.054) and networking (Beta=.262) are positively related to the financial performance of small scale farmers in Uasin Gishu County. With regards to their statistical significance, pro-activeness (t=4.977, p=.000) and networking (t=3.299, p=.001) is significant.

5.0 SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

Innovation and Financial Performance of Small Scale Farmers

Majority (66.1%) of the respondents indicated that they were innovative. This was further supported by a quarter (25%) of the respondents who indicated that they were very innovative. When asked to indicate whether they use new technologies in the production and farming process, 42.9% of the respondents strongly agreed and 48.2% agreed. Whereas 44.6% of the respondents agreed that they have adopted new ways of marketing and sharing their agricultural products with the customers, 33.9% strongly agreed.

Majority (78.6%) of the respondents were positive by strongly agreeing and agreeing that they receive training no how to incorporate new ideas for better yields in the farm. In terms of redesigning the agricultural process, 46.4% of the respondents strongly agreed and 39.3% agreed that they have redesigned the agricultural process in their business in order to reduce the input cost and increase the returns.

When asked to indicate whether they manage to cope with market demands and develop new products in order to meet the market demand, 48.2% agreed and 30.4% strongly agreed. Two third (66%) of the respondents indicated that innovativeness affected their financial performance to a greater extent. This was further supported by 29% who indicated to some extent.

Pro-activeness and Financial Performance of Small Scale Farmers

An overwhelming majority (93%) of the respondents indicated that they were action oriented in their business. In terms of pro-activeness level, it is evident that most of the respondents are proactive. This is whereby 35.7% and 23.2% had high scores of 4 and 5. Additionally, 23.2% rated their level of pro-activeness to be 3. The remaining 17.9% had their rating at 2.

When asked to indicate whether they strive to satisfy the needs of their customers through agricultural products, 51.8% strongly agreed and 41.1% agreed respectively. On whether they

take prior action to solving farming problems, slightly more than half (57.1%) of the respondents agreed and 30.4% strongly agreed. Whereas 57.1% of the respondents agreed that they continuously modify their products and rapidly enter new emerging markets, 12.5% were undecided and 23.2% strongly agreed with the statement.

A majority (89.8%) of the respondents were positive by strongly agreeing and agreeing that by being proactive, they have been able to shape the orientation of their agricultural business. Slightly more than half (53.6%) of the small scale farmers agreed that they have done a lot of internal changes and restructured their business for the purpose of increasing its growth. Majority (60.7%) of the respondents indicated that pro-activeness affected the financial performance of their business to a greater extent. This was further supported by 32.1% who indicated to some extent

Risk Taking and Financial Performance of Small Scale Farmers

An overwhelming majority (96%) of the respondents indicated that they took risks in their businesses. Half (50%) of the small scale farmers indicated that they often take risks for the growth of their business. This was further supported by 36% who indicated very often.

Whereas 46.4% of the respondents strongly agreed that due to risk taking, they have been able to engage in numerous other activities relating to agriculture, 48.2% agreed. Whereas 39.3% of the respondents were positive that risk taking has contributed to their business making a lot of losses, 39.3% disagreed. Slightly more than half (57.1%) of the respondents agreed that risk taking increases the probability of identifying new resources for their business venture. This was further supported by 35.7% who strongly agreed.

An overwhelming majority (96.5%) of the respondents were positive that through risk taking initiatives, they have been able to stumble into new ideas and ventures boosting the growth of agribusiness. 58.9% of the respondents indicated that risk taking affected the financial performance of their businesses to a greater extent. This was further supported by 37.5% who indicated to some extent.

Networking and Financial Performance of Small Scale Farmers

An overwhelming majority (95%) indicated that they networked with other farmers and businesses in the agricultural sector. In terms of how often the small scale farmers networked, 55.4% indicated that they networked very often whereas 39.3% indicated often.

Slightly more than half (53.6%) of the respondents strongly agreed that networking plays an important role in creating useful networks for advancing their agricultural business. This was further supported by 42.9% who were in agreement. A good percentage (41.1% and 51.8%) of the respondents were positive by strongly agreeing and agreeing with the statement that through networking, they have been able to gain more customers.

Whereas 46.4% of the respondents strongly agreed that networking has boosted the overall growth of their business through new investments attracted, 46.4% agreed. A majority (62.5%) of the respondents strongly agreed to the statement that networking has created an opportunity for them to gain new knowledge on how to improve their agricultural business. A majority

(66.1%) of the respondents indicated that networking affected the financial performance of their business to a greater extent. This was further supported by 30.4% who indicated to some extent.

Relationship between Agripreneur Sustainability Strategies and Financial Performance

From the correlation analysis, there is a strong positive association between financial performance and innovation (r=.219*), pro-activeness (r=.505), risk taking (.256), and networking (r=.410). The coefficient of determination indicates that 32.7% of variation of financial performance is explained by agripreneurship sustainability strategies such as innovation, pro-activeness, risk-taking and networking.

The ANOVA results indicate that the model was statistically significant in explaining the influence of the independent variables on the financial performance of small scale farmers in Uasin Gishu County since the P<0.000 which is less than 0.05 at 5% level of significance. Therefore, it can be concluded that innovation, pro-activeness, risk-taking and networking affect the financial performance of Small scale farmers in Uasin Gishu County.

The Beta value for Innovation (Beta=.112), Pro-activeness (Beta=.452), risk taking (Beta=.054) and networking (Beta=.262) are positively related to the financial performance of small scale farmers in Uasin Gishu County. With regards to their statistical significance, pro-activeness (t=4.977, p=.000) and networking (t=3.299, p=.001) is significant.

Conclusion

From the presentation of the analysis and summary of the findings, this study makes a number of conclusions. With regard to innovation, this study concludes that innovation has a positive influence on the financial performance of small scale farmers in Uasin Gishu. However, not all of the farmers are prompt in being innovative in coming up with new products but they use innovative approaches to do their farming. This has therefore contributed to improved farm yields. However, training is still an issue among a few farmers on coming up with new yields.

In terms of pro-activeness most of the farmers are pro-active in their agricultural business in Uasin Gishu County. This factor has been established as to have a more positive influence on the financial performance of the farmers compared to the other variables under investigation. Through pro-activeness, the small scale farmers are able to satisfy the needs of their customers, solve farming problems, engage in new emerging markets and shape the orientation of their agricultural business. As such, there are is an emerging need to encourage all the farmers to be more proactive in their agricultural business in the county.

This study also established there is a positive association between risk-taking and financial performance of small scale farmers in Uasin Gishu County. However, the level of association is minimal compared to pro-activeness and networking. It is evident that most take risks for the growth of their business. However, only a few do it often. Risk taking enables them to engage in different agricultural activities, identify new resources for the business, and stumble into new ideas and ventures boosting the growth of agribusiness.

The study concludes that networking among agripreneurs has a strong positive effect on the financial performance of small scale farmers in Uasin Gishu County. Through the networking practices, majority of the small scale farmers have been able to create useful networks for

advancing their agricultural business, increase the number of customers and made new investments that have boosted the overall growth of their businesses. Moreover, networking has enabled the small scale farmers in Uasin Gishu County to gain new knowledge that has been vital in improving their agricultural business.

Recommendations

The following recommendations are given; considering the importance of agripreneur sustainability strategies on financial performance, there is a need for regular training opportunities to be provided to the small scale farmers. This was noted where not all the respondents were able to attend trainings regularly. Therefore, organizations in the agricultural sector and government ministries should focus on training farmers on entrepreneurship as a sustainable course for the business growth.

Education policies in the country need to be reviewed to integrate agripreneurship as a course and more resource provided to encourage it among students in learning institutions. By incorporating it in the learning institutions, there are more farmers who will be released to the market area that have received professional training on integrating agriculture and entrepreneurship in the higher institutions of learning.

There is also a need for agricultural seminars to be organized within the county for the small scale farmers. Through these seminars, the farmers can be able to network more with other farmers and learn new technological techniques that help to increase agricultural production in the area.

There is also a need for financial aid to be provided to the small scale farmers to support the growth of their business. The financial aid should help to secure new equipment, grains and other extensional services that can help to increase the agricultural produces. Focus should also be paid on the grain value addition.

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