

EFFECT OF LENDING CRITERIA ON FEMALES' ACCESS TO CREDIT FROM BANK OF AGRICULTURE ABIA STATE, NIGERIA.

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Abstract

The study was carried out on the effect of lending criteria on females' access to credit from Bank of Agriculture, Abia State Nigeria. Primary data were obtained through the use of structured questionnaire. Three units of the financial institution located in the three agricultural zones of the state were purposively selected in each of the three agricultural zones. One hundred and fourteen (114) female credit applicants consisting of seventy-six (76) credit beneficiaries and thirty-eight (38) non beneficiaries were randomly selected from the units across the three agricultural zones and three (3) credit officers interviewed. Data were analyzed using rank ordering and inferential statistical tool such as Ordinary Least Square Regression model and z-test. The result showed the ranking order of the lending criteria as guarantor, service charge, equity and main occupation. Regression result identified the significant lending criteria that effect access to credit to include age and service charge of the female farmers which were significant at 5 percent and 1 percent respectively but, were negatively related to access to credit. Level of education (5 percent), marital status (1 percent), equity (5 percent), guarantor (10 percent) and farm income (10 percent) were significant and had positive relationship with access to credit. Recommendation was that Bank of Agriculture should encourage group lending among the female farmers as this would resolve the problem of providing two guarantors as a lending criterion. There is need to review the service charged on credit and the required percentage of equity contribution by the lending institution. This would help minimize the deductions from the farm capital need of the credit beneficiaries.

Keywords: Lending criteria, access to credit, female farmers and Bank of Agriculture.

Introduction

Concern is growing because lending to female farmers by credit institutions is becoming increasingly difficult. Female farmers account for over 60 percent of agricultural output as in the case of Nigeria yet, constitute the majority of those financially handicapped in the rural areas due to limited access to credit facilities (World Bank, 1996; Odoemenem and Obinne, 2010). Agricultural credit is a necessity in increasing the capital base of women farmers. Women farmers, like most small-scale farmers in Nigeria, do not always have enough funds for farming. The poor attention given to women

farmers who constitute the majority of farm labour force has led to deterioration in the country's food situation. Not only are there widening food supply-demand gaps, there are also rising import bills (Tanko, 1993).

Credit is an input used in production as well as a facilitator of the efficiency of other production input. It enhances the production capacity of the poor resource farmers through financial investment in their human and physical capital (Okurut *et al.*, 2004). Agricultural credit is seen as an undertaking by individual farmers or farm operators to borrow capital from intermediaries for farm operation (Odoh *et al.*, 2009). According to Olayemi (1998), credit involves all advances released for farmers' use to satisfy farm needs at the appropriate time with a view to refunding it later. Thus credit can be in the form of cash or kind, obtained either from formal, semi-formal or informal sources.

Lending is one of the services that banks do render to their customers. Lending may be on short, medium or long-term basis. Bank of Agriculture (BOA) has the mandate to provide low cost credit to smallholder and commercial farmers, and small and medium rural enterprises. BOAs also provide micro financing to small and medium scale non-agricultural enterprises. BOAs aim is to ensure effective delivery of agricultural and rural finance services on a sustainable basis to support the national economic development agenda, including food security, poverty reduction, employment generation, reduction in rural to urban migration, less dependency on imported food items, and increase in foreign exchange earnings (BOA, 2015). Lending criteria are policies that are set in place to create universal guidelines within a financial institution for all potential borrowers. Lending standards may vary from one financial institution to another and from one region to another (Investorword, 2015). This is displayed in the form of prescribed minimum loan amounts, complicated application procedures and restrictions on credit for specific purposes (Schmidt and Kropp, 1987). This process includes among others the credit appraisals, documentations, disbursement, monitoring and recovery processes (MacDonald and Koch, 2006). However, commercial banks' decisions to lend out loans are influenced by a lot of other factors such as the prevailing interest rate, the volume of deposits, the level of their domestic and foreign investment, banks liquidity ratio, prestige and public recognition to mention a few (Olokoyo, 2011).

Bank of Agriculture considered certain lending criteria in selecting credit beneficiaries and the amount of credit which the bank granted the beneficiaries just like other financial institutions. The applicants of credit in Bank of Agriculture are required to meet specified lending criteria (conditions). The conditions are both quantitative and qualitative in nature. These include among others; beneficiaries must be a genuine farmer residing in the study area (Abia State) with a realistic residential address; beneficiaries must possess 20 percent lien security of loan amount requested in his/her account with Bank of Agriculture and beneficiaries must be charged 12 percent of the amount of credit to be received as the service charge for the credit facility. A beneficiary must present two guarantors before any credit facility is advanced. The beneficiaries must sign agreement with the bank (BOA, 2015). Ever since the establishment of BOA, coupled with policies put in place over the years, one would have thought that the problem of agricultural credit inadequacies would have been solved. The problem still persists and bedeviled with many bottlenecks in the administration of credit facilities. A detailed understanding of the effect of lending criteria on access to credit among the female farmers in Abia state provides necessary information towards designing a more effective and sustainable credit system that can serve resource poor female farmers better. For lending organizations of various kinds, the results of this study may help in the identification and design of innovations in lending policy to expand their outreach to these female clientele. From the foregoing therefore, this study aimed at addressing the broad objective of the study which was to assess the effect of lending criteria on access to credit among female farmers in Abia State.

The following hypotheses were tested in this study
The following hypotheses were tested.

1. There is no significant relationship of the lending criteria on access to credit among the female farmers.
2. There is no significant difference between the mean values of the amount of credit requested and amount obtained by the farmers.

Methodology

Study Area

The study was carried out in Abia State, Nigeria. Abia state is one of the thirty-six states of the Federal Republic of Nigeria. The state is located in the Southeast agroecological zone of Nigeria. Abia state lies between longitudes 7⁰⁰E and 8⁰⁰E and latitudes 4⁰⁴' N and 6⁰¹⁷' N of the equator. The vegetation is predominantly lowland rainforest and major crops grown are arable crops (e.g. Cassava, rice, yam, maize, melon) others include banana, plantain, vegetables etc. Major cash crops grown in the state include oil palm, kola nuts, cocoa, rubber, oranges, other farming activities include sheep and goats rearing, poultry and rabbits etc (World Bank, 2000).

According to National Population Commission (2006). Abia State has a total population of about 2,845,380 comprising 1,430,298 males and 1,415,082 females representing 49.7 percent of the total population. Abia State comprises 17 Local Government Areas (L.G.A's) in three agricultural zones namely Aba, Ohafia and Umuahia. There are some lending institutions in the study area such as commercial banks including First Bank of Nigeria Plc, United Bank of Africa and specialized financial institution such as Bank of Agriculture.

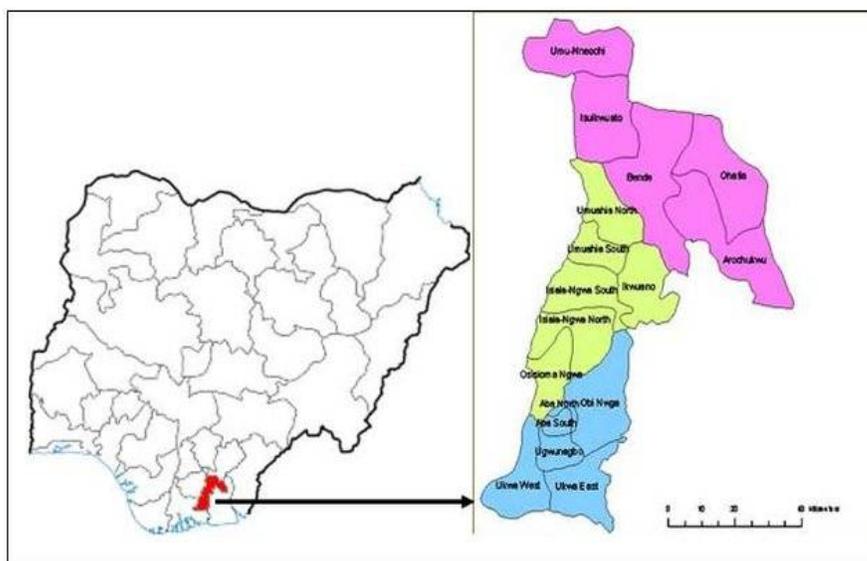


Figure 1: Geographical location of Abia State.

Sampling

Female farmer respondents were randomly selected through a multi-stage stratified sampling technique. Bank of Agriculture was purposively selected for the study. First, the three units of Bank of Agriculture were purposively selected based on the location of the units of the financial institution in each of the three agricultural zones. These formed the primary sampling strata. The units of the lending institution are Umuahia, Isuochi and Obehie; represent Umuahia, Ohafia and Aba agricultural zones respectively of the state.

Secondly, from the list of all the individuals that made applications for credit during the 2014 planting season, male applicants were separated from female applicants. Thirdly, simple random sampling method was used to select 114 applicants consisting of 76 credit beneficiaries and 38 noncredit beneficiaries. Three (3) credit officers interviewed for the purpose of the study. For the year under study, a total of 250 female farmers' applications were received by Bank of Agriculture in the study area.

Primary data were used for the study. Structured questionnaire were administered to female farmers' credit applicants of Bank of Agriculture in the state through the assistance of the banks' credit officers. Data were collected during August and September 2015. Data collected were analyzed using rank ordering; the lending criteria were ranked using simple statistical tools such as frequencies and percentages, regression model was used to measure the effect of lending criteria on access to credit on the female farmers' in the study area.

The model is implicitly stated as follows;

$$Y = f(X_1, X_2, X_3, X_4, X_5, X_6, X_7, X_8, X_9, X_{10}, X_{11}, X_{12}) \quad (1)$$

Where;

Y = Access to credit (volume of credit received in naira)

X₁ = Age of the respondents (years)

X₂ = Marital status (married = 1, single = 0)

X₃ = Educational level (years)

X₄ = Main occupation (1=farming, 0=otherwise)

X₅ = Farm size (hectares)

X₆ = Equity (naira)

X₇ = Guarantor (1 =yes, 0 =no)

X₈ = Years of farm experience (years)

X₉ = Membership of cooperative (1=yes, 0=no)

X₁₀ = Ownership of account (1 = yes, 0 = no)

X₁₁ = Service charge (naira)

X₁₂ = Annual farm income (naira)

Also, Z-statistic was further employed to ascertain the effect of access to credit to test differences in the

mean values of the amount of credit applied and amount obtained by the farmer

Decision rule: reject H₀ (null hypothesis) if the computed Z- value exceeds the critical or table value. The Z-statistic is expressed as follows;

$$Z = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{\delta_1^2}{n_1} + \frac{\delta_2^2}{n_2}}} \quad (2)$$

Where; \bar{X}_1 = Mean amount of credit requested by respondents

\bar{X}_2 = Mean amount of credit obtained from BOA by respondents

δ_1^2 = Variance of mean amount of credit requested by respondents

δ_2^2 = Variance of mean amount of credit obtained by respondents

n₁ = Sample Size of the credit beneficiaries

n₂ = Sample size of non-credit beneficiaries

Results and Discussion

Lending criteria ranking in Bank of Agriculture

The three credit officers of Bank of Agriculture in the three agricultural zones ranked twelve lending criteria (variables) in order of their importance (starting from number 1 as the most important criterion and so on) before an applicant can be granted a credit facility in the bank. The summary of the rankings of the various lending criteria was presented in Table 1. The mean values from Table 1 were used for the ranking of the lending criteria as were given by the three credit officers of Bank of Agriculture in Abia state. The mean indicates the average ranking each item received. From the ranking, "1" is the highest ranking; therefore, the item with the lowest mean is the one that was ranked most highly ranked.

Table 1 indicates the order of ranking of the lending criteria according to the bank as important factors considered before granting a credit facility as guarantor, service charge, equity, main occupation, annual income, farming experience, farm size, age, savings deposited, marital status, membership of cooperative and educational level.

Ability to provide two guarantors as required by the bank, prospective borrowers who could contend bank's service charge, ability to provide equity contribution on credit demanded which was twenty (20) percent of the credit amount requested had more advantage for credit approval. Size of the farm enterprise was also shown to be one of the factors considered by the bank for credit allocation. Borrowers that are at their youthful ages were also considered by the bank.

Table 1: Bank's lending criteria rank ordering

Lending criteria	Zone			Total	Mean	Rank ordering
	Umuahia	Ohafia	Aba			
Guarantor	2	1	3	6	2	1
Service charge	1	4	2	7	2.3	2
Equity	7	2	1	10	3.3	3
Main occupation	5	5	6	11	3.7	4
Annual income	3	7	4	14	4.7	5
Farm experience	4	6	7	17	5.7	6
Farm size	8	9	5	22	7.3	7
Age	6	8	9	23	7.6	8
Savings deposited	12	3	11	26	8.7	9
Marital status	10	10	8	28	9.3	10
Membership of cooperative	9	11	12	32	10.7	11
Education	11	12	10	33	11	12

Source: Field data, 2015

Effect of lending criteria on access to credit

Data set collected on lending criteria were further analyzed using regression model to estimate the

effect of these lending criteria on access to credit among the female farmers in the study area. The regression result was presented in Table 2.

Table 2: Regression estimates of the effect of lending criteria on access to credit

Explanatory variable	Coefficient	T-value
Constant	31983.088	2.352*
Age	-1162.947	-3.083**
Marital status	16443.596	2.161*
Education	5793.567	2.555**
Main occupation	-1014.657	-0.385
Farm size	-338.121	-0.115
Equity	1140.003	2.450**
Guarantor	25534.244	2.602*
Farming experience	-260.201	-0.438
Membership of cooperative	2189.934	0.413
Bank account in BOA	14755.596	1.635
Service charge	-5.731	-14.680***
Farm income	0.024	1.715*
R ²	0.958	0.854
R ² adjusted	0.918	0.828
F-ratio	104.068***	35.952***

Source: Results from field data, 2015

*** = significant at 1.0 percent

** = significant at 5.0 percent

* = significant at 10 percent.

Linear functional form gave the best fit for the effect of lending criteria on access to credit. This was therefore chosen for explaining the effect of lending criteria on access to credit among the female farmers. The choice of lead equation was based on the value

of the coefficients of multiple determinations (R²), F statistics, sign of the coefficients of the explanatory variables in conformity with theory.

The R² value was 0.918 indicating that the explanatory (lending criteria) variables in the model

explained 91.8 percent of the total variations in access to credit while 8.2 percent could not be captured by the variables included in the model. Marital status, education, equity, guarantor, and annual farm income were positive and significant lending criteria that affect access to credit while, age and service charge were significant and negatively related access to credit.

Age of the female farmers was significant at 5 percent and negatively related to access to credit. This result suggests that credit allocation to the female farmers decrease with increasing age of the farmers. This result is in line with the findings of Olagunju and Ajiboye (2010) that most or nearly all agricultural activities are believed to be tedious and energy draining by most of the women and that female farmers are expected to be physically and economically active. Eze *et al.*, (2009); Asogwa *et al.*, (2014) also reported that age was negatively related to access to credit because as the age of respondent increases, access to credit decreases with age since farmers become more risk averse, they become less productive and innovative.

Marital status was significant at 10 percent and positively related to access to credit indicating that being married increase respondents access to credit by ₦ 16,443.95. The decision by the lending institution to impose marital status as a lending criterion on the applicants may be due to the ability married respondents to efficiently manage and utilize resources as home keepers including credit and that they can easily be traced to their locations in case of default. Moreover, their husbands could bail out their wives in such eventualities. In line with a related study by Ogbe (2009), in which mostly married respondents were selected for credit allocation reported that they are responsible and are of good standing in the society.

Level of education of female farmers was significant at 5 percent and positively related to access to credit. The educational attainment of the farmer maintained a positive relationship with access to credit. This increases the ability to understand and evaluate the information on new farming techniques and processes as disseminated through extension agents. This is consistent with the reports of Nwaru (2005), that an educated farmer allocates farm resource more efficiently.

Equity was statistically significant at 5 percent with a positive relationship to access to credit. This indicates that there is a positive effect of equity contribution on the amount of credit access. An increase in the respondent's equity would increase the amount of credit the farmer obtains. Equity contribution is the 20 percent lien security of loan amount required by the lending institution (BOA). This is true to afore mentioned lending criteria as

obtainable in Bank of Agriculture. The higher the farmer's ability to make available higher percentage of equity contribution, the more the range of her credit accessibility.

Farmers' access to credit was positively affected by availability of guarantor. Guarantor was significant at 10 percent with a positive relationship. This indicates that the ability of the respondent to provide the required number of two guarantors, increases access to credit. This is in contrary with Dzadze (2012), where access to credit was found to be independent on the availability of guarantor to secure the credit. That was due to the group lending methodology used by the lending institution where the study was carried out. Unlike in Bank of Agriculture availability of a guarantor is a major lending criterion since credit were advanced even more to unorganized individuals.

Service charge (interest rate) was significant at 1 percent and negatively related to access to credit. This implies that as the service charge increases the amount of credit access decreases. If the service charge is high, the tendency of accessing credit facilities by the female farmers reduces drastically. Service charge was significant at 10 percent with a negative coefficient. This is the unit cost of taking credit as the prices increase, credit accessibility decreases and vice visa. The implication is that the negative effects of service charge on access to credit were disincentive to access to credit among the female farmers surveyed. This in line with the findings of Nwaru (2005); Eze *et al.*, (2009) and Ike *et al.*, (2009) who variously asserted that the demand for credit decreases with an increase in its cost (interest rate).

Annual farm income was significant at 10 percent and positively related to access to credit indicating that as the farm income increases access to credit increases. High farm income can guarantee the ability of borrower equity contribution, pay service charges and other transaction costs. Utilization of credit increases net farm income (Olagunju and Ajiboye, 2010).

TEST OF HYPOTHESES

1. The estimated parameters (lending criteria) that were significant and had positive effect on access to credit were marital status, education, equity contribution, availability of guarantor and income while age and service charge were negatively related to access to credit.
2. Null hypothesis, there is no significant difference between the mean values of the amount of credit requested and amount obtained by the farmers was tested by Z-test and result presented in Table 3.

Table 3: Summary of means and Z-test for differences between amount of credit requested and obtained by the beneficiaries

Variable	Mean (₦)	Variance	Df	Z-cal	Z-tab
Amount of credit requested(₦)	176052.6	3.42e+09	75	2.04	1.68
Amount of credit obtained(₦)	157894.7	2.60e+09			

Source: field data, 2015

Hypothesis 2 was rejected since the Z-calculated (2.04) is greater than Z-tabulated (1.68). the mean difference between the mean values of the amount of credit requested and amount obtained by the farmers were tested by Z-test and result show significant at 5% level. The result indicates that the mean value of credit supply was significantly lower than the mean value of credit demand at 5 percent. This may be attributed to beneficiaries not being able to meet up with lending criteria that could had granted their equal credit demand or from the supply side (BOA); it could also be shortage of loanable funds at the lending institution.

Conclusion

The study was carried out on lending criteria and the effect on access to credit among female farmers in Abia state, Nigeria. The findings of the study serve as the basis for making the following conclusions that Bank's lending criteria had a major role in allocating the scarce productive resource (credit) among the female farmer applicants. Lending criteria enabled the bank to screen the applicants and to make unbiased decision on disbursement of credit to the numerous applicants in the study area. Bank's lending criteria were indispensable tool in access to credit.

Recommendation was made that the lending institution (Bank of Agriculture) should accommodate the unmarried who are able to meet up with the other lending conditions. This can ensure higher productivity among the unmarried credit applicants. The study recommends group lending to female farmers because they find it difficult to find individual willing to stand as guarantor. The negative relationship of service charge and the positive effect of equity contribution on the study would directly reduce the actual amount of capital requirement of the credit beneficiaries for efficient execution of farm operations. Review of both service charged on credit and equity contribution requirement by the lending institution may be necessary. This would further help minimize the deductions from the farm capital need of the credit beneficiaries.

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