

## Research Application Summary

### **Effect of entrepreneurial behaviour on small scale potato farm performance: Evidence from Kenya**

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#### **Abstract**

Over the years, small scale potato farm enterprises have recorded low potato productivity and profitability. This poor performance could be attributed to poor entrepreneurial culture and skills, and low entrepreneurial behaviour portrayed by the small scale potato farmers. This paper models the effect of entrepreneurial behaviour on the performance of small scale potato farm enterprises in a high density potato producing area of the Central Rift Valley Region in Kenya. A structured questionnaire was used to collect data from 267 respondents using multistage sampling techniques. Principal component analysis was run to check the reliability and construct variability of entrepreneurial behaviour attributes. Seemingly unrelated regression model was used to analyse the effect of entrepreneurial behaviour on farm performance. The results indicate that age and farming experience influenced entrepreneurial behaviour of potato farmers; while age, education level, farming experience, credit access, training, group membership, and risk-taking had an impact on farm performance. It was concluded that risk-taking behaviour had an impact on small scale potato farm performance. The study recommended that entrepreneurial behaviour and farm performance are the important indicators for agriculture development in Kenya. Small scale potato farmers should develop entrepreneurial behaviour skills through participation in farmer group activities and interaction with extension officers to learn new agricultural practices and improve on their farm performance.

Key words: Agribusiness, entrepreneurial behaviour, farm enterprise, Kenya, potato farming

#### **Résumé**

Au fil des années, les petites entreprises agricoles de pommes de terre ont enregistré une faible productivité et rentabilité de la pomme de terre. Cette mauvaise performance pourrait être attribuée à une culture et à des compétences entrepreneuriales médiocres, ainsi qu'au faible comportement entrepreneurial des petits producteurs de pommes de terre. Cet article modélise l'effet du comportement entrepreneurial sur la performance des petites entreprises agricoles de pommes de terre dans une zone de production de pommes de terre à haute densité de la région de la vallée centrale du Rift au Kenya. Un questionnaire structuré a été utilisé pour recueillir des données auprès de 267 répondants à l'aide de techniques d'échantillonnage à plusieurs degrés. Une analyse en composantes principales a été effectuée pour vérifier la fiabilité et construire la variabilité des attributs du comportement entrepreneurial. Un modèle de régression apparemment sans rapport a été utilisé pour analyser l'effet du comportement entrepreneurial sur la performance agricole. Les résultats indiquent que l'âge et l'expérience agricole ont influencé le comportement entrepreneurial

des producteurs de pommes de terre ; tandis que l'âge, le niveau d'éducation, l'expérience agricole, l'accès au crédit, la formation, l'appartenance à un groupe et la prise de risques avaient un impact sur les performances de l'exploitation. Il a été conclu que les comportements à risque avaient un impact sur les performances des petites exploitations de pommes de terre. L'étude a recommandé que le comportement entrepreneurial et la performance des exploitations agricoles soient des indicateurs importants pour le développement de l'agriculture au Kenya. Les petits producteurs de pommes de terre devraient développer des compétences entrepreneuriales en participant à des activités de groupe d'agriculteurs et en interagissant avec des agents de vulgarisation pour apprendre de nouvelles pratiques agricoles et améliorer les performances de leur exploitation.

Mots clés : Agrobusiness, comportement entrepreneurial, entreprise agricole, Kenya, culture de la pomme de terre

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## Introduction

Entrepreneurship in agriculture can be viewed as a way of creating new farm enterprises. It provides self-employment, improves livelihood, and alleviates poverty amongst farmers in the rural areas (Tamminana and Mishra, 2017). Entrepreneurship can unlock agribusiness opportunities by promoting economic growth and development in Africa (Mudiwa, 2018). Entrepreneurial behaviour plays a significant role in entrepreneurship by transforming the mindset and compels potential farm entrepreneurs to improve their agribusiness enterprises in a competitive farm environment (Mukhtar *et al.*, 2018). Kontè *et al.* (2019) conceptualized entrepreneurial behaviour as the attitude, aptitude, and ability of small scale farmers to innovate and establish a new agribusiness venture within a particular farm environment. Kahan (2012) refers to entrepreneurial behaviour as inborn attitude motivating farm entrepreneurs to be more technically competent and innovative to thrive and survive since farm enterprises operate within a complex and dynamic environment.

Entrepreneurial behaviour is the key driver for economic growth and development of the potato industry in Kenya due to its potential to improve growth, increase wealth, and quality of life among small scale potato farmers. In Kenya, small scale farmers are the key persons for promoting economic growth and development since the potato is the second most consumed staple food crop after maize (Okello *et al.*, 2017). The potato industry contributes 1.9% to agricultural gross domestic product (Mwangi *et al.*, 2013) and serves as a primary source of income for 3.8 million farmers along the value chain (KEPHIS, 2019). The sector plays a significant role in promoting rural welfare and alleviating poverty by generating more opportunities for small scale farmers (Okello *et al.*, 2017). As such, the potato has become an important food and cash crop that contributes to food security, nutrition, employment, and development of the socio-economic status of the small scale potato farmers (Bezabih *et al.*, 2015). However, over the years, potato farm enterprises have remained unprofitable due to the poor entrepreneurial capacities of the farmers. The small scale potato farmers are unable to adopt new production techniques, try new seed varieties, and employ modern agricultural practices to achieve good yields and improve on marketing to increase performance. It has been revealed that the small scale potato farmers' inability to take production risks in trying new seed varieties, and making appropriate farm decisions to adopt good agricultural practices result in low potato yields. Consequently, the current potato yields in Kenya is below 10t/ha against a potential of 40t/ha making the farm enterprises unprofitable (NPCK, 2015). Majority of the previous research conducted focus on effect of socio-economic and institutional factors on performance of potato enterprises leading to a dearth of information on the effect of entrepreneurial behaviour on the performance of small scale potato farm enterprises in Central Rift Valley, Kenya.

## Methodology

This study was conducted in the Central Rift Valley, specifically in Nakuru County, Kenya, during June and August 2019. The County is a major potato producing zone in the Central Rift Valley and covers an area of 7,498.8 Km<sup>2</sup>. The County is the second-largest producer of potatoes in the country after Nyandarua (Government of Kenya, 2018). The study used a cross-sectional survey research design and a multistage sampling technique to sample 267 small scale potato farmers in the study area. A semi-structured questionnaire was used to elicit information from the respondents on face to face basis with the help of trained enumerators. Primary data were collected on the socio-economic factors, institutional factors, farm performance and entrepreneurial behaviour attributes where 5 points Likert scale was used to measure the entrepreneurial behaviour attributes. Descriptive statistics and econometric models were used to analyse the data collected from smallholder potato farmers. The entrepreneurial behaviour attributes produced a Cronbach alpha value of 0.837 which means that the data were reliable (Khalid, 2015). Confirmatory factor analysis was used on the entrepreneurial behaviour attributes where the result of KMO was 0.787 with Bartlett Test of sphericity of 1368.268, 78 and 0.000 indicating that the entrepreneurial behaviour attributes satisfied all the conditions for factor analysis (Sachitra and Chong, 2017; Kontè *et al.*, 2019). The seemingly unrelated regression (SUR) model was used to analyze the effect of entrepreneurial behaviour on the performance of small scale potato farm enterprises. The (SUR) method is more efficient than the ordinary least square (OLS) method when the error terms between the equations in the system are highly correlated (Heidari *et al.*, 2017; Mehrabani and Ullah, 2020) and produces the best linear unbiased estimates (BLUE) which would not have been possible for OLS. The SUR estimates for correlations in the error terms and allows different dependent variables to have different sets of independent variables (Heidari *et al.*, 2017). Zellner (1962) postulated that the SUR method estimates the parameter of all equations simultaneously and the parameters of each single equation take the information provided by the subsequent equations into account.

Seemingly unrelated regression equation is given as

$$y_i = X_i\beta_i + u_i \quad i = 1,2 \quad (1)$$

Where  $y_i$  and  $\mu_i$  are  $T \times 1$  and  $X_i$  is  $T \times K_i$  with  $\sim(0, \sigma_{ii} I_T)$ . Ordinary least squared (OLS) is best least unbiased estimates (BLUE) on equation separately. Zellner combined the SUR in one stacked model as

$$\begin{bmatrix} y_1 \\ y_2 \end{bmatrix} = \begin{bmatrix} X_1 & 0 \\ 0 & X_2 \end{bmatrix} \begin{bmatrix} \beta_1 \\ \beta_2 \end{bmatrix} + \begin{bmatrix} u_1 \\ u_2 \end{bmatrix} \quad (2)$$

Where  $y_1$  and  $y_2$  = dependent variables of the two equations,  $X_1$  and  $X_2$  = independent variables,  $\beta_1$  and  $\beta_2$  = coefficients,  $\mu_1$  and  $\mu_2$  = random error terms of the equation. To estimate the effect of entrepreneurial behaviour on the performance of small scale potato farm enterprises the following equations are given as:

$$\begin{aligned} \text{Entrepreneurial\_behaviour} = & \beta_{01} + \beta_{11} \text{ Age} + \beta_{21} \text{ Education} + \beta_{31} \text{ Farming experience} + \beta_{41} \text{ Loan} \\ & + \beta_{51} \text{ Training} + \beta_{61} \text{ Group\_membership} \end{aligned} \quad (3)$$

$$\begin{aligned} \text{Perfomance} = & \beta_{02} + \beta_{12} \text{ Age} + \beta_{22} \text{ Education} + \beta_{32} \text{ Farming experience} + \beta_{42} \text{ Loan} + \beta_{52} \text{ Training} + \beta_{62} \\ & \text{Group\_membership} + \beta_{72} \text{ Risk-taking} + \beta_{82} \text{ Proactiveness} + \beta_{92} \text{ Innovativeness} + \beta_{102} \text{ Information-} \\ & \text{seeking} + \beta_{112} \text{ Cosmopoliteness} + \beta_{122} \text{ Decision-making} \end{aligned} \quad (4)$$

**Table 1. Description and measurement of variables used in the Seemingly Unrelated Regression Model 1**

Variable	Description	Measurement	Sign
Dependent variables			
EB (Y1)	Pooled Entrepreneurial behaviour	Mean of EB attributes	
Independent variables			
Ag	Age	Years	+
Educ	Education level	Years in schools	+
Ex	Farming experience	Years in potato farm enterprises	+
Acr	Access to credit	1 if access credit, 0 otherwise	+/-
Aet	Access to training	1 if access training, 0 otherwise	+/-
Agm	Access to group membership	1 if member, 0 otherwise	+/-

**Table 2. Description and measurement of variables used in Seemingly Unrelated Regression Model 2**

Variable	Description	Measurement	Sign
Dependent variables			
Performance (Y2)	Gross profit	USD	
Independent variables			
Ag	Age	Years	+
Educ	Education level	Years in schools	+
Ex	Farming experience	Years in potato farm enterprises	+
Acr	Access to credit	1 if access credit, 0 otherwise	+/-
Aet	Access to training	1 if access training, 0 otherwise	+/-
Agm	Access to group membership	1 if member, 0 otherwise	+/-
Risk	Risk taking behaviour	Mean of risk taking attribute	+
Pro	Proactiveness behaviour	Mean of proactiveness attribute	+
Inn	Innovativeness behaviour	Mean of innovativeness attribute	+
Inf	Information seeking	Mean of information seeking behaviour attribute	+
Cos	Cosmopolitaness	Mean of cosmopolitaness attribute	+
Dec	Decision making	Mean of decision-making attribute	+

## Results and Discussion

Table 3 provides descriptive results of socio-economic characteristics of smallholder potato farmers.

**Table 3. Socio-economic characteristics of smallholder potato farmers in Central Rift Valley, Kenya (n=267)**

Variable	Mean	Standard Dev.	Minimum	Maximum
Age of respondent	43.48	13.76	20	75
Education level	9.08	2.95	0	16
Farming experience	10.20	8.64	1	42

The study revealed that the average age of small scale potato farmers was 43 years. This means that majority of the respondents were old. Potato farming is a labor intensive work that is not good for older farmers. Therefore, there is need for the youth to be supported through provision of entrepreneurial training and affordable credits to venture in potato farm enterprises. The average education level was 9 years. It shows that the farmers had at least basic education which could make them read and understand production and marketing information. It would help farmers to get more knowledge of production techniques leading to improvement of small scale potato enterprises. Most of the farmers had an average of 10 years in the potato farm enterprises. It indicates that most of the farmers had good experience in the potato farm enterprises. This result implies that smallholder farmers with good farming experience in potato farm enterprises have more knowledge about new production technologies and methods.

From Table 4, the results show that only 31% of small scale potato farmers interviewed had access credit from the banks meaning majority of the respondents do not access credit from banks to support their farm enterprises. Small scale farmers with access to credit sources were able to purchase farm inputs to support the enterprises. It was found that 39% of the respondents received entrepreneurial training in potato farming. Potato farmers who accessed training improved their farm enterprises because information received during the training sessions were employed in the farm enterprises and 37% of the respondents had a membership to farmer group. This means that small scale potato farmers who belonged to farmer groups had training, accessed credit, and purchase farm inputs collectively resulting in the improvement of their potato farm enterprises.

**Table 4. Distribution of institutional factors of small scale potato farmers in the Central Rift Valley, Kenya (n=267)**

Categorical variable	Frequency	Percent
Access to credit		
Yes	82	30.71
No	185	69.29
Access to training		
Yes	103	38.58
No	164	61.42
Group membership		
Yes	89	36.7
No	169	63.3

Table 5 presents the descriptive statistics of entrepreneurial behaviour attributes for small scale potato farmers in Central Rift Valley in Kenya.

**Table 5. Descriptive statistics of entrepreneurial behaviour attributes of smallholder potato farmers in Central Rift Valley, Kenya (n=267)**

Attribute	Mean	Standard deviation	Minimum	Maximum
Risk taking	2.35	1.16	1	5
Proactiveness	3.42	1.36	1	5
Innovativeness	2.88	1.60	1	5
Information seeking	3.50	1.63	1	5
Cosmpoliteness	2.95	1.42	1	5
Decision making	3.09	1.34	1	5
Pooled Entrepreneurial behaviour	3.03	0.87	1	5

The results in Table 5 show that the mean score of risk taking behaviour was 2.35 which means that most of the farmers were risk-takers. This implies that smallholder potato farmers take risks in trying new production techniques and technologies. This good entrepreneurial behaviour enables potato farmers in trying new agricultural production methods leading to the improvement of their farm productivity and profitability. The results concur with the findings of Ram *et al.* (2013) who pointed out that the majority of the vegetable growers had high risk-taking behaviour in India. Proactiveness has a mean score of 3.42, indicating that potato farmers were proactive in the farm enterprises. This means that most of the potato farmers identified market opportunities ahead of other farmers to introduce new potato varieties to meet market demand. This entrepreneurial behaviour enables farmers to produce different potato varieties for the consumer market. The result disagrees with Hajong (2014) who indicated that the majority of smallholder farmers in India possessed very low proactiveness behaviour. The mean score of innovativeness behaviour was 2.88. It means that potato farmers were innovators in potato farm enterprises. The results show that most of the farmers were innovative in using locally available materials to control weeds, pests, and diseases leading to a reduction in the cost of production. The result is in line with that of Mariammal and Seethalakshmi (2017), who found that the majority of dairy women farmers had high level of innovativeness behaviour in Tamil Nadu. Information seeking behaviour had a mean score of 3.50. This shows that smallholder potato farmers seek information from both informal and formal sources concerning potato farm enterprises. These good entrepreneurial behaviour skills led to more access to relevant information from agricultural extension officers resulting in high potato production. The findings agree with Boruah *et al.* (2015), who reported that most of the small scale farmers had high information-seeking behaviour in Jorhat district of Assam. Cosmopoliteness behaviour had a mean score of 2.95 which shows that potato farmers attended agricultural shows and field days outside their farm environment to improve their farm enterprises. As a result of this good entrepreneurial behaviour, small scale potato farmers joined famer groups to access information, get farm inputs at subsided prices and market potatoes collectively. The findings are not consistent with studies conducted by Mariammal and Seethalakshmi (2017), which indicated that dairy farmers possessed a low level of cosmopoliteness behaviour in Tamil Nadu. The mean score of decision-making behaviour was 3.09. This shows that potato farmers make informed decisions concerning the growing of the certified seeds in the potato farm enterprises.

Ability to make appropriate production decisions result in the use of high quality seeds that leads to high potato productivity and profitability. The findings concur with Boruah *et al.* (2015), who indicated that majority of vegetable producers' possessed good decision-making ability in Jorhat district of Assam.

**Table 6. Descriptive statistics of performance indicator for smallholder potato farmers in Central Rift Valley, Kenya (n=267)**

Performance indicator	Mean	Standard deviation	Minimum	Maximum
Total Revenue	2,101.48	1,367.63	570.00	9,000.00
Total Cost	934.99	746.03	105.00	5,739.00
Gross Profit	1,166.48	938.72	271.60	7,977.00

It is observed in Table 6 that the average total cost of production for an acre (0.4ha) of potato farm was USD 934 and total revenue was USD 2,101 with the gross profit earned from potato farm enterprise in the production year being USD 1,166. This indicates that potato farm enterprises are a profitable and viable farming business for youths and women in agribusiness to venture in for good returns.

**Table 7. Seemingly unrelated regression estimates for entrepreneur behaviour and performance for small scale potato farmers in the central Rift valley of Kenya (n=267)**

Variable	Entrepreneurial behaviour (Y1)		Gross profit (Y2)	
	Coef.	Std. Err.	Coef.	Std.Err.
Age of respondent	0.021***	0.004	-0.020***	0.003
Education level	0.003	0.018	0.020*	0.012
Access to loan	-0.040	0.117	-0.179**	0.080
Access to training	-0.023	0.128	0.273***	0.089
Membership to farmer group	0.054	0.130	-0.202**	0.088
Farming experience	-0.271***	0.135	0.894***	0.093
Risk-taking			0.057*	0.031
Proactiveness			-0.043	0.028
Innovativeness			0.031	0.028
Information- seeking			-0.013	0.025
Cosmopolitaness			-0.004	0.030
Decision-making			0.019	0.033
_cons	2.300***	0.285	2.569***	0.224
RMSE	0.82		0.56	
R square	0.10		0.42	
Chi <sup>2</sup>	29.82		186.81	
P value	0.00		0.00	

\* \*\* \*\*\* statistically significant at 1, 5 and 10%

**Econometric Results.** The results from the seemingly related regression analysis indicated that the correlation matrix of the residuals was 0.0244. This means that there is a positive relationship between entrepreneurial behaviour and gross profit. The Breusch-Pagan Test for diagonality of the variance-covariance matrix of the disturbances of the two equations was 0.6898 with a Chi square value of 0.159. Entrepreneurial behaviour and farming performance were the indicators used in the seemingly unrelated regression. Twelve parameters were used to establish direct and indirect interaction between entrepreneurial behaviour and farm performance (gross profit). The independent variables used were socio-economic characteristics, institutional factors, and entrepreneurial behaviour attributes of smallholder potato farmers in the potato farm enterprises in Central Rift Valley, Kenya.

The results shown in Table 7 indicate that the age of potato farmers had a positive significant effect on entrepreneurial behaviour at 1% significance level. This means that a unit increase in age of the potato farmer led to 0.021 increases in entrepreneurial behaviour of smallholder potato farmers. The possible explanation is that older potato farmers make informed decisions to grow certified seeds to minimise pest and disease infestation and follow good agricultural practices to increase potato yield. The finding concurs with Wanyonyi and Bwisa (2015) posit that age has a positive influence on the entrepreneurial behaviour of cabbage farmers in Kenya.

Farming experience had a negative and significant effect on the entrepreneurial behaviour of small scale potato farmers at 1% significance level. This shows that an increase in an additional year in potato farm enterprises led to 0.271 decreases in entrepreneurial behaviour of smallholder potato farmers. The reason is that experienced potato farmers follow traditional methods of farming rather than modern methods which never improve their entrepreneurial behaviour skills. This could be due to their education level since most of the farmers interviewed had a basic level of education and were females. The study disagrees with Kumar (2016) who found that entrepreneurship experience had a positive impact on the entrepreneurial behaviour of farmers in the Bhagalpur district of Bihar. The study stated that increase in farming experience helped farmers to minimize the expenditure required to manage their farm enterprises and ultimately resulting in an increase in farm income.

Age of potato farmers negatively and significantly affected the performance of small scale potato farm enterprises at 1% significance level. Based on the result, a unit increase in age by additional year led to 0.020 decreases in farm profitability. The argument here is that older farmers who had more knowledge and skills in potato farm enterprises tended to stick to their old production methods and techniques because they were afraid of taking risks in the potato farm enterprises. Potato farming enterprises require a lot of entrepreneurial qualities to adopt new production methods and techniques. The results reflect that as the potato farmers advance in age their self-confidence, motivation, physical strength, and skills reduce leading to low farm performance. This is supported by the empirical finding of Karane (2016) who found that as the age of producer's increases, their mental capacity to cope with farm challenges and physical ability to do manual works decreases leading to a reduction in farm profitability of bean production in the Babati District of Tanzania.

Education level of small scale potato farmers was found to have a positive and significant effect on the performance of small scale potato farm enterprises at 10% significance level. A unit increase in years spent in school increased the farm profitability by 0.020. The likely explanation for this is that access to formal education provides potato farmers with more knowledge and experiential learning



skills in the farm enterprises, making them adopt and practice modern agricultural innovations without hesitating lead to higher productivity and profitability. Education brings about behavioral changes in farmers that contribute to self-development by changing their knowledge and motivate them to try new ideas in agriculture. The findings of the study concurred with that of Mersha and Demeke (2017) that farmers who were empowered with more knowledge and best skills through education, employed effectively in the potato enterprises increase in farm profitability in Ethiopia. Access to credit was negative and statistically influences the performance of small scale potato farm enterprises at 5% significance level. The results indicated that potato farmers who had access to credits were less likely to increase farm profitability by 0.179. Though the main purpose of taking these credits was to support farm operations through purchasing of farm inputs, it was found that potato farmers who used credits from financial institutions use the fund to support other agribusiness activities other than potato farm enterprises this made them not to increase in the performance of potato farm enterprises. The finding disagrees with Kimuru's (2018) observation that credit is a major determinant of growth in business enterprises and entrepreneurs who accessed credit used to support the enterprises which tend to increase in the sales and profit of their MSE enterprises in Nairobi.

Access to entrepreneurial training services had a positive and significant effect on the performance of small scale potato farm enterprises at 1% significance level. A unit increase in access to training led to 0.273 increases in farm profitability. This shows that small scale potato farmers who received entrepreneurial training services on potato farming from stakeholders in the potato value chain transferred knowledge to their farm enterprises. Training provides technical skills that are necessary for running farm enterprises successfully and enhance farmer's confidence level. Therefore, training services develop farmers' entrepreneurial behaviour and skills to increase the productivity and profitability of potato enterprises in the central Rift Valley of Kenya.

Membership to farmer group negatively and significantly affects the performance of small scale potato farm enterprises at 5% significance level. A unit increase in membership reduced farm profitability by 0.202. The result means that potato farmers who belonged to a farm group were exposed to entrepreneurial opportunities but failed to market their potatoes collectively. Majority of the farmers interviewed reported marketing their potatoes individually rather than collectively. The finding contradicts Ndegwa (2016) who found that farmers who belonged to groups influence the marketing of pumpkins because these farmers shared information and established stable social networks through the group that enables them to sell more pumpkins and get more farm profits.

Farming experience had a positive and significant effect on the performance at 1% significance level. The results denote that a unit increase in the number of years in potato farming led to a 0.894 increase in farm profitability of small scale potato farm enterprises. The possible explanation is that the experienced small scale potato farmers depend on agriculture as their main source of income and livelihood with their primary objective of achieving higher farm profits through the adoption of modern agricultural practices. A similar finding was found by Donkor et al. (2019) whose study found that more experienced smallholder rice growers make better production decisions to adopt and used improved irrigation technology in their rice farm enterprises in Ghana.

The results from Table 7 indicate that risk-taking behaviour of potato farmers had a positive influence on the performance of small scale potato farm enterprises at 10% significance level. A unit increase in risk-taking behaviour score led to a 0.057 increase in farm profitability. Risk

taking behaviour plays an important role in determining farm profitability, *ceteris paribus*. The implication is that those potato farmers who took risks to try new seed varieties and adopt modern production methods could have had good yields and sold at higher prices, as well as could have made more profits in the potato farm enterprises. The observation is consistent with the findings of Shalla (2017) that found that risk-taking had a positive impact on the performance of the horticulture sector in Kashmir.

## Conclusion

The study concluded that age and farming experience had a positive and negative effect the entrepreneurial behaviour and performance of small scale potato farmers in the central Rift Valley of Kenya. Education level, access to credit, group membership, and access to entrepreneurial training risk-taking behaviour affected only the farm performance of small scale potato farmers. The study recommended that since entrepreneurial behaviour and farm performance are the important indicators for agriculture development in Kenya. Small scale potato farmers should develop entrepreneurial behaviour skills through participation in farmer group activities and interaction with extension officers to learn new agricultural practices and improve on their farm performance. Government should provide financial support for small scale potato farmers to enhance the production and profitability of potato enterprises.

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