SI Science International

OPEN ACCESS

Factors Influencing Women's Access to Microfinance Loans in Bauchi State, Nigeria

[1]Aishatu Bakari Usman, [2]Usman Haruna, [1]Murtala Nasiru and [1]Haruna Abdullahi Danwanka
[1]Department of Agricultural Economics, Faculty of Agriculture and Agricultural Technology, Abubakar Tafawa Balewa University, Bauchi, Nigeria
[2]Department of Agricultural Economics and Agribusiness, Federal University, Dutse, Jigawa, Nigeria

ABSTRACT

Background and Objective: Access to finance is one of the major factors impeding the growth of women-owned businesses in Nigeria. It has been ascertained that the improvement of the socio-economic status of women is dependent on their access to credit. This study, therefore, analyzed factors influencing women's access to microfinance loans in Bauchi State, Nigeria. **Materials and Methods:** A multistage sampling procedure was employed in sampling 490 respondents, 360 loan beneficiaries and 130 non-beneficiaries. Data were collected through the use of a questionnaire and analyzed using descriptive statistics and logit regression. The significance levels at which the results were obtained include $p<0.01$, $p<0.05$ and $p<0.10$. **Results:** The results revealed mean age of the respondents was 41.63 years for beneficiaries and 41.64 years for non-beneficiaries. Most (84.2%) of loan beneficiaries and 73.8% of non-beneficiaries were married with a mean household size of 9 and 18 persons, respectively. The results also revealed that all the respondents were small-scale producers, with an average of 14 years of experience. Factors influencing access to loans were, age, education and years of experience, all are significant ($p<0.01$). Beneficiaries reported short loan terms (86.1%), inadequate loan amount (57.5%) and high-interest rates (56.4%) as major constraints in accessing loans. **Conclusion:** The factors that influenced access to loans were age, household size and education of the women in the study area.

KEYWORDS

Agricultural production, micro-finance, loans, women farmers, Bauchi, Nigeria

INTRODUCTION

Microfinance has been instrumental in the provision of credit to women[1]. Microfinance is not new in Nigeria, as it has been a cultural practice of the people, especially women whereby individuals or groups with a common interest in raising capital for business or growing an already existing business have for centuries had the culture of pooling their resources known as "*adashe*" or "*ajo*" in order to provide credit for members or even non-members with or without interest. These informal groups or associations can be said to be providers of microfinance services in the forms of loans, savings and even insurance. "*Adashe*" or "*ajo*" have a limited capital base and limited outreach. Microloans increase household consumption, give women more clout in their communities, encourage the use of contraceptives and

ISSN: 2305-1884 (Print)
https://doi.org/10.17311/sciintl.2023.26.33

Received: 10 Mar. 2023
Accepted: 29 Jul. 2023
Published: 19 Aug. 2023

improve the nutrition of young children. Microfinance institutions (MFI) provide a broad range of services, examples include the provision of funds for micro and small-scale enterprises which are vital to the private sector developments[2] and is being perceived as an engine of growth for the economies of most developing countries.

In Nigeria, women play major roles in the production of food crops and also undertake other economic activities such as processing and trading agricultural produce to earn cash. This is similar to what is obtainable in other African countries, as emphasized by a study in Mali[3]. There may be differences in agreement as to the extent of involvement of women in agricultural production, but it cannot be argued that they are active and indispensable participants in all aspects of agricultural production, ranging from production to processing and marketing. Their job as mothers, wives and citizens have always been combined with the economic role of being food producers in many parts of Nigeria. Women's roles in agricultural activities differ as there is great diversity in gender relationships from one part of Nigeria to another. Women constitute over 60% of the poorest people in developing countries[4]. Access to finance is often cited as one of the major factors impeding the growth of women-owned businesses in such countries. The improvement of the socio-economic status of women is dependent on their access to credit. This may enable women to expand their businesses and social capital and in turn improve their socio-economic status. Women's access to finance will improve the livelihood of women and that of their children, particularly because of the role they play in raising children, as studies have shown that the nutrition and health of children increase with the economic empowerment of women[4]. Although research has been carried out on factors affecting access to finance[5], not much has been done on the access to microfinance loans among women in Bauchi State, Nigeria. It is against this background that the study intends to investigate the factors that affect women's access to microfinance loans in Bauchi State, Nigeria. The objectives of the study were to:

- Describe the socioeconomic characteristics of the women farmers in Bauchi State
- Determine the factors influencing women's access to microfinance loans in the state and ascertain constraints faced by women in accessing loans in Bauchi State

MATERIALS AND METHODS

Study area: The study was conducted in Bauchi State of Nigeria. Bauchi State is located between Latitude 9.30 and 12.30 N and Longitude 8.50 and 110 E. It has a land area of 49,119 km^2. The state is located within the Sudan and Sahel vegetation zones of Nigeria. It has twenty Local Government Areas (LGAs). It is made up of three agricultural zones as zoned by the Bauchi State Agricultural Development Programme (BSADP), North, Central and Western zones, each zone having a marked climatic pattern and defined agricultural activities namely, Northern Zone, comprising of Dambam, Gamawa, Giade, Itas Gadau, Jama'are, Katagum, Misau, Shira and Zaki LGAs. Central Zone, Darazo, Ganjuwa, Ningi and Warji LGAs. The Western Zone of the state consists of Alkaleri, Bauchi, Bogoro, Dass, Kirfi, Tafawa Balewa and Toro LGAs. The state records an annual rainfall of 700 mm in the North and 1300 mm in the South. Temperature ranges from 29.20°C in July and August to 37.60°C in March and April. As of 2015, the NBS estimated a population of 4,889, 811.2, with a growth rate of 3.6%. The study was carried out in 2020, cross-sectional data were collected from February, 2020 to April, 2020.

Sampling procedure and data collection: A multistage sampling procedure was employed. Bauchi State is divided into three agricultural zones, Northern, Central and Western Zones. LGAs from each of the agricultural zone were purposively selected based on the availability of functional MFIs, giving, 3 LGAs from the Northern Zone (Jama'are, Shira and Katagum), 1 LGA from the Central Zone (Ningi) and 2 LGAs from the Western Zone (Tafawa Balewa and Toro). Beneficiaries and non-beneficiaries of microfinance

loans were randomly selected to give a sample size of 490 respondents. The study used primary data that were collected by the use of a questionnaire administered to female crop and livestock farmers, agro-processors and sellers of food and food production.

Methods of data analysis and model specification: Data were analyzed using descriptive statistics, frequencies, percentages, means and rankings. Logit regression was used to determine the factors influencing access to microfinance loans. The specification of the logit regression model used is:

$$LogY = b_0+b_1logX_1+b_2logX_2+b_3logX_3+b_4logX_4+b_5logX_5+b_6logX_6+u \quad (1)$$

Where:

Y = Access to loan (1 = Accessed and 0 = Not accessed)
X_1 = Age of women (years)
X_2 = Marital status (1 = Single, 2 = Married, 3 = Divorced and 4 = Widowed)
X_3 = Household size (number)
X_4 = Level of education (1 = Non formal, 2 = Primary, 3 = Secondary and 4 = Tertiary)
X_5 = Years of experience (years)
X_6 = Type of enterprise (1 = Crop, 2 = Livestock, 3 = Poultry, 4 = Processing and 5 = Marketing)
X_7 = Size of enterprise (numbers)
X_8 = Level of income (Naira)
X_9 = Cooperative membership (1 = Member and 2 = Non-member)
b_i = (i = 1...9) regression coefficients
b_0 = Constant term of intercept
u = Error term

Statistical analysis: The statistical analyses used on the data include the use of measures of central tendency in the form of frequencies, percentages and means. Also, inferential statistics used was the logit regression analysis to determine the factors influencing women's access to microfinance loans in the study area. The significance levels at which the results were obtained include $p<0.01$, $p<0.05$ and $p<0.10$.

RESULTS AND DISCUSSION

Socio-economic characteristics of the respondents: The socio-economic parameters in the study include age, marital status, household size, level of education and years of experience. Others are the level of income and years as a cooperative member. The result for the socio-economic characteristics of respondents as presented in Table 1 revealed that 66.9% of beneficiaries lie within the age bracket of 31 to 50 years, while 59.9% of non-beneficiaries are between 31 to 50 years old. The mean age was found to be 41.63 and 41.64 years for beneficiaries and non-beneficiaries, respectively. This implies that the respondents are in their active productive ages, these women are at an age of being physically strong and mentally alert to face challenges and make rational decisions[6]. At this age, there is greater participation in on-farm and off-farm activities, as asserted by some researcher's findings in Nigeria[7].

The majority of the respondents as shown in Table 1 were married, 84.2% of the microfinance loan beneficiaries and 73.8% of non-beneficiaries are married. This was in agreement with the researcher's findings[7] who deduced that majority of the women were people with family responsibility, who are likely to make rational decisions, also, with marriage comes the responsibility of family upkeep. They take part in important economic activities for the benefit of their families.

Household size: The result showed that beneficiaries with household sizes below 10 persons constitute more than two-thirds (78.1%) of the respondents and less than 1% have a household size of above 30 persons. The mean household size for beneficiaries is 9, while that of non-beneficiaries is 18. The large

Table 1: Distribution of respondents by socio-economic characteristics

	Beneficiaries			Non-beneficiaries		
Variable	Frequency	(%)	Mean	Frequency	(%)	Mean
Age (years)						
20-30	49	13.6		24	18.5	
31-40	117	32.5		36	27.7	
41-50	124	34.4	41.63	42	32.3	41.64
51-60	62	17.2		21	16.2	
61-70	8	2.2		7	5.4	
Marital status						
Single	8	2.2		13	10.0	
Married	303	84.2		96	73.8	
Divorced	5	1.4		9	6.9	
Widow	44	12.2		12	9.2	
Household size						
1-10	281	78.1		48	36.9	
11-20	69	19.2		37	28.5	
21-30	7	1.9	9	30	23.1	18
31-40	1	0.3		14	10.8	
41-50	2	0.6		1	0.8	
Level of education						
Qur'anic education	144	40.0		93	71.5	
Non-formal	17	4.7		7	5.4	
Primary school	56	15.6		7	5.4	
Secondary school	79	21.9		8	6.2	
Tertiary institution	64	17.8		15	11.5	
Years of experience						
1-14	185	51.4		62	47.7	
15-27	153	42.5		29	22.3	
28-40	17	4.7	15.0	14	10.8	20.9
41-53	5	1.4		25	19.2	
Monthly income (₦'000)						
15-36	70	19.4			27.7	
37-57	176	48.9			26.9	
58-78	15	4.2	58,194.44		19.2	59,176.92
79-99	67	18.6			16.9	
100-120	32	8.9			9.2	
Years of cooperative membership						
1- 5	83	52.9		23	67.7	
6- 10	28	17.8		3	8.8	
11-15	22	14.0		4	11.8	
16-20	11	7.0		3	8.8	
20- 25	13	8.3		1	2.9	

Source: Field survey, 2020

family sizes are a result of extended family systems in the study area and the practice of polygamy within communities in the study area. The high percentage of married respondents partly explains why they have large families.

Level of education: Most of the respondents coming from predominantly Muslim communities have had a Quranic education, 40% of beneficiaries and 71.5% of non-beneficiaries had a Quranic education. Some (21.9%) of the beneficiaries have had a secondary school education while only 6.2% of the non-beneficiaries had a secondary school education. Although all respondents had a type of education or another, it is worth noting that the level of formal education among both beneficiaries and non-beneficiaries is quite low. The mean years of experience for beneficiaries are 14.2 years. While non-beneficiaries are 10 years. This indicates that both beneficiaries and non-beneficiaries are women that are experienced in their various enterprises. Years of experience enable farmers to analyze production situations and give them the ability to manage risks in production.

Table 2: Socio-economic factors influencing women's access to loans

Treatment (Loan)	Coefficient	Standard error	Z	p>|z|
Constant	0.0036306	0.002733	-7.46	0.000
Age	1.059647	0.0134284	4.57	0.000***
Marital status				
Married	1.649261	0.7277987	1.13	0.257^{NS}
Divorced	0.1906549	0.13491	-2.34	0.019*
Widow	1.836234	0.9849702	1.13	0.257^{NS}
Household size	1.095837	0.0356344	2.81	0.005**
Level of education	1.765627	0.180534	5.56	0.000***
Type of agricultural business				
Livestock	0.9804636	0.4901007	-0.04	0.969^{NS}
Poultry	2.471771	1.586452	1.41	0.159^{NS}
Marketing of agricultural	1.866211	0.7954069	1.46	0.143^{NS}
Produce				
Agro-processing	2.062321	0.8357944	1.79	0.074*
Experience in agribusiness	1.085815	0.0192573	4.64	0.000***
Monthly income	1.000005	4.52-06^{e}	1.08	0.278^{NS}
Years of membership	1.106066	0.0405772	2.75	0.006**
Log likelihood	-206.7811			
Pseudo, R^2	0.2641			
Number of observations	482			

Source: Field survey, 2020, *: p<0.1, **: p<0.05, ***: p<0.01, Z and p>|z|: These are z- value and 2-tailed p-value, used in testing the null hypothesis that the coefficient parameter is 0

Almost half (48.9%) of the beneficiaries had a monthly income of between ₦37,000 and ₦58, 000 and 54.6% of non-beneficiaries earned incomes of between ₦15,000 and ₦58,800. The mean incomes of beneficiaries and non-beneficiaries are ₦58,194.44 and ₦59,176.92, respectively. Furthermore, the mean years of cooperative membership among beneficiaries and non-beneficiaries are 3.72 and 1.02 years, respectively.

Socio-economic factors influencing women's access to loans: The factors that influenced women's access to Microfinance loans. It is analyzed using the logit regression model as shown in Table 2. From the results, the likelihood ratio test for the model is -206.7811 which is significant at p<0.01 level. This indicates the joint significance of the independent variables included in the model.

Age: The coefficient of age, as shown in Table 2 was positive and statistically significant (p<0.01), indicating that older women are more likely to access microfinance loans. This is not exactly in agreement with *a priori* expectation as older farmers are relatively more risk averse. An explanation may be as a result of respondents in this study being women only and the majority of whom lie within the age range of 31 to 50 years (66.9%) and a mean age of 42 years, women in this age bracket are laden with family responsibility than younger and older women resulting in the responsibilities of fending for self and others. This was compared favorably with the study of Oludayo and Mbina[8].

Household size: Household size was found to have a positive coefficient (1.096) and significant at p<0.05. This means that larger households have greater access to microfinance loans. This is in agreement with *a priori* expectation, due to the increase in the needs of a household as the number of family members increases. In order to satisfy the increased needs, relatively larger amounts of loans will be required. This was in agreement with the findings of Hermes and Lensink[9].

Level of education: The level of education was found to be positive and significant (p<0.01). An increase in the level of education of the woman will result in an increase in her probability of accessing loans from MF institutions. This is in line with the *a priori* expectation, education is supposed to enlighten and open

Table 3: Constraints faced by women in accessing loans from MFIs

Variables	Frequency	Percent	Ranking
Loan term	309	86	1st
Inadequate amount	207	58	2nd
Interest rate	203	56	3rd
Number of installments	192	53	4th
Procedure of loan application	138	38	5th
Distance to MFI	110	31	6th
Delay in loan disbursement	42	12	7th

Source: Field survey, 2020

an individual's mind to opportunities. Educated borrowers have a better tendency for loan management and repayment, which makes them more attractive to lenders[10].

Type of enterprise: From the result, although not all enterprises were significant, agro-processing is significant at a 10% probability level ($p<0.10$) with a positive coefficient of 2.062 this implies that the increase in the probability of agro-processors accessing more loan amounts than other enterprises. A plausible explanation for this is that the return on investment for agro-processing is very high compared to those of the other enterprises, this makes them a less risky area for the institutions to invest their loans.

Years of experience: The coefficient of experience in the model is positive and statistically significant ($p<0.01$). This indicates that women that had more years of experience in managing their ventures have a better chance of access to micro-finance loans than those without such experience.

Years of cooperative membership: Long-term membership of cooperatives also had a significant ($p<0.05$) and positive influence on women's access to microfinance loans. This suggests that women's access to loans becomes better when they belong to a cooperative society, also older members are more likely to access loans. This is because long-time members of cooperatives are more trusted to be given loans. By implication, membership in cooperatives will avail women the privilege to enjoy the benefits accrued to cooperative societies[11].

Constraints faced by women in accessing loans from microfinance institutions: The result of the constraints faced by women in accessing loans was shown in Table 3. The result from Table 3 shows that 86% of the loan beneficiaries indicated short-term loan repayment as the most important constraint. The study revealed that 58% highlighted inadequate loan amount as a constraint, while 56% stated interest rate as their major problem with microfinance institutions. Only about 12% complained of late loan disbursement. This was in agreement with the findings of Aladejebi *et al.*[7], who reported inadequate credit supply and high-interest rates among major factors hindering smallholder farmers' access to credit.

Age is often correlated with financial stability and income level, older women who have established stable incomes in their enterprises are more likely to be viewed as creditworthy by lenders. Age affects a borrower's eligibility in terms of legal requirements, loan terms and loan guarantees.

The size of a household typically affects its overall income, larger households may have higher combined incomes, this may have a positive effect on loan access. Lenders are more likely to consider lending to larger households with high incomes.

Educated people have enhanced employability and income potential. Education contributes to improving women's creditworthiness, this will positively influence loan access.

Lenders may consider experience as an indicator of financial stability, as a result, women with more years of experience will be given more consideration by lenders (lenders may be more inclined towards borrowers that have higher years of experience in their various enterprises).

A cooperative association presents an avenue for a more lenient collateral requirement, membership of a cooperative society and years as a member has a significant implication for loan access.

Women should therefore form viable cooperative societies, pool their resources and build their capacity (education) so that they can derive the maximum benefit of collective investment as well as increase their chances of accessing loans from formal agricultural credit facilities.

The study considered only socioeconomic factors that influenced the women's access to microfinance loans, other factors may have an effect on their access which were not considered in this study. Also, data may have been exposed to self-reporting bias as the women may not supply accurate or complete information on their loan acquisition due to memory or social desirability bias.

CONCLUSION

In conclusion, the study revealed that all the respondents were small-scale producers, with modest years of experience. Factors that influence access to microfinance loans amongst the respondents include age, household size, level of education, years of experience and years of cooperative membership.

RECOMMENDATIONS

- It is therefore recommended that, women should form viable cooperative societies, pool their resources and build their capacity so that they can derive the maximum benefit of collective investment as well as increase their chances of accessing loans from formal agricultural credit facilities
- Policies that regulate interest rates should be effected with microfinance institutions as it has been done with commercial banks

SIGNIFICANCE STATEMENT

Access to productive resources by women in most developing countries seems to be a mirage, Nigeria is not an exception. Thus, this study focused on the factors that influence women farmers/entrepreneurs to have the ability to poses financial support to enable them to enhance their productivity. Based on the findings of this study, reveals that for women to be considered for loan support, they should attain a reasonable level of formal education, be well-experienced in their entrepreneurial activities and be a member of cooperative associations. Thus, more awareness campaigns should be embarked upon by agricultural extension agents to sensitize more women to consider such factors to enable them to have more access to loans and credit facilities to improve their enterprises.

REFERENCES

1. Ifeanyi, O., N. Anthony and I. Prisca, 2019. Poverty among women in Nigeria-psychological and economic perspective: A study based on South West, Nigeria. Int. J. Bus. Manage., 14: 90-100.
2. Wijesiri, M., 2016. Weathering the storm: Ownership structure and performance of microfinance institutions in the wake of the global financial crisis. Econ. Modell., 57: 238-247.
3. Koloma, Y., 2013. The effects of microfinance on poverty reduction in Mali: An evaluation by the method of propensity score. SSRN J., 10.2139/ssrn.2467036.
4. Laha, A. and P.K. Kuri, 2014. Measuring the impact of microfinance on women empowerment: A cross country analysis with special reference to India. Int. J. Public Administration, 37: 397-408.

5. Ayinde, O.E., T. Abdoulaye, G.A. Olaoye and A.O. Oloyede, 2018. Evaluation of Women's On-Farm Trial of Drought Tolerant Maize in Southern Guinea Savannah Agro-Ecological Zone of Nigeria. In: Building a Resilient and Sustainable Agriculture in Sub-Saharan Africa, Shimeles, A., A. Verdier-Chouchane and A. Boly (Eds.), Palgrave Macmillan, Cham, Switzerland, ISBN: 978-3-319-76222-7, pp: 81-95.
6. Ekesionye, E.N. and A.N. Okolo, 2012. Women empowerment and participation in economic activities: Indispensable tools for self-reliance and development of Nigerian society. Educ. Res. Rev., 7: 10-18.
7. Aladejebi, O.J., R.A. Omolehin, M.E. Ajiniran and A.P. Ajakpovi, 2018. Determinants of credit acquisition and utilization among household farmers in the drive towards sustainable output in Ekiti State, Nigeria. OIDA Int. J. Sustainable Dev., 11: 25-38.
8. Oludayo, K.O. and O.O. Mbina, 2019. Analysis of factors influencing access to formal loan among small-scale swamp rice farmers in Obubra Local Government Area, Cross River State, Nigeria. Int. J. Agric. Econ., 4: 307-313.
9. Hermes, N. and R. Lensink, 2011. Microfinance: Its impact, outreach and sustainability. World Dev., 39: 875-881.
10. Agbarevo, M.N. and O. Ukagha, 2018. Determinants of participation of farmers in the E-wallet agricultural input delivery system in Abia State Nigeria. J. Agric. Ext., 22: 109-116.
11. Girabi, F. and A.E.G. Mwakaje, 2013. Impact of microfinance on smallholder farm productivity in Tanzania: The case of Iramba District. Asian Econ. Financ. Rev., 3: 227-242.