

FACTORS INFLUENCING DECISIONS FOR USING OUTSIDE FUNDS FOR FARM INVESTMENTS AND PROPRIETOR WITHDRAWALS BY SMALL-SCALE FARMERS IN ABIA STATE, NIGERIA

Chriso O. EMEROLE, Chidozie O. ANYIRO, K.C. OSONDU, A.N NWACHUKWU, K.K. MBUBAEGBU, G.M.C IBEZIM

Abia State University Uturu, Department of Agricultural Economics and Extension, P.M.B 7010, Umuahia Campus Nigeria, Email: emerolechriso@yahoo.co.uk, anyirochidozie@gmail.com

Corresponding author: emerolechriso@yahoo.co.uk

Abstract

This study on factors influencing decisions for using outside funds for Farm investments and for proprietor withdrawals was carried out among rural small-scale farm households in Abia state, Nigeria. A cross-sectional survey of ninety (90) rural farm households of multi-type (varied) enterprises was carried out using cluster random sampling technique in three communities, each chosen from one of the three agricultural zones of the state. Results indicated rural household level variables that positively influenced decisions to source farm investment fund to include level of education, gender, membership of cooperative society, interest charge, land acquisition method, and ease of getting loan. Other factors that negatively influenced decisions include farming as major occupation, household savings, household size, and distance of farmers' home to source of credit. Proprietor withdrawal decisions were positively influenced by household level variables like taking farming as major occupation, payment of school fees for children of farmers, and amount of credit so far repaid by a farm household. Other factors namely household size, being member of cooperative society or savings group, interest charges on loan, off-farm income, and household savings had negative influences on proprietor withdrawal decisions. We recommended that small-scale farmers should not borrow their start-up capital from outside their households but as their farm businesses stabilize, they could decide to take loans from outside to cover their working capital and/or expand their farms and be prepared to repay such loans according to contractual agreements.

Key words: farm investment, outside funds, own funds, proprietor withdrawal decisions

INTRODUCTION

Farm investment refers to that exercise of using some finance of the present to purchase and use production resources in anticipation of recouping it in streams of income or profit in a future date. It may involve using such finances in getting some tangible structures or resources (fixed investment) or some other work-based resources intended to produce future products (inventory investment) (Arnold, 200). In Nigeria and many developing countries, small-scale farmers have reliably and dependably funded their farm projects with their own funds and retained profits from household businesses (Emerole and Ndu, 2011; Sebopetji and Belete, 2009; Asiegbu and Ebiringa, 2007; Nguyen, 2007; and Anyanwu, 2004). Such farmers have complained of denied access to loans from commercial banks on account of their

inability to provide the necessary collaterals demanded by the banks (Mbubaegbu, 2011; Osuala *et. al.*, 2012). Nigerian government since her second republic years has responded to palliating this hurdle to these small-scale farmers by instituting development bank-Nigerian Agricultural and Cooperative Bank (NACB) in 1972, which extended loans to both small and large scale farmers; agricultural lending risks reduction schemes-Agricultural Credit Guarantee Scheme Fund (ACGSF) in 1978 by which the Central Bank of Nigeria (CBN) guaranteed loans extended by Commercial banks up to 75.0% in case of any default in borrowers repayments; proximity enhancing scheme- rural banking system of 1977 by which commercial banks were required to establish some given number of rural branches; liberal economic policies such as setting up of Peoples' Bank (PB) of

1989 to cater for poor borrowers, Community Banks (CB) of 1990s; merger and reform policies-merging Peoples' bank with NACB and the risk assets of the Family Economic Advancement Programme (FEAP) to form Nigerian Agricultural Cooperatives and Rural Development Bank (NACRDB) in 2000; licensing and renaming of CB to Microfinance Institutions (MFIs) in 2005 which currently has been renamed Bank of Agriculture (BOA).

In spite of these efforts, analysts have reported poor repayment of borrowed and invested funds by farmers under different loan schemes (Njoku and Nzenwa, 1990; Njoku and Odii, 1991; Njoku and Obasi, 1991; Oke, *et. al.*, 2007). Among reasons advanced for the poor repayment of borrowed funds are loan diversions, poverty, social expenses (on ceremonies, social clubs, religious obligations, extended family) (Oke *et. al.*, 2007) and using of loans to fund family consumption expenditures (Ogunfowora, *et. al.* 1972). Funds borrowed from outside sources by farmers include those formal and informal credit facilities outside the farmer's personal savings invested in farm activities. In Abia state and in other states of Nigeria, formal credit sources include Commercial banks, BOA, government farm credit corporations and MFIs with the informal credit-giving units including Cooperative societies, farmers savings groups, traditional farmers associations, friends/relatives, and money lenders (Adebayo and Adeola, 2008). To determine actual factors that influence use of these funds sourced from outside a farmer's savings, this study had its specific objectives to: (i) describe household level socio-economic of beneficiaries of loans for farm investments ; (ii) determine factors that influenced decision to source credit for investing in small farm enterprises; (iii) analyze farm investment fund (credit) uses by types; and (iv) determine factors that influenced decisions of heads of farm households to withdraw part of borrowed funds to fund consumption expenditures or fund other investments.

MATERIALS AND METHODS

Study Area.

This study was conducted in Abia State, Nigeria. This state is one of the south-eastern states of Nigeria lying between longitudes $04^{\circ} 45'$ and $06^{\circ} 17'$ East of the Greenwich Meridian and latitudes $07^{\circ} 00'$ and $08^{\circ} 10'$ North of the Equator. Occupying an area of $5,833.7 \text{ Km}^2$ (ABSEEDS, 2004), Abia is located 596 Km away from Lagos and 498 Km away from Abuja, the Federal Capital Territory (ABSEEDS, 2004). The state with its administrative headquarters at Umuahia has a population of 2,833,999 consisting of 1,434,193 males and 1,399,806 females (FRN, 2007), and is made up of seventeen (17) local Government Areas (LGAs), with three Agricultural zones. The Agricultural zones are Aba, Umuahia, and Ohafia that are inhabited by about 315,910 farm households (ADP, 1995). Abia State is notable for production of tree crops like oil palm, Cocoa, Cashew, and Rubber. Livestock farming in the state produce poultry, pigs, goats, sheep and rabbits. Food crops grown in the state are Cassava, Yam, Rice, Plantain, Banana, cowpeas, vegetables, melon, pineapples and maize. The commonest farming system in Abia State agricultural zones is mixed farming with most farmers operating on scales that classify them as smallholders.

Sampling Technique and Data Collection.

The data were collected following a cross-sectional survey of ninety (90) rural farm households of multi-type (varied) enterprises using cluster random sampling technique in three rural communities, each chosen from the three agricultural zones of the state. The communities are Umuekechi-Asa from Aba zone, Nsirimo from Umuahia zone, Eluama-Isuikwuato from Ohafia zone of the State. A farm household was defined for this study in line with Anderson (2002) as an economic unit consisting of either a single person or a group of persons who live together and depend on common income and within the limits of that income, exercise choices in meeting specific objectives and where at least one member describes their major occupation

as farming. A questionnaire was administered to each chosen farm household following personal interview method by one enumerator in each agricultural zone. Three enumerators were involved in this exercise, collecting data simultaneously from farm households. Data gathered included age of head of farm household, gender, farming experience, household size, farm size, annual personal savings, level of education of household head, land acquisition methods, annual maximum time worked (hours) by hired labour, daily wage rate, number and types of livestock kept, livestock housing needed, Annual budget for livestock healthcare, annual livestock feed budget, membership of traditional savings association, interest charged on loan source, perceived ease of getting loans, and distance of loan source from farmer.

Data Analytical Techniques

A combination of statistical tools including frequency distribution, percentages, and means was used in analyzing the data collected for this study. While frequency, percentages and means were used to describe the socio-demographic characteristics of the farm households (objectives (i) and (iii)), objectives (ii) and (iv) involved limited response dependent variable which was analyzed with multiple regression probit model. Factors that determined decision to source credit for investing in small farm enterprises and factors that influenced decision of heads of farm households to withdraw part of their borrowed funds to fund consumption expenditures or fund other investments were determined with the model of limited dependent variable as introduced by Tobin (1958) and as applied by Amamiya (1981) and corrected for bias (Heckman, 1976) in selection of respondents. This probit model was stated as follows:

$$Y_{ij} = \alpha_j + \beta_j \sum_{k=1}^s H_{ijks} + \epsilon_{ij} \quad \dots (1)$$

Where the H_{ijks} are vectors of s explanatory variables of the j th household using services of borrowed funds in farm investments; Y_{ij} is

a vector of binary variables such that $Y_{ij}=1$ if the j th household employs the services of borrowed funds, and 0 otherwise. Since Y_{ij} can only assume two different values for the decisions, 1 or 0. The expected probability was defined as follows:

$$E(Y_{ij}) = E \left[\alpha_j + \beta_j \sum_{k=1}^s H_{ijks} + \epsilon_{ij} \right] \\ = \alpha_j + \beta_j \sum_{k=1}^s H_{ij} E(H_{ij}) \quad \dots (2)$$

Equation (2) defines the proportion of households with characteristics (H_{ij}) likely to influence use of the services of borrowed funds in their farm investment and the decisions of heads of farm households to withdraw part of the borrowed funds to fund consumption expenditures or fund other investments. The empirical model was specified for decision to take borrowed funds for farm investment thus:

$$EXP_{ij} = \beta_0 + \beta_1 \ln(FS_{ij}) + \beta_2 \ln(ED_{ij}) + \beta_3 \ln(OC_{ij}) + \beta_4 \ln(AC_{ij}) + \beta_5 \ln(HS_{ij}) \\ + \beta_6 \ln(SV_{ij}) + \beta_7 \ln(OF_{ij}) + \beta_8 \ln(AG_{ij}) + \beta_9 \ln(GD_{ij}) + \beta_{10} \ln(CP_{ij}) \\ + \beta_{11} \ln(DC_{ij}) + \beta_{12} \ln(TC_{ij}) + \beta_{13} \ln(LA_{ij}) + \beta_{14} \ln(EG_{ij}) + \epsilon_{ij} \quad \dots (3) \text{ and}$$

decisions of heads of farm households to withdraw part of the borrowed funds to fund consumption expenditures or fund other investments thus:

$$EXP_{ij} = \beta_0 + \beta_1 \ln(FS_{ij}) + \beta_2 \ln(ED_{ij}) + \beta_3 \ln(OC_{ij}) + \beta_4 \ln(AC_{ij}) + \beta_5 \ln(SV_{ij}) \\ + \beta_6 \ln(HS_{ij}) + \beta_7 \ln(AG_{ij}) + \beta_8 \ln(GD_{ij}) + \beta_9 \ln(CP_{ij}) + \beta_{10} \ln(SF_{ij}) \\ + \beta_{11} \ln(TC_{ij}) + \beta_{12} \ln(CR_{ij}) + \beta_{13} \ln(OF_{ij}) + \epsilon_{ij} \quad \dots (4) \text{ and}$$

Where explanatory variables (continuous and binary) are as defined in Table 1.

Table 1. Description of Variables analyzed by Probit Regression Model

Variable	Variable Type	Expected Sign Eqn. 3	Expected Sign Eqn. 4	Description of Variable
EXPij	Binary			1 if the jth household decides to take loan for farm investment; 0 if otherwise Eqn. (3); 1 if the jth household head decides to withdraw part of the loan or returns from its use to fund household consumption or other investment; 0 if otherwise eqn. (4);
FS ij	Binary	+	+	1 if size of farmland is at least 3.0 hectares or number of livestock is at least 100 heads; 0 if otherwise;
EDij	Continuous	-	-	Number of years of formal Education;
OCij	Binary	+	+	1 if household major occupation was farming; 0 if otherwise
ACij	Continuous	+	+	Amount of credit obtained for farm investment in Naira;
CRij	Continuous		+	Percentage of credit repaid;
HSij	Continuous	+	+	Household size (a single person or a group of persons living together and depending on common income and within limits of that income, exercise choices in meeting specific objectives and where at least one member describes their major occupation as farming);
AGij	Continuous	+	+	Age of head of household (years);
GDij	Binary	+	+	1 if male; 0 if otherwise;
CPij	Binary	+	-	1 if member of Cooperative Society or Farmers Savings Group; 0 if otherwise;
DCij	Continuous	-	+	Distance to formal source of farm credit in Kilometers;
TCij	Continuous	-	-	Interest charged on borrowed fund in Naira;
LAij	Binary	+	-	Method land Acquisition (1 if purchased; 0 if otherwise);
EGij	Binary	+	+	Perceived ease of getting credit (1 if Easy; 0 if otherwise);
OFij	Continuous	-	-	Annual household off-farm income in Naira;
SFij	Binary		+	Payment of children school fees (1 if yes; 0 if otherwise).
SVij	Continuous	-	-	Annual Household Savings in Naira.

The dependent variable for equation (3) is household's decision to take outside fund (loan) for farm investment as defined in equation (1); and the dependent variable for equation (4) is decision of heads of farm households to withdraw part of the borrowed funds to fund consumption expenditures or fund other investments as defined in equation (1). It was hypothesized that taking outside fund (loan) for farm investment by a household would positively be influenced by: FSij; OCij; ACij; CPij; LAij; and EGij; but would negatively be influenced by: EDij; SVij; OFij; AGij; DCij; and TCij on one side; and a farmer deciding to withdraw part of the borrowed fund to finance consumption expenditures or fund other investments would positively be influenced by: OCij; ACij; HSij; SFij; and CRij; but would negatively be

influenced by: FSij; EDij; SVij; AGij; CPij ; TCij and OFij.

RESULTS AND DISCUSSIONS

General Characteristics

The socioeconomic characteristics of sampled ninety (90) farm households in Abia State of Nigeria are as summarized in Table 2.

It revealed that farm sizes to a good proportion of the farm households (52.2%) was less than one hectare (mean 0.81ha) with only a small proportion (15.6%) cultivating more than three hectares (mean 5.12ha).

Ugwumba *et. al.*, (2010) revealed that small sizes of farms amongst smallholders in southeastern Nigeria call for some form of Integration especially to a proportion (47.62%) with some crop-livestock

integration potential. Size of households in the area skewed more (54.4%) to at most six members.

The mean size of the farm households ranged from approximately five to seventeen members.

Table 2. Socioeconomic of Farm Households Abia State Nigeria, 2011

Variable	Number	Mean of continuous Variables n=90	Percentage (%)
Annual Arable crop farm Size (Hectares)			
< 1.0	47	0.81	52.2
1.0 – 3.0	29	2.53	32.2
> 3.0	14	5.12	15.6
Household Size (Number)			
1-6	49	4.91	54.4
7-13	25	8.91	27.8
> 13	16	16.52	17.8
Education Level of Household head (Years)			
No formal Education	17	0.0	18.9
Primary Education	24	5.7	26.7
Secondary Education	30	8.4	33.3
Tertiary Education	19	21.2	21.1
Farm Investment Loans by households in Agricultural Zones (N'000)			
Aba Agric. Zone	30	30.8	33.3
Umuahia Agric. Zone	30	22.7	33.3
Ohafia Agric. Zone	30	23.2	33.3
Gender of head of Households			
Adult male	67		74.4
Adult female	23		25.6

₦150.00 ≈ US \$1.00. Source: Field Survey, 2011.

Large household sizes have negative implications on effective use of loans and their repayments (Njoku and Obasi, 1991). The formal educational attainment of heads of farm households in the area was relatively high since only 18.9% of them had no formal education. Level of formal education and literacy of a household head could influence his/her decisions on source and type of credit to use in farm operations.

Table 2 further revealed that farm households in Aba agricultural zone relatively took more farm credit (₦924, 000.00) (mean ₦30,800.00) than their colleagues in Umuahia agricultural zone (₦681, 000.00) (mean ₦22, 700.00) and Ohafia zone (₦696, 000.00) (mean ₦23, 200.00). Two factors, namely relative better soil fertility and proximity to urban market no doubt accounted for this difference of borrowing for production (risks) amongst these farmers. There are relatively more male headed farm households (74.4%) than female headed farm households (25.6%) amongst the respondents in the state.

Farm Credit Uses and Investment Types

Table 3 shows distribution of used farm investment loans households in Abia State, Nigeria.

Broadly, the study identified two types of investment spending namely fixed investments and inventory investment. The fixed investments in the farm business are the purchases of capital goods such as implements, livestock pens (houses), and farmers' new residential houses. The inventory investments are changes in farm business inventories (Arnold, 2001).

Table 3 shows that farm investments loans taken by the respondents were used more in Aba agricultural zone (₦924, 000.00) than in Ohafia agricultural zone (₦696,000) and in Umuahia agricultural zone (₦681,000.00). The items funded as fixed investments included rent paid on leased farmlands, construction of livestock pens, and purchase of farm implements.

These accounted for ₦240,000.00 in Aba agricultural zone, ₦149,000.00 in Umuahia

agricultural zone, and ₦163,000.00 in Ohafia agricultural zone or cumulative 23.99% of the

Table 3. Borrowed Funds Uses by Types of Investments in Zona of Abia State, Nigeria, 2012

Agricultural zone	Farm Investment Type	Amount ₦'000	Total ₦'000
Aba	Fixed Investment:		
	Rent on leased land	92	240
	Construction of Pens	62	
	Purchase of Implements	86	
	Inventory Investment:		
	Purchase of Fertilizers	179	684
	Wages to hired labour	204	
	Seeds & planting materials	47	
	Livestock feeds	197	
	Livestock medication	57	
Sub-total		684	
		924	
Umuahia	Fixed Investment:		
	Rent on leased land	65	149
	Construction of Pens	46	
	Purchase of Implements	38	
	Inventory Investment:		
	Purchase of Fertilizers	124	532
	Wages to hired labour	168	
	Seeds & planting materials	44	
	Livestock feeds	148	
	Livestock medication	48	
Sub-total		532	
		681	
Ohafia	Fixed Investment:		
	Rent on leased land	68	163
	Construction of Pens	53	
	Purchase of Implements	42	
	Inventory Investment:		
	Purchase of Fertilizers	141	533
	Wages to hired labour	147	
	Seeds & planting materials	38	
	Livestock feeds	156	
	Livestock medication	51	
Sub-total		533	
		696	
Total			2.301
Proportions			Percentage (%)
Fixed investment			23.99
Inventory investment			76.01

₦150.00 ≈ US \$1.00. Source: Field Survey, 2011.

Items of inventory investment were purchase of fertilizers, wages to hired labour, seeds and planting materials, livestock feeds, and livestock medication. These variables accounted for ₦684,000.00 in Aba agricultural zone, ₦532,000.00 in Umuahia agricultural zone, and ₦533,000.00 in Ohafia agricultural zone or cumulative 76.01% of total investment funds used in the area.

Decision Determinants

Farm households are often confronted with challenges of making decisions between alternative choices. In the area of their finance needs, decision often revolves around using own savings to fund farm activities and investment or going out to borrow funds for investment in farming. When the later is the option, the farmer will have to decide which financial market to go and borrow funds. The first stage of this decision to take or not to take outside fund to finance farm investment is usually influenced by some factors. Table

4.0 shows estimate of some of these hypothesized factors among small-scale farmers in the study area. The table reveals ten out of fourteen variables as being statistically significant in informing this investment borrowing decisions of the farmers.

(a) Factors Influencing Decisions to Borrow fund for Farm Investment

Table 4 reveals that taking farming as major occupation, gender (being a male), belonging to cooperative society or savings group, household size, acquisition of farmland by purchase, and ease of getting farm investment

loans had positive significant influences on a farm household in deciding to take farm investment loans in Abia State, Nigeria. Having positive significant influences means that existence of these variables in the farm households strongly compelled the household to decide taking loans for investment in farm business. Male farmers had been favoured more by lenders in farm financing markets while women constitute the vulnerable gender that have enjoyed some level of social backwardness (Anjugam and Ramasamy, 2007; Hazarika, and Guha-Khasinobis, 2008).

Table 4. Maximum Likelihood Estimates of First-Stage Probit Model Explaining Household Decisions to Take Loans for Farm Investment in Abia State, Nigeria

Variable	Coefficient	Standard Error	T-statistic
FS	1.423	0.991	1.436
ED	-3.354***	0.812	-4.131
OC	0.788**	0.427	1.845
AC	0.226	0.473	0.478
SV	-0.732**	0.425	-1.722
HS	1.325**	0.645	2.054
AG	0.999	0.952	1.049
GD	0.998***	0.447	2.233
CP	0.726***	0.287	2.523
DC	-1.314**	0.661	-1.924
TC	-1.038***	0.466	-2.227
LA	3.146***	0.683	4.606
EG	4.222***	1.025	4.119
OF	-0.699	0.482	-1.490
Intercept	3.411***	0.942	3.621
Log-Likelihood ratio	77.134		
R-Squared	0.712		

Dependent variable (D) = Takes loan for farm investment, ** significant at 5.0%; *** Significant at 1.0%.

Source: Field Survey, 2011

Other factors namely, level of education of household head, amount of household savings, distance from farmers' home to source of loan, and interest charges on the loans had negative but significant influences in decisions to take farm credit in the study area. This means that the more these variables increased at the time of making this decision, the less the household were compelled to take any farm investment loans. Level of education of household head showed negative influence on decision to take farm investment loans and was in line with previous studies (Nguyen, 2007; Shah, *et. al.*, 2008).

A farm household having more savings has less urge to taking farm loans from outside. This is because the household savings can be used in self-financing of fixed investments and loans used to fund working capital. This practice of using personal or household savings to fund start-up capital helps to conjure commitment and feeling of ownership and financial discipline to a farm proprietor. Distant sources of farm credit dissuade investors from taking loans since repeated visits to such loan sources mean more expenses in transport fares and travel logistics. When a source of credit is near to a

borrower the better for him/her to access the credit; and the lender is in a better position to supervise the use of the credit (Obike, 2013). Interest charges on loans are prices paid by borrowers for using the facility. In all normal economic goods such prices are inversely related to volume of the goods (loan) and the willingness to have the facility.

Six of the above factors (level of education, gender, being member to cooperative society, interest charge, land acquisition method, and ease of getting the loan) were very highly ($p < 0.01$) significant determinants of decisions to fund farm investments with loans. The other factors (farming as major occupation, household savings, household size, and distance of farmers' home to source of credit) were significant but at a relatively lower alpha level of probability ($P < 0.05$).

(b) Factors that influenced Decision to use Loans for Consumption Expenditure or Other Investment

Proprietor withdrawal decisions are all decisions made by a proprietor against the original intention for a loan facility. These decisions have amounted to diversions in the use of farm credit (Oke *et. al.*, 2007; Ogunfowora, *et. al.* 1972). Table 5 revealed that taking farming as major occupation, payment of school fees for children of farmers, and amount of credit repaid by a

farm household positively determined proprietor withdrawal decision of small-scale farmers. Other factors such as household size, being member of cooperative society or savings group, interest charges on loan, household off-farm income, and household savings had negative influences on proprietor withdrawal decisions.

Households that took farming as their major occupation have no other source(s) of cash income especially during period between planting and harvesting and as such resort to using part of their loans to fund household consumption, pay school fees of their children, and meet other social obligations requiring cash expense. Mores so, households that have almost completed repaying their loans spend from their farm proceeds with much ease and confidence. Households that are large, and who decided to take farm loans spend quite a large portion of such loans in funding basic needs such as food, clothing, healthcare and shelter repairs.

All these factors (with positive or negative influences) were very highly significant ($P < 0.01$) in determining behavior of farm proprietor to withdrawing part of investment loans to fund family living expenses or withdrawing part of its returns to fund other non-farm investment in the study area.

Table 5. Maximum Likelihood Estimates of First-Stage Probit Model Explaining Household Head Decisions to Use Sourced Farm Loans for Consumption Expenditure/Other non-farm Investments in Abia State, Nigeria

Variable	Coefficient	Standard Error	T-statistic
FS	-1.721	0.923	-1.865
ED	-0.374	0.864	-0.433
OC	0.787***	0.329	2.392
AC	0.226	0.473	0.478
HS	-0.935***	0.374	-2.500
AG	0.999	0.952	1.049
GD	0.987	0.651	1.516
CP	-0.718***	0.287	-2.502
TC	-1.234***	0.361	-3.418
OF	-0.879***	0.312	-2.526
SF	3.247***	0.921	3.526
CR	0.874***	0.346	2.526
SV	-1.674***	0.442	-3.787
Intercept	-2.217**	0.953	-2.326
Log-Likelihood ratio	74.431		
R-Squared	0.773		

Dependent variable (D) = Use farm loan to fund household consumption/other non-farm investment,
 ** significant at 5.0%; *** Significant at 1.0%.

Source: Field Survey, 2011

CONCLUSIONS

The study allowed to draw to the following conclusions:

Household-based factors influenced decisions to borrow money to fund farm investments. Decisions to borrow to fund farm investments were very highly influenced by level of education, gender (being male), membership of cooperative society, interest charge, land acquisition method, and ease of getting loan. Other significant factors included farming as major occupation, household savings, household size, and distance of farmers' home to source of credit. Taking farming as major occupation, gender (being a male), belonging to cooperative society or savings group, household size, acquisition of farmland by purchase, and ease of getting farm investment loans had positive significant influences while the others had negative significant influences on a farm household decision to taking farm investment loans in the study area.

Proprietor withdrawal decisions were positively influenced by household level variables like taking farming as major occupation, payment of school fees for children of farmers, and amount of credit repaid by a farm household. Other factors are household size, being member of cooperative society or savings group, interest charges on loan, off-farm income, and household savings. These had negative influences on proprietor withdrawal decisions. All factors that influenced proprietor withdrawal decisions impacted very highly ($P < 0.01$).

Recommendations:

Small-scale farmers should strive to form their businesses with their personal or household savings. They should not borrow their start-up capital for investments like building initial livestock pens, purchasing of first set farm tools, small machines and starter packs from outside their households. However, as their farm businesses grow they can take loans from convenient outside sources to expand their businesses or meet their working capital needs. This practice of using personal or household savings to fund start-up capital helps to conjure commitment

and feeling of ownership and financial discipline to a farm proprietor.

To curb the ugly practice of loan diversions, farm owners should cultivate spirit of thrift, put some hours to paid off-farm works to earn additional income, and raise and manage moderate sized households. They should belong and attend to some financial management training organized by their cooperative societies.

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