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Determinants of Loan Repayment under the Indigenous Financial System in Southeast, Nigeria

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Abstract: Orlu Local Government Area of Imo State was purposively for the study. Six Communities were randomly selected from the fifteen Communities in Orlu Local Government Area. From each of the 6 communities, three indigenous financial institutions were selected. Ten farmers who borrowed from the indigenous institutions were randomly selected. Primary data were collected using interview schedule, questionnaire and personal observations. The data collected were analysed with descriptive statistics and multiple regression analysis. The amount of loan received age of beneficiaries, household size, years of formal education and occupation were important determinants of loan repayment under the system. The R^2 was computed as 0.8183 implying that the independent variables contributed 82% of the variation in the outstanding loans owed to the institutions be linked up with the government poverty alleviation programmes to enhance their loanable and available funds for on-lending to the cash stripped farmers in the study area.

Key words: Determinants, loan repayment, indigenous financial system

INTRODUCTION

The farming business in Nigeria is undergoing rapid changes, doing away with primitive methods of production and archaic farm implements and picking up improved technologies. To enhance the level of adoption of technological innovations and consequently increase the level of agricultural production, there is a great need to strengthen the financial capacity of farmers (Olomola, 1988). This means that the level of private investment in agriculture has to be increased. A major determinant in this respect is the availability of credit. It is very important to make loanable funds accessible to producers in order to improve the acquisition of capital inputs at the farm level. Ijere (1978) observed that agricultural credit is necessary to enable farmers take advantage of new technologies and to pay for such items as; farm machinery, improved varieties of crops and livestock, fertilizers, labour and other running costs. It was in realization of the place of savings and credit in agriculture that the government of the Federal Republic of Nigeria set up formal financial institutions such as; Nigeria Agricultural, Co-operative and Rural Development Bank and the Community Banking System. The formal institutions have failed to meet up the credit needs of rural farmers (Ijere, 1982). As a result, many farmers have resorted to informal credit sources, as a means of improving their economic, social and cultural situation especially among farmers with limited resources who have less access to formal farm credit.

Among the indigenous financial institutions are Esusu or Isusu Clubs, money lenders, daily contributions collectors etc. The unique merit of these indigenous institutions are noted most especially in their adaptation to individual needs, well fitted into the community patterns and their aim at encouraging planned and goal oriented savings and projects. Furthermore, the indigenous financial institutions have served in raising the Marginal Propensity to Save (MPS) of the inhabitants in the areas where they operate (Nweze, 1991). Indigenous financial institutions appear to be appealing to the farmers because the institutional procedures are speedy, efficient and well understood by all socio-economic groups. They do not entail elaborate paper signing and do not involve complex organization. This is because their success relies on mutually accepted standard of honesty, trust and understanding and the participants belong to the same class, province, community or village (Nweze, 1991). This has some promise for production expansion among the rural farmers who patronize them.

Rural farm Production involves great risk and uncertainties. There is risk of crop failure through outbreak of diseases, flooding, insects, pests and

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diseases. These risks inherent in farm production hinder the prospects of farmers loan repayment. Low repayment of loans in turn affects the amount of credit given to rural farmers. This study therefore focused on the determinants of loan repayment under the indigenous financial system in southeast Nigeria. It also identifies factors amenable to increased saving and capital accumulation among rural indigenous agricultural financing institutions. The broad objective of the study is to examine the determinants of loan repayment under the indigenous financial system in southeast Nigeria. The specific objectives of the study are to describe the socioeconomic characteristics of the respondents and to determine the factors that influence loan repayment under the indigenous financial system.

MATERIALS AND METHODS

Orlu Area of Imo State was purposively chosen for this study because of the existence of many indigenous financial institutions in the area and a good representation of the southeast of Nigeria. The Area is made up of fifteen communities namely; Amaifeke, Ihitte-Owerri, Owerri-Ebiri, Obibi, Amike, Orlu-town, Umudioka, Ezeachi, Umuzike, Umutanze, Okporo, Umuowa, Umuna, Ogberuru and Ihioma. Ninety percent of the population are involved in agricultural production and their major crops are; cassava, yam, cocoyam, vegetables and plantains while livestock reared are goat, sheep, pig, poultry and turkey (Imo State Agricultural Development Project, 1996).

Six communities were randomly selected from they fifteen communities in the area. These were, Umutanze, Umuowa, Owerri-Ebiri, Umudioka, Okporo and Ihioma. From each of the communities, three indigenous financial institutions namely, Isusu Clubs, Money lenders and Daily contribution collectors were purposively selected since they were the dominant indigenous financial institutions in the area. Ten farmers who borrowed from each of these indigenous institutions were then randomly selected from each of the communities. This was done from a list of the indigenous financial institution members as was obtained from the leadership of the institutions. This gave a total sample size of 180 respondents used for the study. However, 120 respondents returned properly completed and valid questionnaire which was used for the analysis. The field data were collected using both interview schedule, questionnaire and personal observation. This data collection lasted for six months from February 2005 to July 2005. The data collected were analysed using descriptive statistics and multiple Regression Analysis. The Ordinary Least Squares (OLS) method of regression was used in estimating the relationship between loan repayment default and a number of variables which influence loan repayment. Four functional forms were tried, they are linear, double log, semi log and the exponential forms. The lead equation was chosen on the basis of a priori expectation, F-ratio, R^2 and the number of variables that were significant. The parameter estimates were tested for significance at 5% level of significance.

In their general forms, these functional forms are specified as follows;

- The linear form
  $Y = bo + b_1 X_1 + b_2 X_2 + b_3 X_3 + b_4 X_4 + b_5 X_5 + b_6 X_6 + b_7 X_7 + b_8 X_8 + e$
- The double log form
  $\text{Log } y = bo + b_1 \log X_1 + b_2 \log X_2 + b_3 \log X_3 + b_4 \log X_4 + b_5 \log X_5 + b_6 \log X_6 + b_7 \log X_7 + b_8 \log X_8 + e$
- The semi log form
  $Y = bo + b_1 \log X_1 + b_2 \log X_2 + b_3 \log X_3 + b_4 \log X_4 + b_5 \log X_5 + b_6 \log X_6 + b_7 \log X_7 + b_8 \log X_8 + e$
- The exponential form:
  $\text{Log } y = bo + b_1 \log X_1 + b_2 \log X_2 + b_3 \log X_3 + b_4 \log X_4 + b_5 \log X_5 + b_6 \log X_6 + b_7 \log X_7 + b_8 \log X_8 + e$

Where

Y	=	Amount of outstanding loan (N)
X_1	=	Amount of loan borrowed (N)
X_2	=	Interest paid on loan (N)
X_3	=	Age of beneficiary (years)
X_4	=	Household Size (number)
X_5	=	Years of formal Education
X_6	=	Occupation (1 for farm, 0 otherwise)
X_7	=	Years of farming experience
X_8	=	Loan duration (years)
e	=	Error term
bo, $b_1 \ldots b_8$	=	Regression coefficient.

The amount of outstanding loan is used in place of amount of loan repaid as the dependent variable because outstanding loan is easier to measure with accuracy than a variable and the outstanding loan is then interpreted as the inverse of the relationship with amount repaid (Njoku and Odii, 1990; Njoku and Obasi, 1991).

RESULTS AND DISCUSSION

Socio-economic characteristics of rural loan beneficiaries: The regression analysis models explain the technical aspects of loan repayments. However, such variables do not often provide full explanation of the observed variations in farmers behaviour. A full explanation may be obtained through the combination of

socio-demographic and economic variables. Such factors as household size, age structure, farming experience and educational attainment of farmers can influence loan repayment to a consideration extent. These variables could be used as proxies in measuring the management ability of farmers. Thus an attempt was made to describe a number of socio-economic factors in this article in recognition of their role in enhancing the interpret ability of the loan repayment analysis.

Table 1 shows that the mean age of the respondents was 45 years, where majority of the beneficiaries are between 40-49 years of age. The age factor in traditional agriculture is significant in at least two important respects. The first is increased productivity while the second is rate of adoption of innovations. These two aspects have implications for loan repayment among traditional farmers in the study area.

Table 2 shows that the mean household size was 10 persons but majority of the beneficiaries had 11-12 persons in their households. These include the man, his wife, children servants and relations who feed from the same pot. Given the scarcity of off-farm employment opportunities in the rural areas, the level of participation of family members in farm work devices basically from the size of the household (Olomola, 1988). The size of household depends on the marital status of the respondents and in particular on the number of wives of the head of the household.

Table 3 shows that the major occupation of most respondents (80%) was farming. The remaining 8, 7 and 5% were teachers, traders and civil servants, respectively. This shows that majority of the respondents were farmers.

Table 4 shows that the majority of the respondents had secondary education. About 29% had primary education, while 13% had higher education from either a university or a polytechnic. Only 17% had no formal education. Thus, the literacy level was high. The relevance of the literacy level of farmers to farm productivity has been documented by many authors (Olomola, 1988; Eze, 1991). The educational attainment of a farmer does not only raise his productivity but also increases his ability to understand and evaluate the information on new techniques and processes being disseminated. This has implication for increased income and loan repayment ability of the farmers.

Table 5 shows that majority of the respondents (50%) had between 1-10 years of experience in farming, while 38% of the farmers had between 11 and 20 years farming experience. The number of years a farmer has spent in the farming business could give an indication of the practical knowledge which has been acquired. Although experience may not count in terms of risk taking, it is apt

Table 1: Percentage distribution of respondents by age

Age range (yrs)	Frequency	(%)
20-29	10	8
30-39	30	25
40-49	40	33
50-59	25	21
60-69	15	13
Total	120	100

Source: Field data, 2005

Table 2: Distribution of respondents by household size

Household size range	No. of respondents	% respondents
1-5	20	17
6-10	40	33
11-15	60	50
Total	120	100

Source: Field data: 2005

Table 3: Percentage distribution of respondents by occupation

Occupation	No. of respondents	% respondents
Farming	96	80
Teaching	10	8
Trading	8	7
Civil service	6	5
Total	120	100

Source: Field data; 2005

Table 4: Percentage distribution of respondents by level of education

Level of education	No. of respondents	% respondents
No. formal education	20	17
Primary education	35	29
Secondary education	50	47
Higher education	15	13
Total	120	100

Source: Field data; 2005

Table 5: Distribution of respondent by years of farming experience

Years of farming	No. of respondents	% respondents
1-10	60	50
11-20	45	38
21-30	15	12
Total	120	100

Source: Field data, 2005

to have considerable influence on production efficiency and improved farm income which in turn affects loan repayment ability of farmers. It is therefore ascertained that age of farmer, educational attainment, household size, occupation and years of farming experience are factors that are amenable to improved loan repayment and capital accumulation under the traditional financial setting.

Socio-economic factors of loan beneficiaries often govern their loan repayment performance. Consequently the socio-economic characteristics of loan beneficiaries in the study area were subjected to regression analysis using the Ordinary Least Square (OLS) method of regression. Four functional forms were tried. Double log was chosen as the lead equation on the basis of R^2, F-ratio, number of significant variables and a *priori* expectations. This helped to identify the determinants of loan repayment under the indigenous financial system. The result of the double log regression analysis is presented in Table 6.

Table 6: Regression estimate of double function

Variable	Co-efficient	Std. Error	T-value
Amount of outstanding loan(y) constant	-1.952	1.376	-1.42
Amount of loan borrowed (X_1)	0.587	0.080	7.36*
Interest paid on loan (X_2)	-0.431	0.534	-0.81
Age of beneficiary (X_3)	1.761	0.551	3.20*
Household Size (X4)	-0.5079	0.270	-1.88
Years of formal education (X_5)	-0.630	0.115	-5.48*
Occupation (X_6)	0.221	0.110	2.01*
Years of farming experience (X_7)	0.0194	0.212	0.09
Loan duration (X_8)	1.241	0.486	2.55*

Source: Field data; 2005, R^2 = 0.8183, R-^{2}= 0.8096, F_{cal} = 72.05, $T_{0.05}$ = 1.64, * = Significant at 5%

The independent variables together contributed about 82% of the variations in the outstanding loan. The amount of loan borrowed (X_1) was positively correlated to the amount unpaid and statistically significant at 5% level of significance. It is possible that if loans are increased for a farmer, there is the tendency that the excess loan may be diverted to other unproductive, non agricultural uses such as, children's school fees, etc. The variable interest paid (X_2) was found to be negatively correlated to the unpaid or outstanding loan and also not significant at 5% level of significance. This is contrary to a priori expectation. This could be due to generally low interest rates which are more or less uniform among the indigenous financial institutions studied. The Co-efficient age (X_3) was found be positively correlated to the outstanding loan and statistically significant at 5% level of significance. This could be due to the fact that younger people work hard to repay their outstanding loans but older people have decreasing productivity. This may be related to life cycle hypothesis of savings. This means that the age factor should however be interpreted with caution. The co-efficient household size (X_4) is negatively correlated with amount of outstanding loan but statistically significant at five % level of significance. This is contrary to a-priori expectations, since largeness of households could lead to loan diversion to feeding and maintenance of large households. However large household size could be of advantage in terms of family labour and increased productivity which in turn could positively affect loan repayment. The co-efficient education (X_5) was negatively correlated and statistically significant at 5% level of significance. The negative relationship between education and outstanding loan is contrary to the findings of Njoku and Obasi (1991). The implication of a negative relationship between education and outstanding loan may be that the higher the educational level of the borrowers the more their ability to repay the loans. Occupation (X_6) showed a positive correlation and statistically significant at 5%. The implication is that loan beneficiaries who are deeply involved in farm business are unwilling to repay their loan. This may be due to the fact that they preferred a continuous use of the loan for higher output. The co-efficient farming experience (X_7) was not statistically significant but positively correlated at 5%. This implies that the more years the farmers are in the business of farming the more they lack the ability to repay their loans. It may also imply that, it is the profitability of an enterprise that is a function of the risks and costs associated with it that is more important in determining loan repayment and not the farming experience of the farmers. The loan duration (X_8) was positively and significantly related to outstanding loan; the amount borrowed and the timeliness in disbursing the loan. The loan duration was positively and significant to the beneficiaries may be other relevant important factors determining loan repayment in the study area.

CONCLUSION

This study shows that indigenous financial institutions play important financial function in funding and providing scarce capital to small holder farmers who have no other direct source of credit. Agricultural credit is one of the most valuable instruments for agricultural transformation and farmers should be assisted to help them transform agriculture and provide food and industrial raw materials for the nation. These indigenous financial institutions provides the forum for rural credit savings and capital accumulation and therefore an indispensable organ through which a break through in agricultural development could be achieved in Nigeria. It is therefore recommended that indigenous financial institutions be encouraged financially through the government poverty alleviation programmes to enhance their loanable and available funds which will be at the disposal of these institutions for on-lending to the capital striped farmers in the study area.

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