

JOURNAL OF ECONOMIC AND FINANCIAL STUDIES



Journal Of Economic And Financial Studies

A publication of Department of Economics & Banking and Finance
Adekunle Ajasin University (AAU), Akungba Akoko, Ondo State, Nigeria.

VOL. 2 NUMBER 1 JUNE 2005

INFORMAL SAVINGS AND ECONOMIC STATUS
OF RURAL WOMEN IN NIGERIA
OGUNRIOLA OLURANTI ET AL

ABSTRACT

This paper examined the nature and extent of informal savings and credit among women micro-entrepreneurs in five rural communities of Ado-Odo/Ota Local Government Area of Nigeria. It is a household study of 275 women engaged in various rural on-farm and off-farm activities. Our study has shown that informal savings in form of Ajo/Esusu in its various forms (fixed fund and rotating fund) is popular among the rural women of Ado-Odo/Ota Local government of Ogun State. Participation rate is as high as 78% while average monthly saving mobilized is about N708, 500 from our respondents. In addition to own savings, some of our respondents are able to source credit in form of loans from their savings associations. These savings and credit are applied to various developmental and consumption uses. Participants in these informal saving schemes reported improved business development and incomes. Our recommendation that necessary environment be created for the intervention of private, not-for-profit semi-formal financial intermediaries, will go a long way in facilitating domestic credit mobilization and dispersion, just like Grameen Bank in Bangladesh. This initiative, unlike the past corrupt-ridden and ineffective government-operated organizations, is expected to support the activities of informal savings associations, create a better link with formal financial system and hence, help to improve rural women-owned enterprises, as well as their status in Nigeria.

1. INTRODUCTION

Prior to the state of distress in the formal financial system in Nigeria, not much attention was paid to the role of the informal financial sector in capital formation. Evidence shows that given the high level of illiteracy and financial underdevelopment of the economy, a lot of the people use informal finance as a medium of financial intermediation. In addition, efficient financial intermediaries that can mobilize savings and link savers and borrowers especially in rural areas are far from being adequate.

Ogunriola Oluranti, Ewetan O. O, and Agboola F.A.O (Mrs) are lecturers in the Covenant University, Sango Ota, Ogun State

In different studies, bank density in Nigeria was put at 64,000 people and 47,869 people per bank branch in 1991 and 1999 respectively (Ogunrinola, 1991; Magbagbeola, 2003). Although the Structural Adjustment Program was expected to redress the previous failures of development efforts in general, and enhance rapid financial development in particular, evidence abounds that there was little or no emphasis on the traditional institutions. At present, domestic savings mobilization in Nigeria is concentrated on the rather small-based formal money markets to the utter neglect of age-old traditional and informal money markets (Ogunrinola, 1990).

Between 1989 and 1997 the operating environment in the formal money markets became unstable due to civil disturbances, industrial unrest, high inflation, negative real interest rates and low public confidence mainly as a result of distress. The distress led to the liquidation of many commercial and merchant banks and eroded public confidence in the Nigeria banking system. This development led to a sharp drop in the formal banking habit and thus forcing a lot more people to patronize the informal financial sector which until lately has not been accorded due recognition in the development process of the developing economies.

This utter neglect could be linked to the fact that these economic entities and their financial transactions are not directly open to control and regulation by fundamental monetary and financial policy instruments. Informal finance therefore consists of borrowing and lending among individuals and firms that are not registered with the government as financial intermediaries and are not subject to government supervision. It is, however, worthy of note that the sector is now being accorded recognition in the development process of the developing economies.

Until, perhaps, recently, little attention has been paid to the large rural sector even in the various national development plans. The neglect of the rural areas has its attendant consequences which include, the near absence of social services and infrastructural facilities, and inadequate banking services in the rural areas (Atoyebi, 2003).

Recent policy of government, however, has shifted emphasis from urban to integrated rural development. Rural development must encompass, inter alia, improved distribution of income, greater rural output, greater employment opportunities for the rural dwellers, inculcation of banking habit, mobilization of rural domestic savings and channeling such resources into productive investment projects. The rural dwellers must also have access to credit facilities in the form of loans and advances. The informal financial sector will thus be a sure vehicle for rural development, being able to create opportunities for rural savings, credit, investment and greater rural output and employment.

The basic feature of the informal financial sector is that market participants engage in the saving-investment process on an informal basis. There are a variety of people, from widely varying educational and occupational backgrounds, involved in the informal sector. A lot of these people appear to be too poor to generate funds from their internal savings to finance their investment needs.

The informal financial markets provide an alternative external finance to meet the consumption and investment needs of these categories of people. Such markets are often made up of different savers and lenders such as moneylenders, rotating savings and credit associations, thrift cooperatives and credit societies, *esusu* groups, merchants, relatives and friends (Ukpong, 1998).

In a developing country context, emphasis on rural finance reflects the acknowledgement that saving services, and not just loans may help to improve the well-being of the poor in general and women in particular (Rebecca, Vonderlack and Schreiner, 2001). Indeed, despite the pervasive belief that micro-finance helps women, few programs have developed concrete ways to meet the distinct demand of poor rural women for saving services. The aim of this paper therefore is to examine the extent of participation of rural women in informal financial market and the economic impacts of such participation on the micro-enterprises of such women. The paper is organized as follows: Section 2 gives the conceptual framework and a brief survey of literature, sections 3 and 4 discuss the methodology of the study and results of our survey, and section 5 concludes the paper.

2. CONCEPTUAL FRAMEWORK

Financial intermediaries include financial institutions and the capital market. Financial institutions can further be divided into formal and informal banking. Formal banking institutions constitute mainly commercial banks while informal banking institutions include credit/saving unions, self-help organizations, and other credit associations. Capital market includes bond and equity, which are in the domain of formal financial services (Donald, 2000). The major function of an efficient financial system is to intermediate in the mobilization of investible funds from the surplus sector to the deficit sector or productive use for investment (Oloyede, 1998).

Financial intermediaries fulfill their function by taking deposits from savers and lending such funds to investors. Mobilization of savings is the process of persuading savers to put their savings in form of financial assets so that they can be channeled to other users of funds. The objectives of mobilization of savings therefore are to provide incentives for savers to use their

savings productively. These incentives include interest, dividends and profits provided by various channels.

Financial intermediaries act as middlemen between those who have funds but do not want to invest by themselves and those who do not have funds but want to make the investment. They provide indirect means of transferring funds from savers to borrowers or investors (Danold, 2000). The theory of financial intermediaries depends on the relationship between the savers and investors. In a completely underdeveloped financial sector, there will be no transfer of savings from savers to investors. Investors rely mainly on their own savings and this denies physical investment, hence investible resources are lying un-utilized.

In a study of small-scale industries in Nigeria conducted by Branigan (1991), it was discovered that about 50% of the enterprises surveyed could not receive external finance, while 77% indicated that lack of access to financial resources was their major problem. He reported that over 80% of the SME's surveyed found it difficult to access finance at the banks and other financial institutions due to stringent credit policies and collateral requirements. Anao (1980) identified both formal and informal modes as financing strategies for SME's. The informal mode includes local moneylenders, "*Esusu*" etc; while the formal ones include loans from financial institutions. He however noted that SME's have over the years relied on self-financing, which were inadequate for investment.

In most countries, regions and sectors, the majority of business owners are male (65%-75%). However there is increasing evidence that women as micro and small entrepreneurs are key target groups for financing programmes in order to achieve poverty-alleviation and empowerment, especially for those in the rural areas. In this regard, the Zimbabwean government, since independence in 1980, has been religiously committed to gender equality. In 1992, the Department of Women's Affairs was restructured. Micro enterprise development programmes became a major focus of poverty alleviation policies. The number of savings clubs expanded rapidly at 1,000 per year as Konrad Adenauer Foundation, among other NGO's, started women-targeted credit programme on a pilot basis in Matabeleland and Mashonaland. The purpose of the programme was to extend loans to savings clubs, which run viable projects. Similarly in Bangladesh, the Grameen Bank model, which is a micro-finance organization focusing on the needs of poor women, is another worthy example that ought to be emulated in Nigeria. Unfortunately, most studies have not focused on the finance need and economic empowerment of women. This study intends to bridge this yawning gap.

3. METHODOLOGY OF STUDY

3.1 Description of Study Area and the Data Collection Exercise

The main argument of this study is that the rural sector of developing nations is usually generally neglected in the area of provision of formal financial services. Various arguments have been put up to justify such neglect. Some of these are: the high incidence of rural poverty (Smith and Todaro, 2004) which makes savings mobilization to be too low to justify the overheads of profitably running a formal savings institution; the cost of loan administration to small borrowers; the low educational level of rural dwellers making it difficult for them to cope with the necessary paper-works required for opening and running formal bank account and so on. More importantly is the fact that women entrepreneurs and their micro-enterprises are usually neglected in most aspects of life whether rural or urban.

However, in spite of the prevailing rural poverty and the attendant neglect of the rural sector, research evidence has shown that rural dwellers have always desired saving and credit institutions that can meet their needs. This study, therefore investigated the savings habit as well as the type of informal finance prevalent in our study area with a view to quantifying the economic importance of such savings among women, and also to estimate its impact, if any, on the economic status of rural women.

Our study area is the Ado-Odo/Ota local Government of Ogun state, Nigeria. Our research instrument is the questionnaire designed to elicit the required information from our target audience in five rural towns/villages chosen for the study. The villages are Alapoti, Alagbaa and its adjoining villages, Atan, Iju, and Onibuku. Our study was a household type, targeted at investigating, among others:

- the perception of rural women of the need for and participation in informal saving against the backdrop of prevalent rural poverty, and non-availability of formal financial institutions that should promote savings and banking habit;
- the type of savings channel used by those that believe that saving is not only necessary but are in fact participating in a saving scheme;
- the possibility or otherwise of getting a loan for business and/or personal needs with the informal savings club being used by our respondents;
- the rate of interest on loan received for those that have obtained loan;
- the utilization pattern of loan and payoff received from past savings, as well as payoff and/or loan to be received;
- the assessment of respondent regarding own welfare enhancement or otherwise from participation in informal savings scheme.

A questionnaire for this purpose was designed and trained enumerators, one for each village, were sent out to administer the questionnaires. To enhance the success of data collection exercise, we ensured that the enumerators were recruited from the communities intended for survey and deliberate efforts were made to employ the services of women. Where this was not possible we used the services of male enumerators.

The data collection exercise took place in the months of April and May, 2005. A target sample size of 300 women from the 5 communities was planned, but we succeeded in obtaining useful information from 275 respondents, giving us a response rate of 92%.

3.2 Analytical Technique and Model Formulation

In analyzing our data, summary statistics like frequency distribution, mean, cross-tabulations and percentages were used in summarizing our findings with respect to the economic status of rural women participating in informal finance. In addition to these, the savings function (Mincer, 1973; Okurut, et al 2004) was specified and estimated by the use of Ordinary Least Squares (OLS) approach. This model made use of several explanatory variables which are both continuous and dummy.

The Savings Model

We identified the socio-economic factors that play a vital role in determining the informal saving behaviour of rural women. Our basic model was thus of the form:

$$S_j = \beta_0 \prod X_{ij}^{\beta_i} \cdot e^{\sum \alpha_j Z_{ij}} + \mu_j \quad \dots \dots \dots (1)$$

Where:

- j stands for an individual
- i stands for a variable; and thus X_{ij} stands for the i^{th} continuous variable for the j^{th} rural informal woman/saver.
- S_j stands for the amount of monthly savings by individual j; and
- Z_{ij} stands for the i^{th} dummy variable for the j^{th} individual
- μ_j is the random stochastic term.

Linearising equation (1) by taking Logarithms on both sides we have;

$$\ln S_j = \ln \beta_0 + \beta_1 \ln X_{1j} + \beta_2 \ln X_{2j} + \dots + \beta_n \ln X_{nj} + \alpha_1 Z_{1j} + \alpha_2 Z_{2j} + \dots + \alpha_n Z_{nj} + \ln \mu_j \quad \dots \dots \dots (2)$$

Expanding (2) and letting $\ln \beta_0 = \beta_0$, $\ln \mu_j = v_j$; we have;

$$\ln S_j = \beta_0 + \beta_1 \ln X_{1j} + \beta_2 \ln X_{2j} + \dots + \beta_n \ln X_{nj} + \alpha_1 Z_{1j} + \alpha_2 Z_{2j} + \dots + \alpha_n Z_{nj} + v_j \quad \dots \dots \dots (3)$$

Equation (3) is the one estimated using the ordinary least squares approach.

TABLE 1: DEFINITION OF VARIABLES

S/No	Original Variable	Derived Variable
1	Ln Age (years)	Log of Actual Age of entrepreneurs
2	Ln Income	Log of Actual Earnings per month
3	Loan Demand	Loan Ask Dummy=1, if ever applied for loan, 0 otherwise
4	Ln Year of formal educ	Log of Actual in years spent in school
5		Educ 1 = 1, if no schooling, 0 otherwise
6		Educ 2 = 1, if primary education, 0 otherwise
7		Educ 3 = 1, if secondary education, 0 otherwise
8		Educ 4 = 1, if other type of educ.; 0 otherwise
9	Type of Business	Biztype1 = 1, if Trading; 0 otherwise
10		Biztype2 = 1, if Agro-Processing; 0 otherwise
11		Biztype3 = 1, if Catering/Food Selling; 0 otherwise
12		Biztype4 = 1, if Tailoring; 0 otherwise
13		Biztype5 = 1, if Farming; 0 otherwise
14	Marital Status	Marstat1 = 1, if single; 0 otherwise
15		Marstat2 = 1, if married; 0 otherwise
16		Marstat3 = 1, if divorced/separated, 0, otherwise
17		Marstat4 = 1, if widowed; 0 otherwise
18	Amount Saved	Total sum saved per month
19	Village of residence	Village1 = 1, if Alapoti; 0, otherwise
20		Village 2 = 1, if Onibuku, 0, otherwise
21		Village 3 = 1, if Iju-ota, 0, otherwise
22		Village 4 = 1, if Atan, 0, otherwise
23		Village 5 = 1, if Alagbaa and environs, 0 otherwise
24	Native	Native_1 = 1, if native of village, 0 otherwise
25	Ln years in saving club	Natural Log of actual years of Saving participation

Source: Authors' Field Survey (2005)

In the Savings model, S , the dependent variable is the amount of Naira saved with the informal savings association per month. In this wise all informal savings type is adjusted to monthly type to ensure comparability. For instance, the daily saving type is

multiplied by 30, the weekly type is multiplied by 4 and so on. For the income model, Y is the dependent variable. Y is the gross turnover per week and it is the proxy variable used to capture the earnings per week, since most informal micro-entrepreneur do not keep adequate record that would have enabled them calculate income earned. Table 1, describes the variables used in the model.

4. RESULTS AND DISCUSSIONS

4.1 Some characteristics of the sampled population

Our respondents for this study were drawn from 3 rural towns and 2 village communities in Ado-Odo/Ota local Government Council of Ogun State Nigeria. The three rural towns sampled are Iju-Ota, Onibuku and Atan all along the Ota-Ikoro road in Ogun state. The rural towns are all along the major road linking Nigeria with Benin Republic and are popular routes of informal ('illegal') trade in imported second-hand (popularly known as 'tokunbo') vehicles from Cotonou. Each of the three rural towns has primary and secondary schools, which are the major source of wage employment in the towns. Majority of the other residence are own-account workers. None of the rural towns have any formal banking facility. The other two research locations (Alapoti and Alagbaa) are smaller village-communities with farming and rudimentary agro-processing as the main economic activities. Alapoti has a secondary school as well as one public primary school, yet, the rural nature of the village makes wage work in the schools an insignificant economic activity. In fact most of the teachers in the schools reside not in Alapoti, but commute to and from work from nearby adjoining rural towns. Alagbaa and the adjoining villages have neither secondary nor primary school and as such over 90% of all adults engage in one form of on-farm and/or off-farm activities for a living. None of the research locations has any form of formal banking services.

Our household survey of women in the 5 communities took place in the months of April and May 2005. In total, we were able to get useful responses from 275 women interviewed out of the total number of 300, yielding a 92% response rate. These 275 women were engaged in different economic activities like trading, rudimentary agro-processing (e.g. of raw cassava tubers to *fufu* and *garri*, corn-roasting and so on), Catering, Tailoring and Farming. The dominant economic activity among our respondents is petty trading in which about 50% are engaged, 24% are in Agro-processing, 12% in Catering, 5% in Tailoring/Fashion designing, 4% in Farming while the rest belong to the 'Others' category. It is not uncommon, however for women to combine several economic activities like Trading and Agro-processing. One common characteristic, however, exhibited by

majority of these women is hard work, as most of them labour from dawn to dusk on their chosen vocation that enables them earn a living for self and family members.

In terms of age, many of our respondents are in their prime. While only 7 of the respondents representing less than 3% are teenagers in the age range of 15-19; over half of them (53%) are in the 20-39 years of age bracket. Seventy of them, representing 25% are between 40 and 49 years, while 16% are over 50 years. This discovery appears surprising as it is expected that the rural areas have a more than proportionate shares of the very young and the very old. It is not unlikely that the high unemployment level in the urban areas, coupled with the booming illegal vehicle smuggling activities in our survey areas might have encouraged the young ones to continue to stay in the area.

With respect to marital status, 10% of our respondents are single, 216 of them representing two-fifths, are married while the rest are either divorced/separated (4%) or widowed (7%). In terms of educational attainment, 58, representing 21% had no formal education, 123 of them representing about 45% had primary education, 80 of them representing 29% had secondary education, while the rest are in the 'others' category. Of the business activities surveyed, Trading and Agro-processing has the bulk of those in 'No schooling' and 'Primary School' categories. Thus, about 79% of our respondents are literate and fully resident in the rural communities. This is surprising, given the high rate of rural-urban migration potentials of the young and literate members of the population in developing countries.

4.2 Evidence of Savings and Informal Savings participation rate

Rural dwellers in developing nations are disadvantaged in terms of access to formal banking facilities, which are not available in our research locations, as in many rural communities of developing countries. However researches have shown that micro-entrepreneurs as well as the rural poor desire financial vehicles for savings. For rural women, this desire stems from a variety of reasons: the need for means of coping with family financial requirements in case the husband becomes irresponsible and abandon family financial responsibilities; the need to finance emergencies like child or personal illness; the need to have means of support in case of either divorce or death of spouse; or as means of financing rural micro-enterprise, if one exists.

For the women sampled in our survey locations, saving is believed to be necessary. For instance, 271 out of the 275 respondents representing 99% agreed that saving is necessary while a mere 1% believe otherwise. When further questioned on whether they actually participate in any form of savings, as many as 82% of them participate in one

mode of savings or the other, while the remaining 18% do not save. In terms of distribution of respondents by type of savings mode used by those who save, 9% use the formal banking system, 78% use the informal savings association/club, while the rest use other means such as keeping whatever money they have with trusted friend, at home, or other unspecified means. The use of informal saving mode is popular among women of all types of educational background in our study area. For instance, among those that use the Ajo/Esusu savings mode, 24% had no formal education, 48% and 28% respectively had primary and secondary education levels respectively. This is not surprising, as even among the university lecturers, Ajo/Esusu of the rotating savings type are predominant.

It is noteworthy to discover that a substantial amount is being mobilized through the informal savings scheme among our sampled population. For instance, the mean level of monthly informal savings reported was N3, 830; giving a total of N708, 500 for the 185 respondents that reported regular savings amount. On an annual basis this amounts to over eight million Naira! A disaggregation of the mean monthly saving by type of business shows that those in Catering/Foodselling has the highest mean monthly saving of N5, 712.5, followed by rural women in Tailoring (N4,866.67). Trading, Agro-processing and the 'others' categories have about N3, 000 each. The lowest mean monthly saving is recorded by those in Farming and it is N1,433. The table showing the percentage distribution of monthly savings by type of business enterprises is shown below.

TABLE 2: PERCENTAGE DISTRIBUTION OF MONTHLY SAVINGS BY TYPE OF BUSINESS ACTIVITY

MTHLY SAVINGS	N100	N500	N1,000	N3,000	N5,000	N7,000	N10000	MEAN
	TO	TO	TO	TO	TO	TO	AND	
	N499	N999	N2,999	N4,999	N6,999	N9,999	OVER	
TRADING	7.1	14.3	36.9	20.2	8.3	6.0	7.1	3,390.50
AGRO-PROCESSING	4.8	14.3	35.7	28.6	11.9	2.4	2.4	3,330.95
CATERING & FOOD SELLING	3.1	18.8	25.0	28.1	3.1	3.1	18.8	5,712.50
TAILORING		22.2	22.2	22.2	22.2		11.1	4,866.67
FARMING		33.3	66.7					1,433.33
OTHERS		6.6	20.0	53.3	13.3	6.7		3,526.65
TOTAL	4.9	15.1	33	25.9	9.2	4.3	7.6	

Source: Authors' Field Survey, April/May, 2005

4.3 Informal Savings and Economic Welfare of Rural Women

Having established the need for and actual participation in informal saving, we now turn to the important question of saving utilization. It is our intention to find out the economic importance of such savings in relation to the welfare status of the participants. As maintained by Ogunrinola and Oladeji (1990:78), "the essence of savings and credits is to achieve social advance and economic betterment"; we intend to explore whether or not such economic betterment accrue to rural women in our survey locations.

Two basic factors were identified in our survey instrument as the possible reasons for saving: Business/Human Capital Development or entrepreneurial advancement reason which is made up of investment in business development as well as in payment of school fees of children. The second part is for the purpose of consumption (as in the use for either buying land or build houses; purchasing radio, TV set, mobile phone; for social function like burial or wedding and for any emergency purposes). The 'emergency' purpose is even more crucial for rural women, many of who are subjects of harassment from their husbands and their extended family members. In this respect, many of them anticipate abandonment of self and their children by husbands, unexpected/untimely death of spouse.

In addition to own savings with the informal collectors, there are the possibilities of obtaining loan for use. In our survey, about 50, representing 18% of our respondents claim that the informal savings organizations they save with, do give loans to members. Thus, both the pay-off from previous contributions as well as loans where obtainable can be utilized for any desired purposes.

TABLE 3: CREDIT AND SAVINGS UTILIZATION

	BUSINESS/HUMAN CAPITAL DEVT.		CONSUMPTION		TOTAL	
	Number	%	Number	%	Number	%
Last Loan	26	59.1	18	39.9	44	100
Last Pay-off	128	78	36	22	164	100
Next Pay-Off	83	59.8	56	40.2	139	100

Source: Authors' Field Survey (2005)

As shown in Table 2, only 44 respondents reported how the last loan obtained was utilized, while 164 reported the utilization of the last bulk payment received from savings. A total of 139 responded to the question regarding the proposed utilization for

the next bulk payment from savings. For those that obtained credit from their informal savings association, about 60% of them used it for business development and/or human capital development of wards, while the remaining 40% used theirs for consumption purposes. For those reporting on the previous pay-off, 78% reported business/human capital development utilization while only 22% used theirs for consumption purposes. Almost similar result was obtained from the planned utilization of next pay-off from savings as 60% and 40% of respondents expected to expend it on business/human capital development and consumption purposes respectively.

Having established that informal savings were used mostly for developmental purposes, it is important to explore how our respondents have fared since using the informal channel of resource mobilization. One method we used was through changes in average income level proxied by weekly gross turnover in their microenterprises. Table 3, gives the details of income change before and after joining the informal savings club.

TABLE 4: MEAN WEEKLY INCOME COMPARISON BEFORE AND AFTER JOINING INFORMAL SAVINGS ASSOCIATION

	Income Before	No. In Group	Income After	No. In Group	Av. Yrs in Group	Average Growth
TRADING	2,032	71	3,853	69	5.47	12.4% p.a.
AGRO-PROCESSING	2,567	42	5,184	42	5.15	14.6% p.a.
CATERING/ FOOD SELLG	1,741	27	2,875	27	5.81	9% p.a.
TAILORING	607	7	1,186	7	3.00	25% p.a.
FARMING	1,500	3	2,834	3	3.33	21%
OTHERS	5,183	13	9,333	13	2.96	22%
TOTAL	2,076	163	3,939	161	5.06	13% p.a.

Source: Authors' Field Survey, 2005.

As shown in the table above, income after joining the informal savings group grew from a cumulative average of N2,076 to N3,939 for all the business types within the time period of five years. This represents an annual compound growth rate of 13%. This growth was highest among the Tailoring entrepreneurs, while it is lowest among entrepreneurs in Catering/Food Selling. Informal saving therefore, has led to a positive change in income and hence the welfare of rural women entrepreneurs in our survey locations.

Investigating a simple bivariate econometric relationship between income and savings gives the following result:

$$\ln Y = 5.476 + 0.364 \ln S$$

(15.116) (5.994)

$$R^2 = 0.184$$

$$\text{Adj. } R^2 = 0.179$$

$$F = 35.92$$

The t-statistic of the regression estimates is shown in parenthesis below the result stated above. Both the constant term and the coefficient of $\ln S$ are significantly different from zero at 1% level. The R^2 , which is the coefficient of determination shows that 18% of the variations in income is explained by the level of savings. When adjusted for the degrees of freedom, Adj. R^2 becomes 17.9%. This result shows that a 10 percentage change in saving, is expected to lead to 3.64% change in income, giving an inelastic relationship between Savings and Income.

A self-appraisal of the impact of informal savings using several variables relating to our respondents give a result that supports our earlier findings. For instance, when asked if informal savings contributes to business progress, 146 entrepreneurs, representing 93% of 157 of them that responded to the question answered in the affirmative while only 7% said 'No'. A similar, but slightly different question asking whether informal savings improve income, gave almost similar result like the previous one: 96% answered yes, while only 4% answered No.

4.4 Informal Savings Function: Estimation result and discussion

As stated in the section describing the methodology of this study, the ordinary least squares approach was used to estimate our savings model. Two regression equations were estimated: the first, which is tagged Regression A, was the one using all the variables that were expected to be influencing the level of savings. The second, tagged Regression B, used the same set of variables but estimated in stepwise fashion. The stepwise regression technique eliminated all but the natural Log of Income and Type of Business dummies.

In regression A, only 3 variables are statistically significant, while the others are not. These variables are: Log of Income, Log of number of years spent in Ajo/Esusu Club, and Type of Business dummy (Biztype6). The level of significance of each variable is as indicated in Table 5. Because of the double-log form of the estimated numerical coefficients, the regression coefficients associated with continuous variables are to be interpreted as elasticities. However, the regression coefficients associated with dummy

variables should be interpreted as the percentage difference in savings of an individual belonging to a particular category rather than to the excluded category, all other things remaining unchanged. This is simply because the constant term of the equation was not constrained to be equal to zero.

In regression A, out of the 10 main variables, broken down into 26 variables, only three were found to be significantly different from zero. These are the natural log of income and the number of years spent in Ajo/Esusu club as well as the type of business dummy (in this case Biztype6). The regressors explained about 34% of variations in the natural log of savings as reported by the R^2 . When the R^2 was adjusted for the number of explanatory variables, the resulting Adj. R^2 is about 18%. In Regression B, which is the stepwise regression using all the variables as in A, only the 2 variables that were significant in regression A were picked, and these are: the natural log of Income and the type of business dummy. The R^2 and the Adj R^2 for regression B are about 21% and 18% respectively, while the F-statistic is 2.11%.

The results of our regression show that informal savings among rural women in our study area is inelastic with respect to income, age, and the number of years spent in the informal savings club. Specifically, a unit percentage change in income is expected to bring about 0.553 percent change in savings (Regression A) in the same direction while also similar result (i.e. 1% change in income leads to 0.558% change in amount saved) is applicable to regression B.

In Biztype variables, only Biztype6 is significantly different from zero at 10% level of significance. This shows that Biztype6 in Regression, which is the 'Others' category save 28% less (as shown by the negative sign of the coefficient) than the excluded category which is Trading.

5. SUMMARY AND RECOMMENDATION

Our study has shown that informal savings in form of Ajo/Esusu in its various forms (fixed fund and rotating fund) is popular among the rural women of Ado-Odo/Ota Local government of Ogun State. Participation rate is as high as 78% while average monthly saving mobilized is about N708,500. In addition to own savings, some of our respondents are able to source credit in form of loans from their savings club. These savings and credit are being applied in various uses. Majority of the respondents use these savings and credit for developmental purposes both in terms of addition to physical capital as well as for human capital development for their children. A relatively small

TABLE 5: REGRESSION RESULT FOR INFORMAL SAVINGS FUNCTION FOR RURAL WOMEN

DEPENDENT VARIABLE: Natural Log of Amount Saved per month (N)

VARIABLES	REGRESSION A		REGRESSION B	
	Coefficient	t-statistic	Coefficient	t-statistic
Intercept	1.513	0.602	1.893**	2.387
LN Income	0.553***	3.636	0.558***	5.041
LN Age	-0.182	-0.244	(b)	
Loan Ask Dummy	0.210	0.655	(b)	
Ln Year of formal educ	-0.00966	-0.179	(b)	
Biztype1: Trading	(a)		(a)	
Biztype2: Agro-Processing	-0.505	-1.299	(b)	
Biztype3: Catering/Food Selling	-1.166	-0.844	(b)	
Biztype4: Tailoring	0.227	0.543	(b)	
Biztype5: Farming	0.259	0.415	(b)	
Biztype6: Others	-2.821***	-2.859	-2.236**	-2.505
LN year joined Saving Club	0.36**	1.859	(b)	
Marstat1: Single	(a)		(a)	
Marstat2: Married	0.341	0.630	(b)	
Marstat3: Divorced/Separated	0.561	0.666	(b)	
Marstat4: Widowed	0.156	0.862	(b)	
Educ1: No schooling	(a)		(a)	
Educ2: Primary Education	0.207	0.680	(b)	
Educ3: Secondary Education	(b)		(b)	
Educ4: Others	-0.786	-0.943	(b)	
Nativ_1	-0.202	0.683	(b)	
Village1: Alapoti	0.506	0.815	(b)	
Village2: Oniboku	0.314	0.897	(b)	
Village3: Iju-Ota	(a)		(a)	
Village4: Atan	0.144	0.323	(b)	
Village5: Alagbaa and environs	(b)		(b)	
R ²	0.337		0.207	
Adjusted R ²	0.177		0.177	
F-Statistic	20.06		2.11	

Note (a): Variables in the excluded categories (b): Variables not tried or eliminated in the stepwise regression

*** Coefficients significant at 1% level

** Coefficients significant at 5% level

* Coefficients significant at 10% level

proportion, use theirs for consumption purposes. Such consumption uses are classified into consumer durables and non-durables, as well as a provision for fall-back position in emergency.

One important outcome of our study is the fact that the rural women feel more secure through the vehicle of informal saving as they are empowered to meet both business and personal needs through savings and/or credit from their informal savings source. Also, abandonment by, or sudden incapacitation/death of, spouse seems to have lost its bite as a result of participation in informal savings programme. In addition to this, our respondents report an improved income level resulting from access to informal finance.

The savings model estimated revealed a significant, though inelastic, relationship between savings and income. Thus, a given proportionate change in income brings about a given proportionate change in savings. Therefore, the function established a relationship between income and savings, which negates the traditional pessimistic view of absence of savings in the rural areas due to the prevailing level of poverty.

Given these findings, the thrust of government policy should focus on integrated rural development and the provision of macroeconomic environment that will motivate semi-formal, not-for-profit private sector initiatives into financial mobilization and credit dispersion in the rural areas. This, among other policy measures, is expected to serve as a means of unlocking the wealth of financial resources trapped in the vast rural sector of Nigeria. Most of the resource mobilisation efforts are currently concentrated in cities, perhaps due to low costs of operations there as compared to the rural areas. For example, to our knowledge, there are no formal or semi-formal savings organizations in any of the villages we surveyed. Thus, there is a clarion call for rural not-for-profit private semi-formal organizations that would complement the efforts of informal financial organizations. Such semi-formal organizations that are expected to be better organized and with wider capital base, should be able to provide stronger linkages with the formal financial system thereby helping to bring most of the cash outside the banking sector under the control of the Central Monetary Authorities.

It is our submission, therefore, that a type of Grameen bank of Bangladesh whose major focus is the provision of micro-finance for the rural poor, with special focus on women and their enterprises is one of the possible ways of channeling financial and technical services to women-owned micro-enterprises thereby further empowering rural women in Nigeria. Previous governmental efforts (Peoples Bank, Better Life for Rural Women, FEAP etc) were, in most cases, urban-based and corrupt-ridden and therefore made little or no positive impacts on rural women. A pragmatic approach of sensitizing micro-finance NGO's that will mobilize savings and provide credit at minimal rate of interest is expected to be a welcome development.

REFERENCES

- Abumere S.I. (1978): "Understanding Economic Development in Nigeria: The relevance and irrelevance of the dualistic theory". *Nigerian Journal of Economic and Social Studies* vol.20, pp375-406.
- (1980): "Dualistic theory and spatial development in a ex-colonial Territory" *Singapore Journal of Tropical Geography* vol. 1, pp.1-10
- Anao, J.O. (1989): "Modes of Financing Small-Scale Industries in Nigeria" in Igwe, B., Akiribimi and P.A Baruwo (eds) *Small-scale Industries and the Development of Nigeria*, NISER, Ibadan.
- Anyawu, C.M.1996): "Efficient Administration of Credit for Small-Scale Industrial Development" *CBN Bullion*, Vol. 20, No3. (July/September).
- Atoyebi, G.O (2003): "Rural Banking and Economics Development in Nigeria". *The Nigerian Banker*. Jan- March.
- Branligan D. (1991): "Regional Industrialization in Eastern Nigeria" *CBN (mimeograph)*.
- Donald, .D.T (2000): "The Heart of Economic Reform." *Astigata Publishing Company: USA*, page 8-11.
- Magbagbeola, N.O. (2003): "Determinants of Informal Financial Group participation": A *Logistic Approach*. *NDIC Quarterly*. Vol. 10
- Okurut, N (2004): *Credit Demand and Credit Rationing in the Informal Financial Sector in Uganda: Paper to the DPRU/Tips/Cornell Conference on "African Development and Poverty Reduction: The Macro-micro Linkage"*
- Oloyede, A. (1998): "The Financial System's Role In Resource Mobilization and Investment". *Paper presented at The CBN seminar on The Dynamics of Managing the Century and the Challenges for the Next Millennium. Held at the Hill Station Hotel, Jos.*
- Oladeji S.I and I. O. Ogunriola (1990): "Informal Savings/Credit and Economic Development: A Study of Savings Habit And Utilization in South-Western part of Nigeria." *SSC/FORD Research Project II*.
- Ogunriola, I.O. (1990): "Informal Savings and small business development in Nigeria: Some evidence from Badagry" *Ife Journal of Economics and Finance*. Vol 1:No.1
- Ogunriola, I.O (1992): "An Economic Analysis of Personal Earnings of the Self -Employed in the Informal Auto-repair Sector: The case of Ile-Ife". *The Nigerian Journal of Economics and Social Studies*, Vol. 32, Nos.1,2,3 (March,July, November).
- Todaro M.P (2004): *Economic Development*. **Publisher, Pearson Education (Singapore)Pte Ltd, Indian**, Eight Edition
- Ukpong (1998): *Rural Finance Policy Framework and Practice in Nigeria*, in *Bullion: Publication of the Central Bank of Nigeria*.
- Vonderlack R.M and Schrenier M. (2001): "Women, Microfinance, and Savings: Lessons and Proposals". *Mimeo, Center for Social Development*,