

Full Length Research Paper

Bridging the Funding Gap: An Analysis of Credit Dynamics for Forest Entrepreneurs in South West Nigeria

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This study was carried out to assess the credit characteristics of forest based entrepreneurs in South West Nigeria. Structured questionnaire were employed in obtaining primary data for this study. Average interest charges were 11% which exceeded the single digit interest rate recorded. The collateral and non-collateral credit sources were almost equal, 51 and 49% respectively. Descriptive statistics and Logit model were used. Iseyin L.G.A in Oyo state was purposively chosen due to its closeness to Old Oyo National Park which is one of the prominent national forests in Nigeria. Seventy-one percent(71%) of the respondents were in their working age with average age of 45.5 years; forest enterprises were male dominated, of which 80% of them were married and 71% were educated putting them in good stead for forestry extension and innovation and the average income was ₦10, 000 which is low compared with the household size. It was recommended that to influence their demand for credit positively, the collateral issue on credit, needs to be more entrepreneur friendly. As such government should as a matter of policy interventions provide necessary incentives that will promote forest based enterprises in order to increase the entrepreneurs' income.

Key words: Forest enterprises, credit facilities, financial institution, rural households.

INTRODUCTION

The provision of credit has increasingly been regarded as an important tool for raising the incomes of rural populations, mainly by mobilizing resources to more productive uses. As development takes place, one question that arises is the extent to which credit can be offered to the rural poor to facilitate their taking advantage of the developing entrepreneurial activities. The generation of self employment in both farm and non- farm activities require investment in working capital. However, at low levels of income, the accumulation of such capital may be difficult under such circumstances, loans by increasing family income, can help the poor to accumulate their own capital and invest in employment – generating activities (Hossain, 1988).

Credit markets are characterized by information

asymmetry, agency problems and poor contract enforcement mechanisms (Nissanke and Aryeetey, 1995). They are mainly fragmented because different segments serve clients with distinct characteristics. Because of this, lending units are unable to meet the needs of borrowers interested in certain types of credit, especially those that engage in forest based enterprises. The result is a credit gap that captures those borrowers who cannot get what they want from the informal market, yet they cannot gain access to the formal sources.

Financial markets in African countries are characterized by imperfect and costly information, risks, and market segmentation, resulting in credit rating (Aryeetey and Udry, 1997; Aryeetey and Gockel, 1991). This is one of the underlying factors in the co-existence of both formal and informal credit markets serving the needs of different segments of the market. Access to financial services by small holders is normally seen as one of the constraints limiting their benefits from credit facilities. However, in

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most cases the access problem, especially among formal institutions, is one created by the institutions, mainly through their lending policies. This is displayed in the form of prescribed minimum loan amounts, complicated application procedures and restriction as credit for specific purposes (Schmidt and Kroop, 1987). It was further argued that the type of financial institution and its policy will often determine the access problem. Where credit duration, terms of payment, required security and the provision of supplementary services do not fit the needs of the target group, potential borrowers will not apply for credit even where it exists and when they do, they will be denied access, particularly agricultural and forest based enterprises whose resources are nature-based.

Forests have been the major source of livelihood for most Nigerians. The forestry sector is one of the main pivots on which the nation's welfare was built. The forest is not only important for material goods but also as a valuable ecological and cultural resource. The forestry subsector has over the years contributed immensely to the socio-economic development in the country. It ranks among one of the highest revenue and employment generating sectors. It also serves as resource base for many forest industries. The raw materials for the production of timber, pulp and paper are derived from the forest.

The demand for wood raw material by these industries in recent times has outstripped the production capacity of the forest. Thus, exploitation of forest resources for industrial purposes if not well planned may be deleterious to the environment. It is, therefore, necessary to examine the impact of the activities of forest industries on the environment in order not to jeopardize the other goods, services and benefits of the forests. These benefits include: amelioration of weather pattern, provision of clean air, protection of biological diversity, protection of watershed, soil and food crops and provision of recreational facilities.

The forest enterprises in Nigeria can be classified into either formal or informal sector enterprises (GWVC, 1994). The formal sector enterprises include the organized wood based industries such as saw mills, plywood mills, particleboard mills and furniture factories. The informal enterprises are small forest based enterprises operating without formal corporate entity, this include enterprises that engage in the production of firewood, charcoal, chewing stick and sculptured wood items. The formal enterprises constitute the forest industries in the country.

There have been some changes in wood based industries in Nigeria between 1974 and 1997. The total number of wood based industries increased from 358 in 1974 to 1483 in 1990 but decreased to 1373 in 1997. The

reduction in the number of wood mills between 1990 and 1997 was attributed to deficit in supply of required wood raw material due to over exploitation of the forest for

export market. Although the highest quantity of wood is expected to be consumed as firewood in 2010, the highest volume of industrial wood raw material would be required for production of sawn wood.

In view of the above facts, this study examines the credit characteristics of forest based entrepreneurs in Nigeria with a view to serving as template to inform the welfare, productivity, which will directly or indirectly promote the export value of forestry in Nigeria.

This study is justified, as several studies in the past were either restricted to borrowing behaviour of forest entrepreneurs which basically touches formal and informal sectors (Aryeteey, 1996; Daniels et al., 1995; Adams, 1992) or entirely about the propagation and economic importance of forestry (Philomena, 2001; Okoruwa et al., 2003; Owonibi, 2001). Thus there is a missing link in the assessment of the credit worthiness or characteristic of forest entrepreneurs. This calls for input need to increase timber and non timber output in order to meet the local demand, and most especially exportable products as prerequisite to expanding Nigeria's participation in international trade and enhancing the country export trade diversification. In view of this, the study is aimed at identifying and describing the main characteristics of credit contracts and uses, as well as the borrowing behaviour of forest based entrepreneurs in Nigeria.

METHODOLOGY

Study area

Iseyin L.G.A in Oyo state was purposively chosen due to its closeness to Old Oyo National Park that represents national forest that is predominant in Nigeria. It is located in the interior of south-west Nigeria, with cultural values and beliefs that also support the protection and management of forest, for its desired product and usefulness.

Data collection

Multi-stage random sampling and purposive sampling was employed in choosing the study area and forest entrepreneurs that were interviewed as respondents. One hundred (100) copies of structured questionnaire were administered and retrieved in obtaining primary data which were used for this study.

Data analysis

Descriptive statistics and Logit model were used in this study. Logit model is estimated in the form:

$$L_i = \ln \left[\frac{pi}{1 - pi} \right] = B_1 + B_2 X_i \quad \text{Cramer (2003)}$$

Where L_i = log of odds ratio (logit);
 P_1 = Probability of demanding for credit;

Table 1. Socio – economic characteristics of the forest- based entrepreneurs.

Variable	Frequency	Percentage
Age (years)		
<30	11	11
30 to 60	71	71
>60	18	18
Gender		
Male	78	78
Female	22	22
Marital status		
Single	9	9
Married	79	79
Widow	6	6
Divorce	6	6
Educational status		
No education	29	29
Primary	26	26
Secondary	34	34
Tertiary	11	11
Family size		
<10	80	80
>10	20	20
Monthly income (\$)		
< 134	77	77
134 to 400	19	19
>400	4	4

1 - P_1 = Probability of not demanding for credit;

B_i = intercept;

B_2 = the slope (co-efficient);

X_i is a vector of explanatory variables and is described as follows:

X_1 = Age of respondent (in years);

X_2 = Gender of respondent (Dummy, Male = 1, Female = 0);

X_3 = Marital Status (Dummy, Single = 1, Married = 0);

X_4 = Educational level (formal education = 1, Non formal education = 0);

X_5 = Household size (in numbers);

X_6 = Family income per month (in naira);

X_7 = Farm size (in hectares);

X_8 = Interest rate (in percentage);

X_9 = Income from forest enterprises (in Naira);

X_{10} = Availability of credit (Credit is available = 1, Credit is not available = 0);

X_{11} = Credit use (Forest enterprise = 1, Consumption and land = 0);

X_{12} = Repayment term (At the beginning of the season = 1, At any other time = 0);

X_{13} = Preference for credit source (Formal = 1, Informal = 0);

X_{14} = Forest enterprise (Formal = 1, Informal = 0);

X_{15} = Profit making (In Naira/month);

X_{16} = Collateral security (Needed = 1, Not needed = 0).

RESULTS AND DISCUSSION

From Table 1, 71% of the respondents were in the work force age range, with average age of 45.5 years. Forest enterprises was male dominated, of which about 80% of them were married, and 71% of them were educated putting them in good stead for forestry extension and innovation. Average household size was 6 which is near moderate, and the average income was \$67 which is low compared with the household size of respective forest entrepreneurs, thus they need financial assistance in form of credit. This is in agreement with an earlier work carried out by Binayee et al. (2004), in Nepal, which stated that the credit available to forest based enterprises is very low compared to the individual need of credit for small forest based enterprises as stipulated in the Industrial Enterprise Act 1992.

Average interest charges was 11% which exceeded the single digit interest rate recorded. The collateral and non-collateral credit sources were almost equal, 51 and 49%

Table 2. Types of forest enterprises and profit margin.

Enterprises	Formal		Informal		
	Frequency	Profit	Enterprises	Frequency	Profit
Saw mills	28	70,000	Firewood	34	28,000
Plywood mills	17	50,000	Charcoal	38	45,000
Particleboard mills	11	47,500	Chewing stick	24	18,000
Furniture factories	44	48,000	Sculptured wood	14	12,000

Table 3. Regression result for factors that determine the borrowing behaviour of forest based entrepreneurs.

Variable	Coefficient	Standard error	P-value
Age	-0.0060692	0.076616	0.4283
Access	0.237805	1.412856	0.8663
Collateral	-0.784533	0.409859	0.0556*
Educational level	0.269121	0.488712	0.5819
Household size	0.818770	0.280307	0.2554
Interest rate	0.008471	0.056275	0.8803
Health income	0.000147	8.016-05	0.0665*
Marital status	1.568586	1.547185	0.3107
Repayment	0.163135	0.312372	0.6015
Sex	3.408524	2.390404	0.1539

Mean dependent variable 0.437500. Akaike Info criterion 0.996769. S. D. Dependent variable 0.500000. S.E. of regression 0.283041 Log likelihood -14.8662. AVG log likelihood - 0.232760. Probability (LR stat) 1.17E-06. Mc Fadden R-squared 0.660361. Level of significance at 10%.

respectively. Average repayment period was 1 year but most of their credit (51%) had no fixed repayment period perhaps, such are from informal sources. On credit usage, it was evident that most of the respondents (40%) used credit facilities to invest on their forest enterprises, but more than 20% used their own credit each on agricultural production and consumption along with land purchase.

From Table 2, it is shown that 44% of the forest based entrepreneurs were furniture makers which constitute the largest percentage of the forest entrepreneurs in the formal sector while charcoal production accounted for the largest percentage (38%) in the informal sector. The particleboard mills represented the least in the formal sector and sculptured wood as the least in the informal sector with 11 and 14% respectively. This may not be unconnected with low profit making associated with them compared with other enterprises in their respective sectors

As for the entrepreneurs who accounted for the largest percentage participation in both sectors, it was observed that both enterprises required minimal capital to start the business. And despite the fact that saw mill industries were the highest profit making business in the study, the involvement of the respondents in the study area was at variance with an earlier study conducted by Fuwape

(1998) where it was stated that saw mills accounted for 93.32% of the total number of wood based industries in Nigeria in 1997. In addition, while there were ten plywood and veneer mills in Nigeria in 1997, according to Fuwape (1998), there was an increase in the number of plywood mills in Nigeria, with about seventeen (17) of them in the study area.

From Table 3, Mc Fadden R squared value of 0.660361 revealed that the explanatory variables explain over 66% of the dependent variable, and the only policy relevant variables were collateral and monthly income, both were significant at 10%.

Negative co-efficient of collateral reveals that the more difficult the issue of collateral, the less the forest entrepreneurs will demand for credit, but in case of monthly income, the higher the income the more they demand for credit, which means they also observe the economic principle of return – to – scale that is, when capital base increases, the more their profit, hence they demand for credit.

CONCLUSION AND RECOMMENDATION

Forest based enterprises in South West Nigeria are male dominated, and these people are still in their active

working age. They are mainly literate with a moderate household size. They patronize both formal and informal credit sources and invest such credit mostly in their forest enterprises. To influence their demand for credit positively, the collateral issue on credit needs to be more entrepreneurs friendly.

As such government should, as a matter of policy intervention, provide necessary technology that will promote forest products, to increase the entrepreneurs' income and introduce a well – relaxed credit scheme for forest based entrepreneurs in south west Nigeria in particular and Nigeria in general. This will bring to bare the advantages of forest in the region and in the nation.

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