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Effects of Financial Inclusion on Ownership of Productive Assets among Cassava Processors in Oyo State, Nigeria

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Abstract
This study investigated the level of productive asset ownership and the effects of financial inclusion on the ownership of productive assets among cassava processors in Oyo State, Nigeria. The study utilized primary data from 336 cassava processors selected through a multistage sampling procedure in Oyo State. Data were analyzed with descriptive statistics, principal component analysis to generate the respondents' index of productive assets ownership, and an ordered logit regression model to determine the effects of financial inclusion indicators and other socio-economic characteristics on respondents' level of asset ownership. The estimated cassava processing asset ownership index revealed that most respondents have a low level of cassava processing asset ownership. Specifically, ownership of important cassava processing assets like grinding machines, hydraulic pressers, and drums was low compared to the respondents' ownership of sieves and frying pots. The estimated coefficients of the ordered logit regression model indicate that financial inclusion indicators importantly and positively influence the likelihood of productive asset ownership. The ownership of bank accounts, bank savings, and improved credit access will significantly increase the probability of cassava processing asset ownership. Similarly, the possibility of cassava processing asset ownership was found to also increase with the increase in age, male gender, cassava land area cultivated, household income, native residency status, and household size, among others. Thus, this study recommends that the government and other relevant stakeholders make credit facilities more available and accessible to cassava processors. The cassava value chain actors should also be encouraged to adopt formal banking services. This will enhance the level of financial inclusion in the cassava value chain in the country while also helping to improve the respondents' investment in the necessary cassava processing assets to enhance the efficiency and profitability of the cassava processing value chain in Nigeria.

Keywords: Financial inclusion, Productive assets, Ownership, Cassava processor, Nigeria

Introduction

The role of cassava production in the sub-Saharan African agricultural space cannot be overemphasized, as it supports the livelihood of more than 250 million people in the region (IITA, 2022). Cassava is one of the staple food crops produced across the various agroecological zones in Nigeria, and it remains a major source of carbohydrate nutrients for human and livestock consumption. As of 2017, Nigeria was the world's largest producer of cassava (59 million tons), accounting for about 20% of the total global production. The FAOSTAT (2022) production figures show cassava increased from 32 million tons in 2000 to 60 million tons in 2021. This indicated that cassava production has grown by approximately 48% since the inception of this millennium (FAOSTAT, 2022).

Furthermore, IITA (2022) reported that about 37% of dietary energy is derived from the consumption of cassava. Nigeria is the second-largest consumer of cassava after the Democratic Republic of Congo. In 2013, Nigeria recorded a net export of 3.2 million tons of cassava valued at approximately $136 million (IITA, 2022). Cassava is a cash crop whose cultivation plays a vital role in attaining food security by providing food, employment opportunities, and foreign exchange earnings. Cassava farming in Nigeria is dominated by resource-poor small-scale farmers who cultivate small areas of land (less than two and a half hectares) with crude implements to feed the family (Sabo, Isah, Chamo, and Rabiu, 2017). The gap between the demand and supply of cassava has continued to deepen with the

discovery of ethanol content in cassava, which has high industrial value for producing other finished goods (Marx, 2019). Despite the high production level, the effect is yet to bring greater economic impacts to the farmers because the cassava is sold mainly as tubers, with little or no value addition to the tuber to command high market prices.

One of the major setbacks to the growth of the cassava value chain in Nigeria is postharvest losses. Oluwatusin (2016) states that over 50% of cassava output produced in Nigeria is lost at the postharvest stage. This is attributed to the poor storage system, poor transportation facilities, inadequate processing enterprises, poor processing mechanisms due to poor cultural practices, lack of credit facilities, and bulkiness of the cassava tubers, among other factors. Therefore, to reduce postharvest losses, cassava processing becomes worthy of attention to increase the revenue generation from cassava farming. Cassava processing increases food security, reduces food loss, facilitates transportation, and increases income generation through employment along its extended value chain. Under the traditional methods, Cassava processing is labour-intensive, drudgery, and inefficient. The use of modern cassava productive and processing assets are the major targets to increase the efficiency of cassava processing to ameliorate the challenges of traditional methods of cassava processing and reduce cassava postharvest losses.

In recent times, financial inclusion has become the tool the policymakers are concentrating on to improve rural dwellers' living standards, mostly farmers (World Bank, 2021). Financial inclusion can be defined as the use of formal financial services; financial inclusion is, therefore, a crucial determinant of economic development (Zins and Weill, 2016). The effects of financial inclusion on agriculture draw from the role finance plays in reducing poverty and inequality. Despite the recent financial sector growth in Africa, many individuals and firms are still excluded from access to formal financial services in Nigeria. According to the EFInA (2021) report on access to financial services in Nigeria, the bankable adult population grew from 38% in 2016 to 45% in 2020. However, about 58.3 million adults representing 55% bankable adult population, are financially excluded as of 2020. The report further shows that only 28.62 million adults were banked, representing 27% of the bankable adult population, while a large proportion saves at home. This resulted in billions of Naira circulating through the informal sector, negatively impacting the country's economic growth and development (EFInA, 2021). However, most of those fully excluded from formal financial services are rural residents practicing agriculture as their main occupation. The rural areas where the majority of the cassava farmers and processors are predominant are characterized by high poverty and high illiteracy levels, low levels of formal education, poor basic social amenities, and a shortfall of financial services (Mobio et al., 2021), thereby, making rural dwellers highly financially excluded. This has negative implications both for expanding the scale of agricultural production in Nigeria and for modernizing and commercializing Nigerian Agriculture.

The availability of finance leads to increased agricultural productivity and higher income for the farmers, which is useful for acquiring productive agricultural assets. Consequently, agricultural households' food and nutrition security will be enhanced, increasing agricultural productivity and reducing poverty (FAO, 2021). Therefore, widening access of rural smallholder farmers to financial services will increase farmers' access to credit, enable them to organize capital for improved agricultural investment, result in more efficient agricultural processes along the value chain of each crop, facilitate greater household savings, and consequently, reduces the level of food insecurity among farming households. Thus, financial inclusion is a vital development tool to sustainably improve the activities of the cassava value chain actors by purchasing sophisticated equipment that will increase efficiency from the production node to the processing node along the value chain (Yusuf, Hamzat, Akin-Olagunju, and Yusuf, 2019). The availability of financial institutions at the disposal of the rural farmers will enhance the cassava processors' access to loans under strict monitoring for the processors to use the loan for the purpose it is meant for (Abraham, 2018).

Although previous studies exist on financial inclusion in the agricultural sector, these include the assessment of the financial exclusion status of rural households in Africa, including Nigeria (EFInA, 2021; Triki and Faye, 2013) linkages between financial inclusion and agricultural productivity (Fowowe, 2020) production efficiency; livelihood diversification and welfare (Arowolo et al., 2022). However, empirical evidence of the influence of financial inclusion on the acquisition of productive and processing assets in the cassava value chain is very scanty, thus, indicating a gap in the literature that must be filled. To fill the gap and complement previous studies, this study investigates the effects of financial inclusion on the acquisition of productive assets among cassava processors in Ogun State, Nigeria. Specifically, this study profiled and described the socio-economic characteristics of the sampled cassava processors and the various cassava processing assets used by the respondents; identified various forms of financial services accessible by cassava processors; evaluated the cassava processors' productive assets index; empirically examined the effects of financial inclusion indicators on productive assets' acquisition by cassava processors.

The outcomes of this research will tremendously benefit the cassava value chain actors as it will reveal the relationship between financial inclusion and productive asset acquisition of the cassava value chain. The idea of financial inclusion to assets acquisition in Nigeria, especially among the grass root farmers through the provision of credit, is a welcome development for

sustainable agriculture, particularly in cassava processing. In addition, this study's results will serve as a guide for future agricultural credit and finance policy formulation, implementation, and evaluation.

Methodology

Study Area

The study area is Oyo State, which is one of the six states in Southwestern Nigeria, and its capital is Ibadan. The state has a total land size of 28,454 square kilometers between $7^0$1'32.74" - $9^0$11'7.81" N latitudes and $2^0$39'59" - $4^0$34'14.79" E longitudes. According to NBS (2016), Oyo State's estimated population is 7.8 million residents. Geographically, the state shares a border with Ogun State in the South; in the north with Kwara State; in the east with Osun State; and the west with Ogun State and partly the Republic of Benin. Oyo State has 33 Local Government Areas. The state is known for intensive agricultural activities, as most inhabitants engage in agriculture as the main source of livelihood. The climate in the state favours the cultivation of crops like maize, yam, cassava, millet, rice, plantains, cocoa, palm produce, cashew, and so on. There are four (4) Agricultural Development Programme zones in Oyo State: Ibadan/Ibarapa, Oyo, Ogbomosho, and Saki ADP.

Source of Data Collection and Sampling Technique

We used a multistage sampling procedure with a semi-structured questionnaire to collect primary data from cassava processors for the study. The first stage of the sampling technique involves randomly selecting one zone (Ibadan/Ibarapa zone) from the four ADP zones in Oyo state. The second step involves randomly selecting 5 blocks from the Ibadan/Ibarapa zone. The third stage involves the random selection of 4 cells from the selected blocks. The fourth stage involves the selection of 18 cassava processors from each of the selected cells, giving a total of 360 respondents sampled from this study. However, data from 336 respondents with complete information were used for this study's analysis.

Analytical Techniques

This study's data were analyzed using Stata version 17 (StataCorp, 2021) and Microsoft Excel 365 (Microsoft, 2021). We described the socio-economic characteristics of cassava processors and the various financial services accessible by the cassava processors in the study area using descriptive statistics such as means, frequencies, tables, and standard deviations.

Productive Asset Index - Principal Component Analysis (PCA)

To estimate the productive assets index for the sampled cassava processors, we used Principal Component Analysis (PCA). PCA is a multivariate technique that reduces a large amount of correlated data into fewer uncorrelated components. PCA reduces large data dimensionality and increases interpretability while limiting initial data loss. PCA has been widely used in the literature to compute various indexes such as the climate vulnerability index (Tesso, Emana, and Ketema, 2012), resilience capacity index (Tambo and Wünscher, 2017) and resilience index (Melketo et al., 2021). We collected data on the different numbers of cassava processing assets, such as hydraulic pressers, grinding machines, drums, sieves, frying pans, and pots used by the respondents. These cassava processing assets are indicator variables representing the respondents' asset ownership. We conducted PCA on the five cassava processing asset ownership indicator variables; three principal factors having eigenvalues greater than one were retained, accounting for 71 percent of the variation in the respondents' indicator variables. The retained factors are aggregated thereafter, and the asset index is predicted. For easy interpretation, the predicted index was standardized using the minimum-maximum approach. Following Tambo and Wünscher (2017), we computed the cassava processors' productive assets index using the formula below.

$$C_j = \frac{\sum_{i=1}^{k}[b_i(a_{ij} - x_j)]}{s_i} \quad (1)$$

Where;

c_j = productive asset index for processor

b = the weights (scores) assigned to the aggregated principal components

a_{ij} = the indicator value for processor j

x_j = the mean values of each indicator

s_j = standard deviation of the indicator

Ordered Logit Regression Model

An ordered logit regression model was used to examine how financial indicators influenced cassava processors' acquisition of productive assets. The model is widely used when the dependent variable has more than two categories, and the outcomes of each category have a meaningful sequential order that indicates one value is greater than another (Oyawole, Ajayi, Aminu, and Akerele, 2016). In this study, the dependent variable is the level of asset ownership, categorized into low, intermediate, and high levels. Since the ordered logit estimates are in log-odd units, they cannot be interpreted like an OLS estimate. As a result, the signs and significance levels associated with each estimate indicate the direction of the response. Consequently, we obtained marginal effects, which measure the rate at which dependent variables change due to independent variables. Following Obayelu (2012) and Arowolo et al. (2022), we specified the ordered logit regression. (2)

$$Y_j^* = X_j^i \beta + U_{ij} \quad (2)$$

$Y = 0$ if $Y^* \leq 0.33$; low asset ownership

$Y = 1$ if $0.33 \leq Y^* \leq 0.66$; intermediate asset ownership

$Y = 2$ if $0.66 \leq Y^* \leq 1.0$; high asset ownership

Where Y^* is the level of productive asset ownership and involves ordered outcomes. X_{ij} are the explanatory variables hypothesized to influence the level of asset ownership, which include age, gender (base category:

female) male; marital status (base category: otherwise) married; education level (base category: no formal education), primary education, secondary education, tertiary education; household size; total area cultivated; main occupation (base category: farming), civil servant, trading, artisan; total income; native status (base category: non-native), native; access to credit (base category: no), yes; own a bank (base category: no), yes; save money in the bank (base category: no), yes. β_s are the parameters estimated and U_{ij} is the stochastic error term.

Results and Discussion

Socio-economic Characteristics of the Respondents

Table 1 summarises the socio-economic characteristics of cassava processors and financial inclusion indicators hypothesized to influence their acquisition of productive assets. Most household heads of cassava processors (61%) are male, with an average age of 52 years, an average household size of 5, and an average education of 10.70 years. 62% of cassava processors are married and cultivate an average of 0.31 hectares of land. More than two-thirds of the cassava processors are native to the study area, with an average income of ₦87,553.57. As for the financial inclusion indicator, 57% of cassava processors have access to credit, while 66% have a savings account. The contribution of productive asset ownerships to profit, cost of production, and over-reduction of processing time cannot be overstated in an enterprise such as cassava processing. The lack of ownership of productive assets may force processors to send the products elsewhere for processing, increasing production costs and causing processing delays.

Cassava Processing Asset Acquired

Table 2 presents information about the common productive assets owned by the cassava processors in the study area. Approximately 24% of respondents have more than three hydraulic pressers, while 76.19% have between one and three. About half of the cassava processors have one to three drums, 18% have more than three, and 32% have none. More than two-thirds (78%) of processors have between one and three sieves, and 22% have more than three. In cassava processing, grinding machines are key tools. Despite this, only 8% of processors own a grinding machine, suggesting that 92% grind their product elsewhere. Furthermore, 64% of the processors do not own a frying pan and pot, while 33.3% have between one and two pots, and 2% have more than two pots.

Cassava Processing Asset Index Status

The frequency distribution of the respondents' cassava processing assets categories is presented in Table 3. Our results indicate that most (82.14%) respondents have low ownership of cassava processing assets. On the other hand, about 10% and 7% of the respondents have intermediate and high cassava processing assets, respectively. This implies that the respondents' ownership of cassava processing assets is quite low, which may impair the cassava processors' profits and household welfare, as well as the efficiency of the cassava processing and cassava value chain in the study area.

Determinants of Productive Assets Ownership among Cassava Processors

Using the ordered logit regression model, our study explored the relationship between financial indicators and the level of productive assets for cassava processors. Table 4 presents estimates of ordered Logit coefficients, standard errors, z-statistics, and their corresponding p-values. Table 5 presents the marginal effects of ordered logit regression analysis. The coefficient of age has a positive and significant level at ($p<0.01$); this implies that the more a household head increases in age, the less likely to be in the low asset category. The marginal effect estimates for age revealed that household heads are about 1 percentage point less likely to be in the lower asset category and more likely in the intermediate and high assets categories by about 1 and 0.42 percentage points, respectively. Hence, an increase in age will likely lead to less low asset ownership. This finding is consistent with previous studies by Opiyo et al. (2014) and Babatunde et al. (2008), who found that elderly farmers are relatively less productive in rural communities of Kenya and Kwara State of Nigeria, respectively. The coefficient of gender has a significant and positive relationship at ($p<0.01$). This implies that the male headed-households are less likely to possess a low asset level and more likely to be in the intermediate and high asset category. The marginal effect estimates revealed that the male-headed households are about 5 percentage points less likely to be in the low asset level and more likely in the intermediate and high asset levels by about 7 percent and 2 percentage points, respectively. This is true because male respondents possess more strength to work on the farm and perform farm drudgery than their female counterparts. This result is in tandem with the finding of Oladokun et al. (2018), who found that female-headed households have higher chances of being in a low level of asset ownership compared with their male counterparts in the Northeast and Southeast of Nigeria. Also, Balikoowa et al. (2019) found that male-headed households possess more productive assets than female-headed households in Eastern Uganda. The coefficient of Household size has a significant and positive level at ($p<0.05$), which implies that the more people in a household, the less likely the household will possess low asset ownership and are more likely to be in the intermediate and high asset ownership level. The marginal effect estimates revealed that the household size is about 3 percentage points less likely to be in the low asset ownership category and more likely to be in the intermediate and high asset ownership category by about 2 percentage points and 1 percentage point, respectively. The result could suggest that most household members are economically active and contribute to the household purse. This result reaffirms the findings of Oladokun et al. (2018), who found that household size positively influences the probability of a household being in higher levels of asset ownership in Northeast and Southeast Nigeria. The

coefficient of the total area cultivated has a significant and positive relationship at ($p<0.01$), implying that the more area of land cultivated, the less likely the household falls into the low asset ownership category and more likely to be in the high asset ownership level by about 9 percentage points. Hence, an increase in the total cultivation area will likely lead to less low asset ownership. Moreover, this is true because the more land available for cultivation, the more crops the farmers can plant and diversify, which will lead to increased income that can be used to purchase more high assets. The coefficient of being a native is positive and significant at ($p<0.05$). This implies that the more natives we have in the community, the less likely the native will be within the low asset ownership category and more likely to be in the intermediate and high asset ownership category at about 5 and 4 percentage points, respectively. Hence, if an individual is a native, such individual is less likely to posse low assets. The access to credit coefficient has a positive, and it is significant at ($p>0.01$), which the marginal effects revealed that with an increase in the access to credit, the less likely to be in the low asset ownership level and more likely to be in the intermediate and high asset ownership level of about 19, 11 and 8 percentage points respectively. This implies that the more credit facilities a farmer can access, the less likely the farmer will possess low assets. Hence, when a farmer has access to credit, he can purchase relevant inputs for agricultural activities and cultivate more land area, which will, in turn, bring in more profit and lead to high or intermediate asset ownership. This finding is in line with Das et al. (2009), which show that agricultural credit is a crucial factor for agricultural production in India; Acha (2012) found that non-bank financial institutions' credit has a significant impact on the manufacturing/agricultural GDP in Nigeria; and Obilor (2013) which show that the Agricultural Credit Guarantee Scheme Fund and Government fund allocation to agriculture has a significant positive impact on agricultural productivity in Nigeria. On the contrary, the finding conflicts with such studies as Ahmad and Masood (2009), which show that institutional credit has no significant impact on agricultural production during the post-reform period in India. Owning a bank account and saving money in the bank both have a positive relationship and are significant at ($p<0.01$) and ($p<0.05$), respectively. The marginal effect estimates revealed that respondents who own bank accounts are more likely to be in the intermediate and high asset ownership categories at about 4 and 3 percentage points, respectively. In addition, the more bank savings, the less likely respondents will have a low cassava processing asset ownership by about 7 percentage points.

Conclusion

We empirically assessed the level of cassava processors' productive asset acquisition and the effects of socio-economic characteristics and indicators of financial inclusion on the level of productive asset ownership among cassava processors in Oyo State, Nigeria. According to our results, the sampled cassava processors have a moderate level of financial inclusion, as about half reported having access to credit facilities, ownership of bank accounts, and bank savings. Also, the commonly used cassava processing assets include hydraulic pressers, grinding machines, drums, sieves, frying pans, and pots. However, the level of ownership of the productive assets is quite low, as evidenced by the finding that most sampled cassava processors have a low productive assets index. This implies that most of the respondents do not own the required assets for cassava processing, indicating that they mostly borrow cassava processing assets. The respondent's ownership of cassava processing assets is significantly and positively influenced by age, male gender, household size, total cassava land area cultivated, total income, native status, access to credit, ownership of bank accounts, and bank savings. Arising from the findings of this study, we recommend that financial institutions and the private sector should be encouraged to give financial services to cassava processors. The cassava value chain actors should also be encouraged to adopt formal banking services. Government and other relevant stakeholders should make credit facilities more available and accessible to cassava processors. This will enhance the level of financial inclusion in the cassava value chain in the country while also helping to improve the respondents' investment in the necessary cassava processing assets to enhance the efficiency and profitability of the cassava processing value chain in Nigeria.

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Table 1: Data Description for Selected Variables

Variables	Description	Mean	Std. Dev.
Socioeconomics variables			
Gender	Dummy for the gender of the respondents (1 if male, 0 otherwise)	0.61	0.49
Age	Age of respondents (years)	51.98	12.46
Household size	Number of household members	4.81	1.90
Years of education	Number of years of formal education of respondents	10.70	4.68
Marital status	Marital status of the respondents (1 if married, 0 otherwise)	0.62	0.49
Total land area cultivated	Total cassava land area cultivated in hectares	0.31	0.21
Total income (₦)	Total income of the respondent in Naira	87,553.57	27,271.06
Native status	Dummy for the respondent's native status (1 if the is a native of their community of residence, 0 otherwise)	0.79	0.40
Financial Inclusion Indicators			
Bank account	Whether or not the respondent has a personal account in the bank (1 if yes, 0 otherwise)	0.50	0.5
Access to credit	Dummy for access to credit by the respondent (have access =1)	0.57	0.49
Bank savings	Whether or not the respondent saves money in the bank (1 if yes, 0 otherwise)	0.66	0.47
Productive asset index	Estimated index of productive assets used in cassava processing	0.24	0.20

Table 2: Distribution of Respondents' Cassava Processing Asset Acquired

Cassava Processing Assets	Quantity	Frequency	Percentage
Hydraulic Pressers			
	Between one and three	256	76.19
	More than three	80	23.81
Drums			
	None	108	32.14
	Between one and three	166	49.40
	More than three	62	18.45
Sieves			
	Between one and three	262	77.98
	More than three	74	22.02
Grinding Machines			
	None	308	91.67
	Between one and two	28	8.33
Frying Pan and Pots			
	None	216	64.29
	Between one and two	112	33.33
	More than two	8	2.38

Table 3: Distribution of Respondents' Cassava Processing Asset Index Status

Categories of Cassava Processing Asset Index	Frequency	Percentage
Low Asset Ownership	276	82.14
Intermediate Asset Ownership	36	10.71
High Asset Ownership	24	7.14

Table 4: Ordered Logit Coefficient Estimates for the Determinants of Productive Assets Acquisition among Cassava Processors

Variables	Coefficient	Std. Error	z	p>|z|
Age	0.142***	0.021	6.63	0.000
Gender (Base category: Female)				
Male	1.796***	0.608	2.96	0.003
Marital Status (Base category: Otherwise)				
Married	-0.620	0.556	-1.11	0.265
Education Level (Base category: No formal education)				
Primary Education	0.403	0.677	0.60	0.551
Secondary Education	0.653	0.801	0.82	0.415
Tertiary Education	0.050	0.849	0.06	0.953
Household Size	0.349**	0.137	2.54	0.011
Total area cultivated	3.114***	0.933	3.34	0.001
Main occupation (Base category: Farming)				
Civil servant	1.230*	0.650	1.89	0.058
Trading	0.509	1.377	0.37	0.712
Artisan	0.476	0.778	0.61	0.541
Total income	1.7^{-05}**	7.6^{-06}	2.24	0.025
Native status (Base category: Non-native)				
Native	1.412**	0.678	2.08	0.037
Access to credit (Base category: No)				
Yes	2.626***	0.489	5.37	0.000
Own a bank (Base category: No)				
Yes	1.035***	0.399	2.59	0.010
Save money in the bank (Base category: No)				
Yes	0.968**	0.450	2.15	0.032
Diagnostic Measures				
Number of Observations	336			
Log-likelihood value	-109.7044			
Likelihood Ratio Chi2 value	176.67			
Probability > Chi2	0.0000			
Pseudo R2 value	0.4460			

Source: Field Survey, 2021

****** Statistically significant at 1% level, ** Statistically significant at 5% level, * Statistically significant at 10% level***

Table 5: Marginal effect results of ordered logit regression analysis on the level of assets ownership

Variables	Low Asset Ownership		Intermediate Asset Ownership		High Asset Ownership	
	Coefficient	Stand. Error	Coefficient	Stand. Error	Coefficient	Stand. Error
Age	-0.0104***	0.0014	0.0062***	0.0011	0.0042***	0.0006
Gender (Base category: Female)						
Male	-0.1211***	0.0370	0.0737**	0.0248	0.0474***	0.0146
Marital Status (Base category: Otherwise)						
Married	0.0473	0.0440	-0.0285	0.0266	-0.0188	0.0177
Education Level (Base category: No formal education)						
Primary Education	-0.0269	0.0425	0.0158	0.0247	0.0111	0.0179
Secondary Education	-0.0459	0.0531	0.0273	0.0310	0.0187	0.0223
Tertiary Education	-0.0031	0.0524	0.0018	0.0302	0.0013	0.0222
Household Size	-0.0254***	0.0099	0.0151**	0.0062	0.0103***	0.0040
Total area cultivated	-0.2271*	0.0669	0.1351	0.0440	0.0920*	0.0270
Main occupation (Base category: Farming)						
Civil servant	-0.1081	0.0666	0.0657	0.0406	0.0424	0.0271
Trading	-0.0391	0.1164	0.0237	0.0713	0.0154	0.0452
Artisan	-0.0364	0.0636	0.0221	0.0388	0.0143	0.0249
Total income	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Native status (Base category: Non-native)						
Native	-0.0908 **	0.0374	0.0549**	0.0233	0.0359**	0.0154
Access to credit (Base category: No)						
Yes	-0.1924***	0.0316	0.1126***	0.0243	0.0799***	0.0150
Own a bank account (Base category: No)						
Yes	-0.0761	0.0292	0.0445**	0.0180	0.0316***	0.0123
Save money in the bank (Base category: No)						
Yes	-0.0654**	0.0278	0.0383	0.0167	0.0272	0.0120

Source: Field Survey, 2021

****** Statistically significant at 1% level, ** Statistically significant at 5% level, * Statistically significant at 10% level***