

DETERMINANTS OF NACRDB CREDIT ACQUISITION, UTILIZATION AND REPAYMENT AMONG FARMERS IN OGUN STATE, NIGERIA

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Abstract

This study examined the determinants of NACRDB loan acquisition, utilization, and repayment by farmers in Yewa division of Ogun state. Primary data collected through scheduled interview with the help of a structured questionnaire as well as secondary data were used for this purpose. Descriptive analytical tools, linear discriminant function, and multiple regression analysis were used to analyze the data collected. Results show that majority of the respondents attributed reasons for zero or partial repayment of loan to production failure due to weather, pests and diseases and poor storage (72.5%). Furthermore, the results show that the largest proportion of the loan defaulters (52.5%) use their last credit obtained for the stated reason (farming). Discriminant analysis conducted shows that the total annual income of the household head, other occupation of the respondents and membership of cooperative society are the most significant variables that discriminate between rural bank users and non-users. The regression analysis shows that the most important variable is farm size (hectares) accounting for 32% of the variations in repayment level of the credit user, while the next to it was farm income. It was suggested that NACRDB loans should be disbursed through farmers cooperative society, with adequate monitoring and supervision.

Introduction

Lack of financial capital is one of the major constraints of agricultural development in Nigeria. In the early 70s, just before the establishment of rural banking scheme, Nigeria Agricultural and Cooperative Bank, and Community Bank, majority of the commercial banking activities were largely performed in the urban areas where it is targeted on the rich. During that period, studies show that the larger portion of the population lived in the rural area and in abject poverty (Adekanye 1983, Akinbode 1995 and Fabunmi 1987). Most of the rural savings were kept with the registered thrift and credit cooperative societies, which in turn made deposit with the commercial bank in towns and cities (Ogunfowora, 1972).

The process of operating account with the banks located in urban areas was a tedious process for both the cooperative society and the individual members of the rural communities. The problems of bank users from rural areas as indicated by previous studies include: distance covered, difficulty of securing transportation and the fear of losing money to thieves and armed robbers while going to or coming from the banks located in urban areas (Fabunmi 1987, Anyanwu 1995 and Williams 1998).

As a result of the low patronage of farmers to commercial bank, and inability of commercial bank to concentrate their efforts in the rural sector, the Federal Government Established Nigeria Agricultural and Cooperative Bank (NACB) in November 24, 1973, but now known as Nigeria Agricultural Cooperative and Rural Development Bank (NACRDB).

The Nigeria Agricultural Cooperative and Rural Development Bank (NACRDB) is an apex rural development financial institution set up to extend credit to agriculture and agro-allied sectors of the Nigerian economy. This is carried out through, the provision of loans to farmers and cooperative societies. In addition, the bank provides financing by direct investment in equity capital of major

agricultural and agro-allied industries ventures. The sole activities of the bank are directed at assisting rural development and mobilizing rural savings behaviour, thus, improving the income and general welfare of farmers.

In Nigeria, one of the barriers to the development of agriculture is the poor funding of farmers. The government has provided credit at little or no interest to farmers through NACRDB, but the problems that led to this credit policy and the establishment of NACRDB still persists. The majority of Nigerian farmers continue in their traditional way of farming due to their inability to afford modern technology. Consequently, they still produce at low level of output. It is therefore, pertinent to verify the

functionality of the rural credit institutions, NACRDB and the involvement of farmers in banking activities. The question that keep roaming one's mind, therefore, are:

Does the credit actually reach the farmers?

Is the credit available to individual farmer adequate in size of the required purpose?

Is the credit properly monitored to ensure that when taken it is used for the intended purpose?

Why is it that some farmers do not make use of the credit facilities provided by NACRDB?

What is responsible for farmers' perpetual low productivity in spite of the credit facilities and incentives?

If NACRDB is to achieve its set objectives, answer to these questions must be provided.

Purpose of the Study

The purpose of this study is to determine the extent to which the socio-economic factors affect rural bank credit acquisition, utilization and repayment of such credit among farmers.

The specific objectives of the study includes to:

- i. identify reasons for non-use of rural bank credit facilities;
- ii. examine the use to which farmers put their credit and its effect and repayment of such credit;
- iii. examine the socio-economic characteristics of farmers that influence their participation in rural banking; and
- iv. examine the relationship between the socio-economic characteristics of the farmers and credit repayment level.

Methodology

The data were collected from a survey of farmers in Yewa Division of Ogun State which is made up of five Local Government Areas, (LGA) namely: Yewa North, Yewa South, Ipokia, Ado-Ola and Imeko-Afon LGA using simple random sampling.

Samples of five villages were randomly taken from each of the five Local Government Area in the study area. In each village a random sample of 5 respondents were interviewed. A total of 125, users and non users of credit facilities, farmers were sampled.

Only 75 out of 125 respondents sampled were rural bank users while the remaining 50 are non-bank user in all. Information was collected, using structured questionnaire, on their socio-economic profile, sources of credit, demand for credit, and their repayment of credit. Secondary data from NACRDB was also used.

Data collected were analyzed using both descriptive statistics and quantitative analysis. Descriptive statistics was used to describe reasons for non-use of rural bank credit facilities and the use to which farmers put their credit and its effect on repayment of such credit.

To distinguish between the bank users and non-users, nine variables were chosen, and used to measure the respondents' socio-economic and cultural characteristics. The variables were: (X_1) years of formal education; (X_2) gender; (X_3) awareness of the existence of the rural bank; (X_4) total annual income of household head; (X_5) age in years; (X_6) occupation of respondent; (X_7) household size; (X_8) membership of a cooperative society; and (X_9) distance of residence from the rural bank in kilometers.

The binary grouping variable was the use of rural bank (NAGRDB) facilities. Thus, a linear discriminant function was estimated, following Okorie, 1992.

$$D = b_1 Z_1 + b_2 Z_2 + \dots + b_q Z_q$$

Where D is a discriminant score; b's are weighting coefficients; and z's are standardized forms of the discriminant variable, x's.

The multiple regression analysis was employed to examine the relationship between the socio-economic characteristics of the farmers and credit repayment level. The model is specified, as:

$$Y = f(x_1, x_2, x_3, \dots, x_n, U)$$

Where (Y) amount repaid in naira; (x_1) Borrower's age in years (x_2) Size of credit in naira; (x_3) Credit beneficiaries educational level in number of years spent at school; (x_{4a}) Farm size in hectares; (x_{4b}) Farm size in number of livestock; (x_5) Household size in number of persons (x_6) Cost of obtaining credit measured in terms of amount spent on transportation, social gratification and interest charged by NACRDB (x_7) Annual net farm income in naira and (U) Error term.

Results and Discussion

Reasons for Non-Acquisition of Rural Bank Credit

Farmers' attitudes to use of rural bank credit differ. Some farmers do not use credits either because they are unavailable or because of credit acquisition constraints, while others have no need for credits. Table 1, presents the major reasons given by the farmers for non-acquisition of agricultural credit.

Table 1: Reason for Non-acquisition of Rural Bank Credit

| S/No | Reason | No of Non-beneficiaries | Percentage of Respondents |
|-------|--------------------------------------------------------|-------------------------|---------------------------|
| 1 | Hon- availability of credit Facilities / Agencies | 0 | 0 |
| 2 | Difficulties and protocols Involved in obtaining loans | 31 | 62 |
| 3 | High interest rate charged By lender | 12 | 24 |
| 4 | Lenders harsh measures of recovering loans | 5 | 10 |
| 5 | Have no need for loan | 2 | 4 |
| Total | | 50 | 100.0 |

Result analysis in Table 1 shows that majority (62%) of the non-credit beneficiaries could not use loan because of the difficulties and protocols involved in loan acquisition, while 24% were discouraged by high interest rate charged by rural banks. Only 4% of the sampled farmers have no need of loan while none of the farmers claimed non-availability of credit facilities. For the non-credit users, it is not surprising that difficulties and protocols involved in getting loans ranked first because intending borrowers are meant to pass through unnecessary bureaucratic process such as provision of guarantors, passports and completion of complex forms. An illiterate farmer may not want to expose his or her identity as a debtor by looking for a guarantor or somebody to complete the complex forms. Also, the harsh measures taken by lenders to recover loans from defaulters can be frightening. A recent study has shown that rural bank set up arbitration panel/task force to recover loans from defaulters (Okorie and Iheanacho, 1992). These measures appear very humiliating and terrifying to intending borrowers.

Credit Utilization by Beneficiaries and its Effect on Repayment

People borrow money for different purposes and reasons. Some borrow to meet economic and socio obligations while others borrow for the speculative function of money. The purpose and reasons for which a loan is obtained, however affect its utilization and, consequently repayment. The response of 40 loan defaulters and 35 non-defaulters of the NACRDB as to how they utilized their last loan obtained are shown in Table 2.

Table 2: Credit Utilization by Beneficiaries

| S/No | Use of loan obtain | Loan Defaulters | Non-Defaulters | % | |
|-------|----------------------------------|-----------------|----------------|----|-----|
| 1 | Farming only | 21 | 52.5 | 35 | 100 |
| 2 | Solve family problem And farming | 14 | 35 | 0 | 0 |
| 3 | Doing other business and farming | 5 | 12.5 | 0 | 0 |
| 4 | Doing other business and farming | 0 | 0 | 0 | 0 |
| Total | | 40 | 100 | 35 | 100 |

A large proportion of the loan defaulter (52.5%) used their last credit obtained for their stated purpose (farming); their inability to pay was an evidence of mismanagement of the loan and excessive

spending on their farm. All non defaulters (100%) used their loan for farming. The result portrays the two most characteristics of small-holder farmers in loan utilization in Nigeria, namely diversion and diversification. Diversion of loans stems mostly from the time lag in agricultural returns, the myriad of socio-economic problems requiring immediate solutions which the farmers are saddled with, and the untimely disbursement of loans to farmers. It is, therefore, common for farmers to divert agricultural loans to solving family problems. On the other hand, diversification of loans by farmers is caused by the need to have regular sources of income to meet urgent socio-economic need, thereby, farmers spend loan on other businesses as well as farming.

Reasons for Loan Default

A number of reasons have been identified for farmers' inability to repay loans. These include unsuitable technology; lack of adequate market outlets; unsuitable and inflexible repayment arrangements; lack of supervision; natural disasters and regarding of loans as one's share of the 'national cake' (FAO, 1973); the reasons given by 40 loan defaulters-of the NACRDB for zero or partial repayment are shown in Table 3.

Table 3: Reason for Zero / Partial Repayment of Loan

| S/No | Reason | Frequency | Percentage of Respondents |
|-------|------------------------------------------------------------------------|-----------|---------------------------|
| 1 | Production failure due to weather, pest, disease and poor storage. | 29 | 72.5 |
| 2 | Financial problem in the family | 9 | 22.5 |
| 3 | Poor marketing resulting from low price. | 2 | 5 |
| 4 | No reason(s) but regard loan as my share of government / Agency Money. | 0 | 0 |
| 5 | Loan was used for social activities | 0 | 0 |
| 6 | Excessive spending on the farm | 0 | 0 |
| Total | | 40 | 100 |

This study reveals that 40 out of 75 rural loan beneficiaries sampled defaulted or partially repaid the loan. Majority of the loan defaulters (72.5%) blame their default on production failure while about 23% blame their default on financial problems in the family and only 5% attributed it to poor marketing resulting from low price.

Effect of Socio — Economic Characteristics of Farmers on their Participation in Rural Banking

Discrimination analysis was performed on the data collected from the sample rural residents. The step-wise procedure was used to select the best discriminating variable (Table 4).

Table 4: Estimated Canonical and Correlation Coefficient Gap

| Variable | Canonical Coefficient | Correlation Coefficient |
|-----------------------------------------------|-----------------------|-------------------------|
| | 0.754 | 0.466 |
| Z ₁ | 0.849 | 0.159 |
| Z ₂ Z ₃ | -0.815 | -0.425 |
| Z ₄ | -0.696 | -0.240 |
| Non User - user of rural banks of rural banks | -0.745 | 0.50815 |

The four variables namely, existence of the rural bank, total annual mean of household head, other occupation of the respondent and member of cooperative society were significant at the five percent level. Three variables - education level in years, membership of social club and household size were not eliminated by the step-wise procedure but they did not contribute significantly as discriminating variables. The final three variables - sex, age and position held in the community

-were dropped during the step-wise procedure because their values were too low.

Thus, the canonical discriminant function obtained

$$D = 0.754Z_1 + 0.849Z_2 - 0.815Z_3 - 0.696Z_4$$

Where Z_1 the standardize value existence of rural bank Z_2 the standardize value of total annual incomes of household head; Z_3 the standardize value of other occupation of the respondent and Z_4 the standardize value of member of cooperative society.

Both the canonical correlation associated with the discriminant functions and the Wilk's Lambda criterion confirmed that the variables identified by the step-wise procedure were significant discriminating variables as shown in Table 5.

Table 5: Wilk's Lambda Statistics and Levels of Significance

| Variable name | Wilk's Lambda | Significance |
|----------------------------------------------|---------------|--------------|
| Education level in years | 0.831 | 0.5076 |
| Gender (Sex) | 0.848 | 0.7648 |
| Awareness of the existence of the rural bank | 0.979 | 0.002* |
| Total annual income of household head | 0.819 | 0.000* |
| Age in Years | 0.854 | 0.7769 |
| Other occupation | 0.856 | 0.000* |
| Household size | 0.836 | 0.5773 |
| Membership of Cooperative Society | 0.856 | 0.000* |
| Position held in the community | 0.852 | 0.7691 |
| Membership of social club | 0.854 | 0.3147 |

* $P < 0.05$

From this study, the critical policy variable in the design of a rural bank policy could be regarded, as those variables, which distinguish rural bank users from non-user. Discriminant analysis showed total annual income of household head, other occupation of respondent and membership of cooperative society as the most important separating rural bank users and non-users.

It is significant to note that the role of income and awareness of rural bank, in determining saving behaviours of the rural person are complimentary. To a large extent, income determines how much is to be saved while rural bank awareness influences where the money is to be saved. Evidence from this study showed that a rural person fully informed of rural banking would prefer to save with a-bank. The variable that could not contribute significantly to discriminating between rural bank users and non-user would be regarded as irrelevant to effective rural bank policy design.

Effect of Socio-Economic Characteristic of the Farmers on their Credit Repayment Level

Empirical evidence was obtained by means of multiple regression analysis to determine the factors that affect the repayment level of credit beneficiaries in the study area. Seventy-five credit beneficiaries were identified as basis for the multiple regression analysis. The functional form could not be determined a priori, consequently, different functional forms -----linear, semi-log and double-log functions were tested. The linear function was chosen as the lead equation, as it had the highest R and gave reasonable fit. About 63% of the variability in credit repayment was explained by the explanatory variables. The F-value of all the equations was found to be statistically significant at 1% level. The farm size in hectares (X_1) and coefficient of annual net farm income (X_7) were also significant at 5% level.

Table 6: Estimated Regression Coefficient and T- value

| Variable code | Variable name | Regression Coefficient | T-Value |
|---------------|---------------------------|------------------------|---------|
| X_1 | Size of credit in Naira | 2.3050 | -1.174 |
| X_2 | Borrower's age in years | 4.8949 | 0.94 |
| X_3 | Educational level | 11.1882 | 1.000 |
| X_4 | Farm size in hectares | 32.1067 | 2.064* |
| X_4 | Farm size in no livestock | 7.450 | 1.212 |
| X_5 | House hold size | 18.8478 | 1.636 |

| | | | |
|----------------|------------------------|------|--------|
| X ₆ | Cost of obtaining loan | .196 | .159 |
| X ₇ | Annual net farm income | .296 | 2.970* |

*P<0.05, R²=0.63

Farm size in hectares was the most important variable accounting for about 32% of the variation in repayment level of credit beneficiaries., next to it is the farm income. The positive and significant regression coefficient indicates that the level of farm income and the farm size of the beneficiaries were directly related to their repayment level. Thus, the higher the income received by the beneficiaries from the farm or the larger the farm size cultivated, the greater the willingness to repay credit. A larger amount of income, ceteris paribus, increases their ability to save and their purchasing power of production resources, leading to increase in production and further income and thus increasing chance of credit repayment.

Recommendations

- The following recommendations were made based on the findings in the study,
- i. Adequate loans should be promptly approved for viable agricultural project, this will enable farmers expand the farm size, generate substantial income and improve their saving ability.
 - ii. Formation of groups and cooperative societies should be encouraged. This has been noticed in the findings of the study to be a good catalyst for loan repayment,
 - iii. Proper monitoring, supervision of loans granted to beneficiaries and supportive advises should be ensured in order to prevent mismanagement of such loan and loan diversion.
 - iv. The bank should give training to beneficiaries and also ensure that the farmers are educated on incentives given such as insurance on loans, interest charged etc.; and the advantage of prompt repayment of loan given,
 - v. The banks should ensure that insurance are provided on every loan given to guide against risk and uncertainties.

Conclusion

Adequate financing has great potentials of improving agricultural production in Nigeria but the high risk and uncertainties involved coupled with a lot of non-repayment of loans by beneficiaries; insufficient loanable funds, problems faced in acquisition of loan and lack of adequate supervision by the NACRDB officials have limited the level of participation in rural banking activities and hence affected the loan disbursement by the NACRDB.

Furthermore, from this study it could be concluded that income generation by the farmers was very paramount; and most of the farmers would want to combine other occupation with farming and even join cooperative societies to acquire more credit for the fanning activities. Then, from the study, it could be concluded that as the farm size increases the income generated increases and their willingness to participate in rural banking increases. Rural banking participation by fanners could be improved if adequate incentive such as credit could be provided and adequate supervision is made, NACRDB would achieve its objectives if credit facilities are promptly released.

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