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Financing Agro-Based Small and Medium Scale Enterprises by Selected Commercial Banks in Enugu State, Nigeria

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Abstract
This study analyzed the financing agro-based small and medium scale enterprises by selected commercial banks in Enugu state, Nigeria. It specifically sought to ascertain the quantum of loans disbursed to the small and medium scale agro-based enterprises by the selected banks in the study area as well as the factors that determined such disbursements. A multi-stage sampling procedure was adopted in this study. Three Banks, namely First Bank of Nigeria (FBN) Plc, Union Bank of Nigeria (UBN) Plc and United Bank for Africa (UBA) Plc were purposively selected because they are among the top lenders to agro-based enterprises and some other economic activities in the state. Data for the study were obtained from both primary and secondary sources and analyzed through the use of descriptive and inferential statistics. The bulk of the sampled small scale agro-based enterprises (76.67%) accessed between ₦200,000 and ₦600,000 ($1,256.25 and $3,750) while 56.67% of the medium scale agro-based enterprises obtained a loan of ₦1,000,000 ($6,250). This amount accessed is too small when viewed against the high cost of doing business in Nigeria. Determinant variables such as age of entrepreneurs, interest rate, enterprise experience, category of enterprises, rate of loan repayment, and business turnover were all found to be critical factors that influence the amount of loan that are given to SMEs. It is therefore the recommendation of this study that there is need for the banks to increase the amount of loan disbursed to agro-based SMEs in other to improve and increase their production.

INTRODUCTION

Since the introduction of various economic reform programmes in Nigeria, in 1986 there has been a decisive switch of emphasis from the grandiose, capital intensive, large scale industrial projects characterized by the philosophy of import substitution to small and medium scale enterprises (SMEs). This is based on the belief that SMEs possess immense potentials for employment generation, enhanced rural income, promotion of growth of non-oil export and poverty reduction. Inang and Ukpong (1992) reported that SMEs have immense potential for developing domestic linkages for rapid sustainable industrial development.

It is believed that these benefits can be realized in Enugu State, Nigeria, because of the huge resource base of the state evidenced by its large fertile land mass, a versatile and large population, as well as abundant mineral resources. The farmers rear livestock and produce a wide variety of staple crops (e.g. cassava, yam, maize, vegetable and fruits). Domestic livestock species reared in Enugu State are cattle, sheep, goats, pigs, poultry etc. In addition to these livestock species are abundant food and cash crops including cashew, cassava, melon, maize, yam, cocoa yam, banana, breadfruit, palm fruit, African oil bean, pineapple, citrus, herb tree, etc (Enugu State Ministry of Commerce, Industry and Tourism, 2005). Despite this rich resource base of the state, the development of agro based enterprises does not appear to be in tandem with these potentials. Several reasons have been put up for the poor performance of agro-based SMEs. Among these is that they are operating under an environment of poor credit policy support which does not provide opportunity for maximization of profit in a competitive market (Eze, 2007; Ike and Chidebelu, 2003).

Many scholars have written extensively on the reluctance by commercial banks to provide production credit to farmers in particular and the real sector in general because of the inherent risk associated with production (Olaitan, 2006; Oguoma and Ohajianya, 2006). Perceived volatility of returns and a lack of familiarity of success drivers for these enterprises have made lenders to be cautions. The lending institutions face the risk of loan default if loans are disbursed to such high risk enterprises or those that exhibit high variability in earnings (Oguoma and Ohajianya, 2006). Many commercial banks have inadequate basis to establish whether agro-based enterprises have the capacity to repay loans. It is not known empirically whether adequate funds have been disbursed to specific categories of agro-based enterprises in the study area. It is on the basis of this that this study sought to analyze the quantum of loans disbursed to the small and medium scale agro-based enterprises by the selected banks in the study area as well as the factors that determined such disbursements.

Research Methodology

Study Area

Enugu State, south-east of Nigeria, is one of the thirty six states constituting the Nigeria Federation. The state was carved out from the old Anambra State in August 27, 1991. Enugu state derives its name from the capital

city, ENUGU which literally means 'Top of the Hill'. The capital city is the oldest urban area and political capital of the former Eastern Nigeria. The state is situated on the highlands of Nsukka, Udi and Awgu hills and the rolling low lands of the Idodo River Basin to the East and the Oji River Basin to the West. The state is bounded by six other states with which it shares common boundaries. It spreads southwards to the boarders with Abia state and northwards to Benue state. Other states that share common boundaries with Enugu state include Ebonyi, Imo, Kogi, and Anambra states. Apart from a chain of low hills running through Abakaliki in neighboring Ebonyi state to Nsukka in the East and the Southwards through Enugu and Awgu, the rest of the state is made up of low land crisscrossed by numerous streams and rivulets of which the major ones are the Adada, Oji, Ekulu and Ajalli Rivers.

The state is composed of seventeen local government areas divided into three agricultural zones of Nsukka, Enugu and Awgu zones. It has a population of 3.26 million made up of 1.62 and 1.63 million males and females respectively (NPC, 2006). The state's population density is two and a half times the national average. Enugu state has a rich agricultural land as a result of its location within the tropical forest and savanna belts. About 85% of the populations are farmers growing food crops such as rice, cassava, maize, yams, cocoyam, banana and a variety of fruits and vegetables. Cash crops such as oil palm and cashew are produced in large quantities. Such animals as goat, sheep, pig, poultry and cattle are also domesticated mainly at small scale level.

Sampling Procedure

A multi-stage sampling procedure was adopted in this study. Three Banks, namely First Bank of Nigeria (FBN) Plc, Union Bank of Nigeria (UBN) Plc and United Bank for Africa (UBA) Plc were purposively selected because they are among the top lenders to agro-based enterprises and some other economic activities in the state. The list of loan beneficiaries operating small and medium agro-based enterprises were collected from each of the Banks with the help of the lending/account officers.

The study population included all the small and medium sized enterprises who are utilizing loan facilities from Commercial Banks for their agribusinesses. A list of their loan beneficiaries were obtained from the lending officers in the three agricultural zones of Nsukka, Enugu and Awgu. The lists were merged and stratified into small and medium scale agro-based enterprises. After this a total of 60 small-scale and 30 medium scale enterprises were selected through a simple random sampling. This gave a total sample size of 90 respondents.

Data Collection/Analysis

Data for the study were obtained from both primary and secondary sources. The primary sources of data were collected using structured questionnaire and interview schedules. Two sets of structured questionnaires were administered. The first were administered on the respondents operating the agro-based enterprises. The second set of questionnaire was administered on the lending officers of the three selected banks. Data were analyzed using descriptive statistical tools such as the frequency distribution, mean and percentages as well as the Ordinary Least Square (OLS) Regression Analysis.

The Ordinary Least Square (OLS) Multiple Regression was used to establish the factors that determine the amount of loan disbursed to small and medium scale agro-based enterprises. Four functional forms of the multiple regressions were fitted. This includes linear, semi-log, double log and exponential functions. The lead equation was chosen based on *a priori* theoretical expectations, magnitude of the multiple regressions co-efficient (R^2) and statistical significance of the coefficients.

The multiple regression model was implicitly specified as:

$Y = f(X_1, X_2 \ldots X_n, e)$

The model is explicitly specified as follows;

1) Linear form

$Y = b_0 + b_1X_1 + b_2X_2 + b_3X_3 + \ldots b_{10}X_{10} + e$

2) Semi-log form

$Y = b_0 + b_1 \log X_1 + b_2 \log X_2 + b_3 \log X_3 + \ldots b_{10} \log X_{10} + e$

3) Double log form

$\log Y = \log b_0 + b_1 \log X_1 + b_2 \log X_2 + b_3 \log X_3 + \ldots b_{10} \log X_{10} + e$

4) Exponential form

$\log Y = b_0 + b_1X_1 + b_2X_2 + b_3X_3 + \ldots b_{10}X_{10} + e$

Where:

Y = Amount of loan accessed by SMEs in naira
X_1 = Amount of credit required in naira
X_2 = Age of entrepreneurs in years
X_3 = Interest rate
X_4 = Experience of the entrepreneurs in years

X_5 = Category of enterprise (Dummy: 1 if crop based enterprise; 0 otherwise)
X_6 = Loan repayment rate
X_7 = Number of years spent in formal education
X_8 = Business turnover in naira
e = Stochastic error term
It is expected *apirori* that the coefficients for X_1, X_2, X_3, X_5, X_6 and $X_7 > 0$ while $X_4 < 0$

RESULTS AND DISCUSSION

Types of Small and Medium Agro-based Enterprises identified in the Study Area

The data on the types of agro-based enterprises in the study area shows that 58.33% of the small scale agro-based enterprises were involved in oil milling while 20.00 percent were into pineapple production. Pineapple production accounts for 40 percent of crop-based medium scale enterprises (Table 1). The identified agro-based small and medium scale enterprise in the area is a reflection of the variety of agricultural activities and productions carried out in the State.

Amount of Loan Disbursed to Small and Medium Scale Agro-based Enterprises

Results show that the highest amount of loan disbursed to small scale enterprises by the selected bank ranged between ₦401,000 and ₦600,000 (Table 2). This is equivalent to ($2,506.25 - $3,750) using the current average exchange rate of ₦160 per $1. The number of small scale enterprises that benefited from this disbursement was 28 agro-based enterprises representing 46.67 %. The bulk of the sampled small scale agro-based enterprises (76.67%) accessed between ₦200,000 and ₦600,000 ($1,256.25 and $3,750) during the period of study. This amount accessed is too small when viewed against the high cost of doing business in Nigeria. It is on record that the provision of power is a costly factor of production and its inadequacy has affected the survival of most small and medium enterprises in the country.

Again, 56.67% of the medium scale agro-based enterprises obtained a loan of ₦1,000,000 ($6,250) or less. Only one of the sampled medium scale agro-based enterprise accesses between ₦5,000,000 and ₦6,000,000 ($31,250 and $37,500) which was the highest amount disbursed by the banks during the period of study. This goes to show the inadequacy of credit relative to its demand for agricultural business activities in the area (Ike, 2009).

Factors that Determine the Amount of Loan Disbursed to Small scale Agro-based Enterprises

Several factors were examined to estimate their effects on amount of loan disbursed to the various small scale agro-based enterprises. These factors are amount of credit applied for, age of entrepreneurs, Interest rate, enterprise experience, category of business, loan repayment rate, level of educational attainment, and business enterprise turnover.

The result of the four functional forms of the multiple regression analysis carried out to estimate the effect of these factors is presented in Table 3. The result shows that the exponential function produced the highest value of the coefficient of multiple determination (R^2), the highest number of significant variables and conformed to *apriori* expectation. The test of significance of the R^2 produced an F-value of 7.7678 which was significant at 0.01 levels, implying that the exponential function gave a good fit to the data and was then taken as the lead equation for discussion. The coefficient of multiple determination was found to be 0.806 implying that about 80.6% of the variation in amount of loan disbursed to small scale agro-based enterprises is jointly accounted for by the significant variables.

The coefficients of five variables; interest rate (X_3), enterprise experience (X_4), category of enterprises (X_5), rate of loan repayment (X_6), and business turnover (X_8) were statistically significant implying that these variables are important factors that determine the amount of loan disbursed to small scale agro-based enterprises by the sampled. The coefficient for interest rate (X_3) was significant at 10% and positive. This implies that enterprises that demonstrate the ability to pay a higher interest had the opportunity of accessing more funds. Enterprise experience (X_4) was significant at 1% and had a positive sign. This implies that the amount of loan disbursed to small scale agro-based enterprises increases with years of business experience. This means that entrepreneurs with long business experience are given more loans.

The coefficient for category of enterprise (X_5) was significant at 5% and had a negative sign. This indicates that livestock based small scale enterprises benefited more from the loans than crop-based enterprises. It implies that a higher amount is disbursed to livestock based enterprises. This may be as a result of the lower risk profile of livestock based enterprises. The coefficient for repayment rate (X_6) was significant at 5% and had positive sign. This implies that the amount of loan disbursed to the business enterprises increases with the rate of repayment of borrowed fund. An increased loan repayment rates makes more funds available for disbursement. Finally, the coefficient for turnover (X_8) was significant at 1% and had a positive sign. This shows that the amount of loan disbursed to a business enterprise increases with an increase in business turnover. Small scale

enterprises with a higher turnover benefit more from the banks.

The null hypotheses that the amount of loan disbursed to small scale agro-based enterprises in not significantly influenced by interest rate, enterprise experience, category of enterprise, repayment rate and business enterprise turnover is therefore rejected.

Factors that Determine the Amount of Loan Disbursed to Medium scale Agro-based Enterprises

The result of the multiple regression analysis of factors influencing the amount of loan disbursed by the selected banks to medium scale agro-based enterprises is shown on Table 4.

The results show that the double log function produced the highest value of the coefficient of multiple determination (R^2) (0.652) and the highest number of significant variables. The test of significant of the R^2 produced an F-value of 3.53 which was significant at 1 %, implying that the double log function gave a good fit and was therefore taken as the lead equation and for discussion.

In addition to the coefficients of age (X_2) variable, the other five variables; interest rate (X_3), enterprise experience (X_4), category of enterprises (X_5), rate of loan repayment (X_6), and business turnover (X_8) were statistically significant implying that these variables are important factors influencing the amount of loan disbursed to medium scale agro-base enterprises in the study area.

The coefficient for age (X_2) was significant at 5% and had a negative sign. This implies that the older the entrepreneurs, the lower the amount of loan disbursed to them. Younger entrepreneurs are believed to be risk takers who are willing to venture into new business to increases their returns and faster in decision making, unlike the older entrepreneurs who are usually slow in taking decision and are risk averse.

Apart from the differences in the level of significance, all the variables that affected the amount of loan disbursed to small scale agro-based firms also affected that of the medium scale agro-based firms. For instance, the coefficient for interest rate (X_3) was significant at 5%, enterprise experience (X_4) was also significant at 5% and had a positive sign implying that entrepreneurs with long business experience are given more loans. The coefficient for category of enterprise (X_5) was also significant at 5% and as well had a negative sign indicating a preference to fund livestock enterprises than their crop counterparts. The coefficient for repayment rate (X_6) was also significant at 5% and had positive sign while that of enterprise business turnover (X_8) was also significant at 1% and had a positive sign showing that the amount of loan disbursed to a business enterprise increases with an increase in business turnover.

CONCLUSION

This study has attempted to identify the various types of small and medium scale agro-based enterprises prevalent in Enugu State. It established that only a small percentage of the loan applied for was accessed. The bulk of the sampled small and medium scale agro-based enterprises accessed very small loans when viewed against the high cost of doing business in Nigeria. It is on record that the provision of power is a costly factor of production and its inadequacy has affected the survival of most small and medium enterprises in the country. Some determinant variables such as age of entrepreneurs, interest rate, enterprise experience, category of enterprises, rate of loan repayment, and business turnover were all found to be critical factors that influence the amount of loan that are given to SMEs.

It is therefore the recommendation of this study that there is need for the banks to increase the amount of loan disbursed to agro-based SMEs in other to improve and increase their production. The banks should also prioritize such variables like turnover, experience, and repayment rate in designing criteria for selecting agro-based loan beneficiaries and as well increase their lending to female agro-based SMEs to encourage more women to establish agro-based SMEs.

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Table 1: Distribution of respondents according to type of agro-based Enterprises

Small Scale Agro-based Enterprises			**Medium Scale Agro-based Enterprises**		
Crop-based	**Freq.**	**%**	**Crop-based**	**Freq.**	**%**
Oil milling	35	58.33	Vegetable oil production	5	16.67
Cassava prod/processing	30	50.00	Pineapple production	10	40.00
Pineapple production	12	20.00	Confectionaries	7	26.00
Gari processing	20	33.33	Rice production	1	4.17
Livestock based	**Freq.**	**%**	**Livestock based**	**Freq.**	**%**
Poultry	30	50.00	Poultry	10	40.00
Fishery	15	25.00	Fishery	7	25.00
Snailry	5	8.33	Dairy products	5	16.67
Dairy products	10	16.67			
Animal husbandry	10	16.67			
Animal feed	15	25.00			
Honey production	5	8.33			

Multiple responses recorded

Table 2: Volume of Loan Disbursed by the Selected Banks to Small and Medium Scale Agro-based Enterprises.

Small Scale Agro-based Enterprises			**Medium Scale Agro-based Enterprises**		
Loan amount	**Frequency**	**Percentage**	**Loan amount**	**Frequency**	**Percentage**
0-2000,000	0	0.00	0 – 1,000,000	17	56.67
201,000-400,000	18	30.00	1,100,000–2,000,000	1	3.33
401,000-600,000	28	46.67	2,100,000–3,000,000	5	16.67
601,000-800,000	2	3.33	3,100,000–4,000,000	1	3.33
801,000-1,000,000	12	20.00	4,100,000–5,000,000	5	16.67
1,000,000 and above	0.00	0.00	5,100,000–6,000,000	1	3.33
Total	**60**	**100.00**		**30**	**100.00**

Table 3: Factors Determining the Amount of Loan Disbursed to Small Scale Agro-Based Enterprises

Explanatory variables and important statistics	**Functional Forms**			
	Linear	**Semi-log**	**Double log**	**Exponential**
Credit requirement (X_1)	-0.00301	-237.994	-0.03604	-2E106
	(-1.45936)	(-1.55273)	(-0.14326)	(-0.67235)
Age (X_2)	0.001904	141.6484	0.6062	3.81E.07
	(0.67893)	(1.48915)	(0.38836)	(0.08795)
Interest rate (X_3)	994.0136	1242055	0.13212	1.152366
	(2.49752)**	(2.76867)*	(1.79452)	(1.87477)*
Enterprise experience (X_4)	0.00224	532.1934	0.649034	3.06E06
	(3.42843)*	(3.20503)*	(12.38167)**	(6.03494)***
Category of enterprise (X_5)	-0.08396	-363.602	-0.69427	-0.0002
	(0.04031)	(-2.34278)**	(-2.7257)	(-2.18404)**
Repayment rate (X_6)	0.499406	78.71623	0.07777	0.000362
	(3.062617)*	(2.564974)	(0.24124)	(2.248135)**
Education (X_7)	-7.17092	-520.221	-0.02854	-0.010654
	(-0.43156)	(-1.22029)	(-0.04079)	(0.415187)
Turnover (X_8)	370.7633	370.7633	-0.62004	0.114108
	(1.71083)	(1.71083)	(1.74333)	(6.73465)***
Constant	-1498.51	-1623.35	1.49	2.78
R^2	0.753418	0.828	0.847	0.806
F-value	5.728969	9.009934	10.3489	7.7678

Figures in parenthesis are t-ratios *** = significant at 1%, ** = significant at 5% *Sig. at 10%

Table 4: Factors Determining the Amount of Loan Disbursed to Medium Scale Agro-based Enterprises

Explanatory variables and important statistics	Functional Forms			
	Linear	Semi-log	Double log	Exponential
Credit requirement (X_1)	-0.19966	-5100.78	-6.7843	-0.0039
	(-0.254270	(-1.225250	(-1.70174)	(-0.4416)
Age (X_2)	-0.9483	-509.541	-0.67291	-00088
	(-2.63174)**	(1.79915)	(-2.48811)**	(-2.17984)**
Interest rate (X_3)	-0.73309	282.9014	0.350754	0.000407
	(0.2218)	(2.19312)**	(2.839419)**	(0.12592)
Enterprise experience (X_4)	-1.72511	-171.932	-0.23888	-0.00246
	(-0.54885)	(-1.5811)	(2.29392)**	(-0.69894)
Category of enterprise (X_5)	-0.028	-43.6895	-0.07772	-1.5E.05
	(-1.8959)	(-1.13591)	(-2.11009)**	(-1.53462)
Repayment rate (X_6)	2.64199	570.0183	0.580795	0.002369
	(3.062617)**	(2.564974)**	(2.729084)**	(-2.45384)**
Education (X_7)	-18.8975	-732.309	-0.69683	-0.01675
	(-1.53017)	(-1.73285)	(-1.72184)	(-121223)
Turnover (X_8)	1.785387	127.3045	0.124864	-0.0012
	(0.098976	(2.614654)**	(6.629541)***	(4.05926)***
Constant	2798.846	46028.28	67.0628	9.290574
R^2	0.607	0.600	0.652	0.533
F-value	2.89	2.81295	3.518029	2.143098

Figures in parenthesis are t-ratios *** = significant at 1%, ** = significant at 5% *Sig. at 10%

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