

Assessment of Women Farmers' savings capacity in Egbeda Local Government area of Oyo State, Nigeria

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Abstract

The assessment of women farmers' savings capacity in Egbeda Local Government Area of Oyo State, Nigeria was studied. Two stages random sampling technique was employed in the selection of 120 respondents. Well structured questionnaires were used to collect primary data used for the study. Data collected were analysed using descriptive and inferential statistics. Results of the study showed the average age of women farmers in the study area to be 46 years with standard deviation of 9.493. 69.2% of them were married and have had an average of about 17.5 years of farming experience with standard deviation of 5.351. They have ₦ 32,416.7 as average annual farm income and ₦ 36,018.5 as average off-farm income. Similarly, cash was identified as the major pattern women farmers save money with financial self-help as the major (65%) form of cash savings while livestock keeping was the major (84%) form of non-cash savings in the study area. The result equally revealed that level of income was the major (83.3%) determinant of the respondents' savings capacity. The study through factor analysis identified 3 major constraints affecting their savings capacity as 1) Institutional problems 2) Farmer-related problems and 3) Bank-related problems. The result of multiple regression analysis showed Adjusted R² of 76.9% and equally revealed that socioeconomic characteristics of women farmers had significant effect on their savings capacity at 5% significance level and with p-value (0.011) < 0.05. Bank-related problem was identified as one of the women farmers' constraints and as such, it is recommended that Policy makers should establish and strengthen links between formal and informal financial institutions so as to ease the problem of bureaucracy in their activities. That way, the women are encouraged to save money in the institutions which is a safer way of keeping money.

Keywords: Farm income, Determinants, Off-farm income, Savings capacity, Women farmers,

Introduction

Women play an active part in the decision-making processes in the family. They help to decide what crops to grow, the type of food to be eaten, the seeds and planting stock to be selected etc. They also play an active part in the feeding and care of farm animals such as poultry, sheep, goat and cattle. Women represent a majority of the population and so it is only rational that this majority should be given its proper place in agriculture (Akubulo, 2002). Ownership of financial assets is an important component of the path towards women's economic

empowerment and savings serve as the most reliable and most convenient way to cushion against economic shocks while providing a way for women to accumulate the means to purchase productive assets. A woman with her own savings may be able to exercise more bargaining power and decision-making capabilities within the household which could allow her to accumulate individual wealth, invest in her children and nutrition (Cheryl *et al.*, 2012).

Savings of an individual and households also form a substantial part of capital accumulation in any given society

and everyone at one point in time save something of value (Bime and Mbanasor, 2011). Ezike, (1999) reported that savings means different things to different people. To some it means putting money in the bank while to others, it means buying stocks or contributing to a pension plan but to economists, savings means only one thing: consuming less out of a given amount of resources in the present in order to consume more in the future. Savings therefore is the decision to defer consumption and to store this deferred consumption in some form of asset.

However, rural women play a vital role in the economy and as such, the importance of their savings cannot be overemphasised as part of the economy builder. Women's savings is also part of the savings of the economy for the maintenance of strong and sustainable growth in the rural world particularly Nigeria (Nuhu *et al.*, 2015). In developing countries like Nigeria, there seems to exist a gap in the case of investment and production due to low rate of domestic savings which can lead to low output. Therefore, saving is undeniably considered a strategic variable in the theory of economic growth; determining both individual and national wellbeing. However, savings level in some parts of Africa, particularly rural areas is very low and little is known empirically about its patterns and determinants (Girma *et al.*, 2013). One of the predominant factors responsible for the stagnation of the agricultural sector in Nigeria is low saving capacity of farm families which may be as a result of low income (Osaka, 2006).

Furthermore, despite the involvement of rural women in saving, their saving capacity seems not to have been well represented. Therefore, it becomes

pertinent to assess the women farmers' savings capacity in the study area and may possibly become a generalised indicator in Nigeria.

In order to address this issue, this research specifically

- (i) Described the socioeconomic characteristics of the respondents
- (ii) Identified the savings pattern of the respondents
- (iii) Identified the forms of savings of the respondents
- (iv) Identified the major determinants of savings capacity of the respondents and
- (v) Identified constraints to their savings capacity in the area.

Null hypothesis of the study is that socioeconomic characteristics of women farmers have no significant effect on their saving capacity in the study area.

Methodology

Study area

The study was conducted in Egbeda Local Government Area of Oyo state, Nigeria. It is located within latitudes 7°21'N -8°00'N and 4° 02'E. The Local Government Area was created in 1989 with the headquarters situated at Egbeda. It covers a landmass of 185.508 square kilometers with a population density of 1,722 persons per square kilometer. The 2010 estimated population figure of the Local Government is put at 319,388 people based on a growth rate of 3.2 percentages using 2006 census figure. The Local Government Area share boundaries with Osun state to the East, Ibadan North Local Government Area to

the North, Ibadan North East Local Government Area to the West and Ona Ara Local Government to the South. It is endowed with a wide expanse of land for the production of livestock and arable farming. About half of the Local Government Area is rural in nature and is a suburb of Ibadan metropolis. Subsistence farming is common among the people and the fertile soil and climate favour the growing of maize, cassava, yam, cocoa, oil palm, vegetables and citrus fruits.

Sampling procedure and sample size

The study used a two-stage sampling procedure. In the first stage, Six (6) communities namely (Erunmu, Awaye, Ibiti, Alaaka, Paku and Akitikanrin) were purposively selected from the eleven (11) communities due to the predominance of women farmers in the communities. Similarly, in the second stage, a list of registered women farmers were obtained from the Local Government Headquarters and from this list, 5% of the population of each community were randomly selected with Erunmu having 25 respondents, Awaye having 20 respondents, Ibiti having 20 respondents, Alaka having 20 respondents, Paku having 15 respondents and Akitikanrin having 20 respondents which made a total of 120 respondents.

Data analysis

Primary data obtained through the use of questionnaires were used for this study. Both descriptive and inferential statistics were used to achieve the objectives of this study. Descriptive statistics were used to realise objectives i, ii and iii while inferential statistics such as factor analysis and multiple regression analysis were used to achieve objective v and the hypothesis of

the study respectively. The hypothesis of this study was tested at 5% significance level.

Model specification

Multiple regression analysis was used to analyze the effects of socio-economic characteristics on women farmers' saving capacity in the study area. The postulated model expressing the effects of the independent variables (socio economic characteristics) on the dependent variable (savings capacity) is expressed as:

$Y =$ Dependent variables (saving capacity)

$X_1 \dots X_n =$ Independent variables (socio-economic characteristics)

$Y = f(x_1, x_2, x_3, x_4 \dots Et)$ implicit form(1)

$Y = a_0 + a_1x_1 + a_2x_2 + a_3x_3 + a_4x_4 + Et$ explicit form

(2)

Where

$Y =$ saving capacity (?)

$a_0 =$ coefficient

$X_1 =$ Age (years)

$X_2 =$ Marital status (dummy)

$X_3 =$ Education level (years)

$X_4 =$ off-farm income (?)

$X_5 =$ On-farm income (?)

$X_6 =$ farming experience (years)

$Et =$ Error term.

All the assumptions of the ordinary least squares method were observed. The existence and severity of correlation among independent variables was tested using the Pearson Correlation Analysis and t-test at different significance levels. To know whether multicollinearity is causing problem in the regression model, the standard errors of the coefficients were examined. Several coefficients with high standard errors were dropped in agreement

with multicollinearity source of problem as posited by (Egwu and Nwibo, 2014).

Results and Discussion

Socio-economic characteristics

The socio-economic characteristics of the women farmers examined were age, marital status, household size, level of education, occupation, farming experience, farm size, annual farm income and annual off-farm income. The results of the analysis are presented in Table 1.

The results on the socioeconomic characteristics are presented in Table 1. The results show that a high percentage (30.8%) of the respondents fall within the age bracket of between 41 and 50 years with a mean age of 46 years and could be considered as the active, productive and energetic age range. This corroborates the results of Akubuilu (2002) who reported that the age of rural women spread across the various age categories with significant proportion of them above 40 years of age. Moreover, the results revealed that majority (69.2%) of the women are married. This implies that great importance is attached to marriage and obviously married women participate in self-help groups which help them to save in order to invest for the future. This is in line with the findings of Nuhu *et al.* (2015) who affirmed that substantial members of financial self-help and cooperative societies are formed by married women.

Also, the results on household size showed that the mean of the respondents' household size is 7 persons which indicate a large household size in the study area. This implies that as a result of the large household size, the women are likely tend to save less since the needs of the members of the family have to be met. This corroborates

the findings of Egwu and Nwibo (2014) who reported that an increase in household size leads to an increase in consumption expenditure which does not favour an increase in saving capacity of the rural women farmers especially when in most cases, they complement the contribution of their husband in the upkeep of the family.

Furthermore, findings on the level of education as presented in Table 1 shows that the respondents with no formal education (55.8%) outnumber those who are educated i.e. those who had secondary education at least (6.7%). This situation may impact negatively on the level of adoption of new technologies and level of productivity which would in turn translate to decreased income and lower savings tendency. This agrees with the findings of Egwu and Nwibo (2014). The authors reported that with low level of literacy, women may not be able to utilise formal savings mobilisation techniques due to the complex procedures involved in banking. Equally it was observed from this study that farming is not the only occupation in the area as some people are involved in other forms of occupation. A larger percentage (54.2%) of the respondents though had farming as the only source of livelihood. This does not translate into livelihood diversification and hence lesser income earned and a lower tendency to save. About 2.5% are involved in farming and work in the civil service as well. This implies that farming is the major occupation of women in the study area. This is in line with the reports of Alimba (2014) whose findings show that farming is the main occupation of rural people. The mean age of the women farmers in the study area was observed to be 46 years. The result on farming experience shows that the respondents have had up to

Table 1 Frequency distribution of socio- economic characteristics of Women Farmers

Variables	Frequency n=120	Percentage	Mean	Standard deviation
Age				
20-30	12	9.9		
31-40	32	26.6		
41-50	37	30.8	46 years	9.493
51-60	26	21.8		
61 and above	13	10.8		
Marital status				
Married	83	69.2		
Single	43.3			
Widowed	27	22.5		
Divorced				
Household size				
1-5	31	25.7		
6-10	87	72.5	7 persons	2.389
11 and above	2	1.6		
Level of education				
No formal education	67	55.8		
Primary education	36	30.0		
Secondary education	8	6.7		
tertiary	9	7.5		
Occupation				
Farming alone	65	54.2		
Farming and civil service	3	2.5		
Farming and trading	42	35		
Farming experience				
1-10	46	38.3		
11-20	40	33.4		
21-30	28	23.3	17.5 years	5.351
31-40	6	5		
Farm size				
1-2	79	65.8		
3-4	41	34.1	2.2 hectares	0.345
Annual farm income				
#50,000- #100,000	65	54.2		
#100,001- #150,000	26	21.7	32,416.7	7458.312
#150,001- #200,000	20	16.7		
#200,001 and above	9	7.5		
Annual off- farm income				
Below #50,000	43	79.7		
#50,000- #100,000	7	13.1	36,018.5	8159.221
#100,001- #150,000	3	5.6		
#150,001- #200,000	1	1.9		

Source: field survey, 2018

17.5 years of farming experience on the average and average farm size of 2.2 plots of land. This implies that majority of the respondents had small farm size and they are likely to have low income which results in low savings. This corroborates the findings of Ike and Idoge (2006) who reported that the larger the farm size of a household, the higher the propensity to save.

The result of annual farm income shows that more than half (54.2%) of the respondents earned between ₦ 50,000 and ₦ 100,000 annual farm income with an average annual farm income of ₦ 32,416.7. Similarly, the result of annual off-farm income showed that highest percentage (79.7%) of the respondents earned less than ₦ 50,000 annually as off-farm income with ₦ 36,018.5 average off-farm income. This implies that majority of the women farmers in the study area earn low annual income from both on-farm and off-farm income.

Patterns and forms of Savings of the Women Farmers

This study evaluated two (2) major patterns through which women farmers in the area under study save money and equally identified forms by which they save. The results on patterns and forms of savings are presented in Table 2. The results show that a higher percentage (75%) of the respondents save in cash than non-cash forms. This implies that cash is the major form which women farmers in the study area save. Similarly, financial self-help at 65% was the major form of cash savings in the study area while livestock keeping at 84% was identified to be the major form of non-cash savings the women farmers practise in the study area. The women farmers' adoption of financial self-help and keeping of livestock

as the major cash and non-cash forms of savings respectively may be attributed to the bureaucratic bottleneck involved in banking, the attitude of financial intermediaries and distance from residence to the bank. This report is similar to the findings of Egwu and Nwibo (2014) who reported that financial intermediaries do not encourage farmers by the low interest paid on savings. The farmers are of the opinion that livestock species are productive assets with high returns on investment if properly managed.

Determinants of Savings Capacity of the Women Farmers

The results in Table 3 show that the larger percentage (83.3%) of the respondents identified level of income as the major determinant of their savings capacity. This implies that the level of income has a major role in determining the savings capacity of the women farmers in the study area. This is line with the findings of Gabriel (2012) who reported that the household income is a strong determinant of savings.

Factor Analysis

Factor analysis was used to identify the factors limiting savings of respondents in the study area. The purpose was to identify new factors and their interpretation boils down to identifying the variables that load high for its factor. Nwofoke (2012) developed a simple rule of thumb that variables with coefficient of 0.30 or more have high loading and may be used in naming a factor. This rule has a general implication in all cases regarding the factor analysis. The results are shown in Table 5. After careful examination of these factors, factor 1 was named institutional problem because majority of the variables that

Table 2 Frequency analysis on patterns and Forms of savings of the respondents

Patterns	Frequency and percentage	Forms	Frequency and percentage
Cash	90(75%)	Bank	25(20.8%)
		Financial self-help	70(65%)
		Cooperatives	1(0.8%)
		House saving	16(13.3%)
Non-cash	30(25%)	Livestock keeping	101(84%)
		Storage of grains	19(16%)

Source: Field Survey, 2018

Table 3: Frequency distribution on determinants of savings capacity of the Women Farmers

Variables	Major	Minor	Not	Rank
Level of income	100(83.3%)	12(10%)	8(6.7%)	1 st
Household size	83(69.2%)	14(11.7%)	23(19%)	2 nd
Marital status	74(61.7)	22(18%)	24(20%)	3 rd
Sources of Income	42(35%)	37(30.8%)	41(34.2%)	5 th
Distance or nearest saving institution	47(39.2%)	26(21.7%)	47(34.2%)	4 th
Distance or nearest local markets	15(12.5%)	36(30%)	69(57.5%)	5 th

Source: field survey, 2018

Note: 1st is the major determinant, while, 5th is the least.

loaded high (0.3 or more) are related to institutional problems. These variables include low income, lack of access to bank or financial services, distance of nearest bank, bank procedures in opening bank accounts, fear of bank failure and low farm output. Therefore according to the response of the respondents, lack of access to banks is the highest problem. Hence highest value of 0.655.

Factor 2 was named farmer-related problem because majority of the variables that loaded high were related to farmers. The variables include high consumption rate out of available income and lack of skills due to low level of literacy, formal education and health status. High consumption rate of the available income is

the major problem in factor 2 according to the women farmers' responses and it has the highest loading value of 0.680.

Factor 3 has high loading variables as bank procedures in opening bank accounts, delays involved in depositing and withdrawing savings from financial institution and distance of nearest bank. Hence, they were named bank-related problems with lack of skills due to low level of literacy and formal education as the major problem of the women farmers with the highest loading value of 0.585.

From the results of the factor analysis, 3 basic factors were identified as the major constraints to savings by women farmers in Egbeda Local government Area of Oyo State and they were critically explained and

Table 4: Factor Analysis on constraints to savings capacity of women farmers in the study area

Variable	Institutional related problem	Farmers' related problem	Bank related Problem
Low income	0.389	0.25	-0.029
Lack of access to bank financial services	0.655	-0.029	0.147
Distance or nearest to bank	0.594	-0.099	-0.054
Low income	-0.027	-0.436	0.021
Bureaucracy in opening bank account	0.468	-0.329	0.390
Low interest paid by bank on	0.004	-0.633	0.100
Fear of bank failure	0.656	0.215	-0.193
Theft	0.232	-0.035	-0.334
High consumption rate of available income	0.014	0.680	0.066
Lack of skills due to low level of literacy and formal education	0.183	0.550	0.185
Health status	-0.04	0.436	0.477
Distance or nearest to market	-0.026	0.274	0.346
Low farm output	0.400	0.208	-0.433

Source: field survey, 2018

farmer-related problem was the dominant problem of the women farmers in the study area.

Effects of Socio-Economic Characteristics on Savings Capacity of Women Farmers

The results in Table 5 show the effects of socioeconomic characteristics on the savings capacity of the women farmers in the study area as analysed with multiple regression analysis. It shows adjusted R² value of 0.769 which implies that socioeconomic characteristics of the women farmers included in the regression model have about 76.9% influence on their savings capacity in the area. Similarly, age, level of education, occupation, farming experience, farm size, annual on-farm

income and annual off-farm income all had positive coefficients. This implies that the level of savings of the respondents has direct or positive relationship with these socioeconomic variables and conformed to the apriori expectation of the study. On the other hand, marital status and household size had a negative coefficient implying that there is an inverse relationship between these socio-economic variables and savings capacity of the women farmers in the study area. This implies that an increase in the above socioeconomic variables, marital status and household size decreases the women farmers' savings capacity and vice versa.

Furthermore, P-value (0.011) of the result was observed to be less than 0.05 significance level. It was therefore

Table 5: Multiple Regression Analysis on the effects of socio-economic characteristic of women farmers on their savings capacity in Egbeda Local government Area of Oyo state.

Variable	Coefficient	St-Error	t	Sig
Constant	-13539.806	100163.196	-0.135	0.893
Age	535.211	1815.124	0.95	0.769
Marital status	-21967.892	14128.160	-1.555	0.127
Household size	-7851.843	4993.554	-1.572	0.123
Level of Education	26182.106	15562.554	1.682	0.010*
Occupation	11632.893	23574.389	0.493	0.624
Farming Experience	1876.004	1856.451	1.011	0.318
Farm size	12686.526	24207.571	0.524	0.603
Annual Farm Income	0.050	0.335	0.150	0.020**
Annual off farm income	0.155	0.387	0.400	0.040**
Adjusted R ²	0.769			
F-ratio	1.491			
P-value	0.011			

Source: Field survey, 2018

Note: * = significant at 1%, ** = significant at 5%

concluded that socioeconomic characteristics of women farmers in the study area have significant effect on their savings capacity.

Conclusion and Recommendations

This study shows that women farmers are within the active age of 46 years with farming alone as their predominant occupation. ₦ 32,416.7 is the mean farm income and ₦ 36,018.5 is non-farm income as identified by the results of socioeconomic characteristics. Similarly, cash is the major pattern of savings with farmers' self-help group the dominant form of cash savings and keeping of livestock as the dominant non-farm form of savings. The level of income of the women farmers is the major determinant of their savings capacity in the study area which implies that the higher their income, the higher their savings. Also, it could be deduced from this study that farmer-related problems such as high consumption rate of the available income is the dominant constraint on the respondents' savings capacity in the study area. It can therefore be concluded that the socioeconomic characteristics of women farmers in Egbeda Local Government Area have a significant effect on their savings capacity.

It is recommended therefore that since level of income of the women farmers is the major determinant of their savings capacity in the study area, there should be awareness on the importance and benefits of income diversification attached to savings in order to encourage the women farmers to cultivate the culture of saving. Bank-related problem was identified as one of the women farmers' constraints and as such Policy makers should establish and strengthen links between formal and informal financial

institutions so as to ease the problem of bureaucracy in the financial institutions' activities to the women in order to encourage them to save in form of cash in financial institutions which is safer in the long run. Lack of skills due to low level of literacy and formal education was identified as one of the constraints of women farmers. Therefore, government and non-governmental agencies should try to bridge this gap by organising farmers' training, adult literacy and capacity building of farmers. Also, special attention should be given to the girl child education in rural areas so as to increase their level of adoption of new technologies and in turn make good yield which will lead to higher income.

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