

Original Research Article

Factors Influencing the Accessibility of Anchor Borrower's Programme Fund Among Rice Farmers in Ebonyi State, Nigeria

Abstract

The study examined the factors influencing the accessibility of the Anchor Borrowers Programme (ABP) Fund among Rice Farmers in Ebonyi State, Nigeria. Specifically, it describes the socio-economic characteristics of the respondents, assesses the operation of ABP, and identifies some constraints encountered by the rice farmers in accessing the ABP fund. Data collected were analysed using descriptive statistical tools such as frequency counts, percentages, mean and standard deviation. In contrast, binary logistic regression was used to determine the socio-economic factors influencing the accessibility of ABP funds among rice farmers. The findings revealed that the mean age of the rice farmers was 43.4 years with male rice farmers (58.3%) forming the majority. About 60 per cent were married, with a mean household size of approximately five persons. The majority (88.3%) had formal education, and the mean year of farm experience was 17.5 years. Some of the operations of the ABP are the supply of inputs like seedlings as submitted by 81.7 per cent of the respondents and credit source from ABP by all (100%). The majority (74.2%) sold their products personally. The result of the binary logistic regression model shows that household size, years of formal education, farming experience and membership in social organisation had a positive and significant relationship with the accessibility of ABP funds. The primary constraints encountered by the rice farmers were poor access to credit, poor quality equipment, poor service and poor administration of the program. It was recommended that Government should provide incentive measures to the rice farmers that will reduce the effect of dwindling market prices of agricultural commodities, especially Rice.

Keywords: Accessibility, Anchor Borrowers' Programme, Rice Farmers.

Introduction

In Nigeria, agriculture generates 40% of the Gross Domestic Product (GDP) and employs over 70% of the labour force (CIA, 2013). Agriculture is also the most important economic activity in rural regions, where about half the population resides. Nigeria's agriculture remains deplorable and mainly underdeveloped. Despite minimal efforts to add value, the sector continues to rely on inadequate ways to sustain a growing population. This has had a negative impact on the sector's productivity, contributions to economic growth, and ability to fulfil its traditional role of food production, among others. (Falola and Heaton, 2008).

To bring about change to this sector, numerous programmes and programs, which have changed over time, have been launched at all levels of Government in Nigeria to boost agricultural development and achieve food self-sufficiency. These included the Farm Settlement Scheme (1967), the National Accelerated Food Production Programme (1972), the Nigeria Agricultural and Cooperative Bank (now the Bank of Agriculture) (1973-Present), the Agricultural Development Programme (1975-Present), Operations Feed the Nation (1976-1979), the Green Revolution Programme (1979-83), the Directorate of Food, Roads and Rural Infrastructure (1985-1993), the National Agricultural Land Development Authority (1985-1993), and the River Basin Development Programme (1985-1993). Others included the recent Agricultural Transformation Agenda (2011), the Rural Finance Institutions Building Programme (2012-2017), the Nigeria Incentive-Based Risk Sharing Agricultural Lending (2011-Date), the Value Chain Development Programme (2015-2019), the Agricultural Transformation Support Programme - Phase 1 (2014-2019), and the Ongoing Central Bank of Nigeria's Anchor Borrowers' Programme (2015 - Date), which is the subject of this research.

The Central Bank of Nigeria (CBN) established the Anchor Borrowers' Programme (ABP) in 2015 in accordance with its developmental mission. This was done to reduce the enormous costs incurred by the Government for importing food crops and agricultural products that can be produced domestically. The Anchor Borrowers' Programme is an effort by the Federal Government of Nigeria to bridge the gap between small-scale farmers and the banking sector in the country (CBN, 2016; Ayinde et al., 2018). According to the CBN's (2015) guide to the scheme, Nigeria's agricultural commodities and food import bill has averaged over N1 trillion per year over the past two years. Rice alone achieved the highest import rate of 3.2 million metric tons in 2011 with a growth rate of 33.33 per cent, but this rate has lately declined to 2.4 million metric tons with a growth rate of 9.0 per cent (Food and Agriculture Organization, 2019; United States Department of Agriculture, 2019; Ward, Smith & Tran, 2016). The decline was the result of a restriction on imports by the Federal Government of Nigeria (FGN) and intensive efforts to maintain local production. In 2013 and 2014, food products like milk, sugar, Rice, wheat, and fish accounted for N901 billion or 93.5 per cent and N788 billion or 88.5 per cent of this total, respectively. These numbers do not include the actions of smugglers. The rice and wheat import bill was anticipated to be N428 billion in 2013 and N308 billion in 2014. These

enormous sums were spent on things that could have been produced domestically, resulting in the loss of employment and economic generating prospects.

In addition, the allocation of foreign currency to procure these commodities has steadily reduced our foreign exchange reserves, which have declined over the past few years. The current endeavour by the CBN to boost local production of the commodities is primarily motivated by the negative impact of their importation on the country's foreign reserves. Under the intervention, the Central Bank of Nigeria (CBN) has set aside N20 billion from the N220 billion Micro, Small, and Medium Enterprises Development Fund (MSMEDF) for farmers at a 9% interest rate. The program tries to achieve objectives such as job creation, food import reduction, and economic diversification. The plan aims to establish links between over 600,000 smallholder farmers (out-growers) and reputed large-scale processors (off-takers) to increase agricultural output and greatly enhance the capacity utilisation of integrated mills.

Rice, among other agricultural commodities, is specifically targeted for improved local production by the ABP. This is because Nigeria is the most significant rice producer in West Africa yet the second largest rice importer in the world, accounting for 25% of the continent's rice imports. Many States in the country have a comparative advantage in producing Rice. Currently, local production is conducted on 2,800,000,000 hectares of agricultural land (CBN, 2015). Annually, Nigeria consumes an estimated 6.1 million metric tonnes and produces 2.55 million tonnes. In addition, Nigeria's rice consumption is anticipated to rise to 35 million metric tonnes by 2050, expanding at a pace of 7% per year due to population growth projections (CBN, 2015). Considering the rate at which the country's population is growing, there is a need to expand food production proportionately; therefore, increasing rice production is one strategy to realise this goal.

In light of the critical objectives of the ABP programme, which were to (i) create an ecosystem to link out-growers to integrated millers, (ii) ramp up domestic rice production to replace imported Rice, (iii) increase the operating capacity of integrated rice millers, (iv) increase banks financing to the rice sector, (v) build capacity of smallholder farmers, and (vi) target commodities which the country has comparative advantages to produce, this study investigated the factors influencing the accessibility of ABP fund by Rice farmers in Ebonyi State. Specifically, the study described the socio-economic characteristics of rice farmers in Ebonyi State; examined the operations of ABP in the study area; identified the constraints to accessing the ABP fund by rice farmers in the study area; and determined the factors influencing the accessibility of the ABP fund by rice farmers in the study area.

Methodology

The study was conducted in Ebonyi State, located in the South-East geo-political zone of Nigeria. Ebonyi State consists of 13 local government areas: Abakaliki, Afikpo South, Afikpo North, Ezza South, Ikwo, Ishielu, Ivo, Ohazara, Ohaukwu, Ebonyi and Onicha, with Abakaliki as the largest city and state capital. The state has a landmass of 5935 km² and is inhabited the populated primarily by Igbo, who are predominantly farmers and traders. The major crops grown in the state are Rice, yam, potatoes, maize, beans, palm produce, cocoa and cassava. The study focused on the factors influencing the accessibility of the Anchor Borrowers Programme Fund among rice farmers in the study area. Data were collected using a two-stage sampling method. The first stage of the sampling involved the purposive selection of the three Local Government Areas (LGAs). (Abakaliki, Ikwo and Izzi) Mainly known for rice production and benefited from Anchor Borrowers' Programme (ABP). In the second stage, 40 beneficiaries were selected from each of the LGAs selected with the use of stratified random sampling from the list provided by the Central Bank of Nigeria (CBN) and FADAMA/ADP. A total of 120 respondents were sampled for the study. Primary data were obtained from rice producers through the use of a structured questionnaire. Data collected were described and analysed using descriptive statistical tools such as percentage, frequency count, mean and ranking, while inferential statistics such as binary logistic regression were used to analyse the data collected.

The model for the binary logistic regression is stated below

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + \beta_8 X_8 + \beta_9 X_9 + \beta_{10} X_{10} + e_i$$

Where Y= probability of access to agricultural credit: Access=1, No Access=0

β =Regression co-efficient explaining changes caused in Y by changes in the independent variables

X_1 = Age (in years)

X_2 = Sex (Male=1, Female=0)

X_3 = Marital Status (Married=1, Not married=0)

X_4 = Household Size (in Number)

X_5 = Level of Education (in years)

X_6 = Farm Size (in Hetares)

X_7 = Farming Experience

X_8 = Membership of Cooperatives (Member=1 Non-Member=0)

X_9 = Number of Extension visits (in Number)

X_{10} = Income from Paddy rice (in Naira)

e_i = Error term

The Likert-type rating was employed to identify some constraints encountered by rice farmers in their production efforts. A list of major constraints was provided, and the responses were given as 0-4, where 4=very severe, 3=severe, 2=mildly severe, not severe=1 and never problem=0.

Results and Discussion

Socio-economic characteristics of respondents

The study shows that 30.8% of the Anchor Borrowers' Programme ABP beneficiaries were between 41 and 50 years with a mean age of 43.4 years. This implies that most of the beneficiaries of ABP were in their middle age, signifying that this category of rice farmers was within the productive agricultural age. The results also revealed that 58.3% of the respondents were males while 41.6% were females, which showed that male farmers slightly dominated the cultivation of Rice in the area. The dominance of males in farming agreed with Oyedele and Yahaya (2007). It also confirms the findings of Onuk (2008) findings, which found that males constitute the majority in rice production because females are mostly involved in domestic work. Most (60%) respondents were married, while 14.2% were single. Findings further show that 22.5 per cent of respondents had less or up to three persons in their households, while 49.2 per cent had between 4 and 6 persons. About 27.5 per cent had between 7 and 9 persons, and only 0.8 per cent had ten and more persons in their households. The average household size in the study area was 4.0, with a standard deviation of ± 1.8 . This implies that the household size in the study area was reasonably small. The majority (88.3%) of the respondents could read and write because only 11.7 per cent of the respondents did not have formal education. About 39.2 per cent of rice

farmers cultivated up to 3 hectares, while 44.2 per cent cultivated between 4 and 6 hectares. Only 12.5 per cent and 4.2 per cent of respondents had between 7 and 9 hectares and ten and more, respectively.

The results in Table I further revealed that 31.7 per cent of the respondents had below ten years of farming experience, 28.3 per cent had between 11 and 20 years, and 18.3 per cent had between 21 and 30 years of farming experience. Also, 12.5 per cent of respondents had between 31 and 40 years while 9.2 per cent had more than 40 years of farming experience. The means farming experience of rice farmers was 17.5 years, and this indicates that rice farmers had more exposure to farming activities. The results in Table I also revealed the membership distribution of beneficiaries of ABP funds. About 53.3 per cent belonged to cooperative societies, while 91.7 per cent were members of farmers' associations. The results on membership of social organisations revealed that the respondents belonged to more than one social organisation, which has helped the respondents access the ABP funds. The beneficiaries of ABP sourced information and were aware of the program from the Ministry of agriculture (27.8%). Media like radio, television (20%), Extension Agent/ADP (20%), Other farmers (21.7%) and family and friends (12.5%). The various sources of information and awareness of the program might result from their membership in various social and occupational associations.

The results in Table II show the respondents' distribution according to the operations of the ABP in the study area. The results show that land ownership by the respondents as one of the Programme's prerequisites was found as follows: 41.6 per cent of respondents owned land through inheritance, 19.2 percent through lease, and 18.2 percent of respondents owned land for rice cultivation through rice cultivation rent. About 19.2% per cent purchased their land from rice cultivation, while only 2.4% of the respondents were given land free as a gift. This affirms Michler and Shively's (2015) assertion that the right to land and resources are related to improved access to institutional credit, improved agricultural investments and higher productivity and farm output and rural incomes. Most (81.7%) of the respondents received their improved rice grains for planting from Anchor Borrowers' Programme, while only 18.3 per cent bought their rice grains from cultivation outside the Programme.

The majority (69.2%) of the respondents employed hired labour on their rice farms, while 30.8 per cent used family labour to work on their rice farms. The rice farmers who engaged hired

labourers might have a vast area of land for rice cultivation. Extension agents provided extension services to complement the training given to the beneficiaries to ensure adherence to good agricultural practices and mitigate side selling being the focus of Anchor Borrowers' Programme. However, the result shows that the beneficiaries were not provided with adequate extension services, as the mean value of the Number of visits was just 2.83. This was so because rice farmers in the study area were not much visited, consequent upon lower staff disposition. The EAs did not visit about 26.7 per cent of the respondents. The finding contradicts the findings of Ekumankama, Njoku and Toluka (2007) findings that every Extension Agent (EA) needs to visit the farmers or farmers' groups with relevant messages specific to the farm practices in the field then and this enhances the job performances of the EAs. The more extension workers, the more the area covered. All the respondents (100%) who participated in the Anchored Borrowers' Programme of the Government anchored by the Central Bank of Nigeria (CBN) in the study area could get a loan through the Programme. About 62.5 per cent of the respondents made total payments of the loans given to them, while 37.5 per cent paid in parts. According to the respondent, the part payments were due to several factors, such as the seasonality of the agricultural products and unstable prices. This is in tandem with Tundui and Tundui (2013), who asserted that a myriad of factors, such as interest rates, unstable prices of agricultural commodities, social relations, and responsibilities of the borrowers, among others, could influence loan repayment performance. The results also revealed that the majority (55.8%) of the farmers paid back in cash, while 44.2 per cent employed farm produces to repay their loans.

Table III shows the mean distribution of identified constraints to adequate access to Anchor Borrowers' Programme's Fund by rice farmers. The results reveal that low educational attainment (M=4.95), Poor accessibility (M=4.32), Poor quality equipment (M=3.85), Poor service quality (M=3.80), poor administration of the Programme (M=3.67), political interference and instability (M=3.58), and Technical know-how difficulty (M=3.40) were the significant constraints. However, Gender inequality (M=2.60) was regarded as a minor constraint. This implies that despite some success stories of the Programme, it still faces many severe constraints which should be considered for the program to stand the test of time.

The low educational qualification of the farmers was a contributory factor that likely made it impossible for them to access the ABP fund. Poor accessibility to detailed information about Anchor Borrowers' Programme lowered rice farmers' knowledge about the Programme and

hence lowered their participation. Political interference and instability led the programmes/policies to be politicised and many programmes/projects/policies being abandoned with the change of Government. Poor administration of the Programme may reduce the interests of the participating rice farmers and discourage those yet to be involved in the Programme.

The result of the binary logit regression in Table iv shows that age had a negative coefficient (-0.268) and was significant at a 5 per cent probability level. This implies that the older the age of the rice farmers, the lesser the probability of rice farmers gaining access to the Programme. The Table also reveals that the coefficient of household size (0.479) and farming experience (0.218) are positively significant at a 10% probability level. This means that the higher the Number of household members and the more the experiences of rice farmers on rice farming, the more the influence in accessing the ABP funds. On the other hand, years of formal education (0.406***) and membership in social organisation (3.464***) are positively significant at 5 and 1% levels of probability, respectively, and this suggests that the higher the level of education of rice farmers the less the probability of access to ABP funds. This confirms the findings of Okunmadewa (2002) findings, who reported that education significantly impacts farmers' efficiency in production. Farm Income had a significant and positive relationship (1.031***) with rice farmers' access to agricultural ABP funds. This suggests farmers' access to ABP's fund improves as their farm income increases. There was a significant change in 2-log-likelihood, suggesting a significant cause-effect relationship between rice farmers' access to ABP funds and selected explanatory variables. The R² (0.6449) indicates that a 64.49% variation in rice farmers' access to ABP funds was accounted for by variations in the selected explanatory power on the changes in rice farmers' access to the programme funds.

Conclusion and Recommendations

The combined influence of socio-economic variables (household size, farming experience, formal education, membership of social organisation) had a positive and significant relationship with the 5 and 1 per cent probability level. However, age had a negative but significant relationship with the accessibility to ABP funds at a 5 per cent probability. The study further

revealed that low educational qualification, poor accessibility to other production resources, poor quality equipment, poor quality of service and poor administration of the Programme, among others, were the significant constraints to accessing ABP funds by rice farmers in the study area. It is recommended that the Government should improve on the Farmers/Extension ratio, which will help to facilitate extension education that farmers need on improved technologies. Government and Non-government organisations should endeavour to make all necessary production resources available for the farmers at subsidised rates to boost production. Government should provide incentive measures to the farmers that will reduce the effect of the dwindling market prices of agricultural commodities. In addition, extension workers should assist farmers in forming viable cooperative associations. Where they exist, efforts should be made to strengthen them for easy access to credit, farm inputs and markets for their agricultural products.

TABLE I: Distribution of the Respondents based on the socio-economic characteristics

Variables	Frequency	Percentage	Mean	(N=120) SD
Age				
Below 30	22	18.3		
31-40	36	30.0	43.46	10.59
41-50	37	30.8		
51-60	18	15.0		
Above 60	7	5.8		
Sex				
Male	70	58.3		
Female	50	41.6		
Marital status				
Single	17	14.2		
Married	72	60.0		
Divorced	10	8.3		
Widow/widower	21	17.5		
Household size				
≤ 4	27	22.5		
4-6	59	49.2	4.0	± 1.8
7-9	33	27.5		
10 and above	1	0.8		

Level of education				
No formal education	14	11.7		
Primary education	20	16.7		
Secondary education	48	40		
Tertiary education	38	31.7		
Farm size (in hectares)				
Below 3	47	39.2		
4-6	53	44.2	4.90	± 0.72
7-9	15	12.5		
10 and above	05	4.2		
Farmer experience(in years)				
Below 10	38	31.7		
11-20	34	28.3		
21-30	22	18.3	17.5	
31-40	15	12.5		
41 and above	11	9.2		
Membership in social organisation				
Cooperative societies		64	53.3	
Religious association		29	24.2	
Political group		10	8.3	
Farmers' Association		11.0	91.7	
Community development association		25	20.8	
Source of awareness of Anchor Borrowers' Programme Fund				
Through media like radio television		24	20.0	
Family and friends		15	12.5	
Others farmers		26	21.7	
Extension agent/ADP		24	20.0	
Ministry of Agriculture		31	27.8	

Source: Field Survey, 2022

TABLE II: Distribution of the Respondent based on the Operations of Anchor Borrowers' Programme (ABP) Fund

Operation	Frequency	percentage	Mean
Input supply			
Land by inheritance	50	41.6	
Lease	23	19.2	
Rent	22	18.3	
Purchase	23	19.2	
Gift	0.2	2.4	
Seed/seedling sources			
Purchased	22	18.3	
Supply through the Programme	98	81.7	
Forms of labour employed			
Hired labour	83	69.2	
family labour	37	30.8	
Number of ABP Extension visits/ planting season			
≤ 2	40	33.3	
3-5	33	27.5	2.83
6 and above	15	12.5	
Loan/credit sources from ABP			
Yes	120	100.0	
No	–	00.0	
Mode of loan repayment			
Part-payment	45	37.5	
Full payment	75	62.5	
Forms of payment			
Cash	67	55.8	
Farm produce	53	44.2	
Output sources of			

sales		
Personal sales	89	74.2
Through the Agency (ABP)	3.1	25.8

Source: field survey, 2022

Table III: Major Constraints to Accessing Anchor Borrowers' Programme Fund by Rice Farmers

Variables	Mean(M)	Rank
Low educational qualification	4.95*	1 st
Poor accessibility	4.32*	2 nd
Poor quality equipment	3.85*	3 rd
Poor quality of service	3.80*	4 th
Poor administration of programme	3.67*	5 th
Political interference and stability	3.58*	6 th
Technical know-how difficulty	3.40*	7 th
Gender inequality	2.60	8 th

Source: Field Survey, 2022, *Major constraint (M ≥ 2.65).

Table IV: Binary Logit REGRESSION of Factors Influencing access to ANCHOR BORROWERS PROGRAMME Fund

Variable	Coefficient	Standard error	Valid statistic	p-value
Constant	-1.926	0.173	-9.870	0.000
Age	-0.267**	0.1139	0.019	0.021
Sex	0.9111	0.8930	0.038	0.000
Marital status	1.677	0.767	0.029**	0.000

Household size	0.479*	0.283	0.090*	0.001
Year of formal				
Education	0.406**	0.1625	0.013	**0.000
Farm size	0.640	0.454	0.152	0.000
Farming experience	0.218*	0.1161	0.060*	0.001
Membership of Social Organisation	3.464***	2.487	0.001***	0.000
Number of Extension visit	0.229	0.393	0.561	0.000
Annual income	1.0307***	3.62	0.741***	0.000
Variable	Coefficient	Standard error	Valid statistic	p-value
Constant	-1.926	0.173	-9.870	0.000
Age	-0.267**	0.1139	0.019	0.021
Sex	0.9111	0.8930	0.038	0.000
Marital status	1.677	0.767	0.029**	0.000
Household size	0.479*	0.283	0.090*	0.001
Year of formal				
education	0.406**	0.1625	0.013	**0.000
Farm size	0.640	0.454	0.152	0.000
Farming experience	0.218*	0.1161	0.060*	0.001
Membership in social organisation	3.464***	2.487	0.001***	0.000
Number of				
extension visit	0.229	0.393	0.561	0.000
Annual income	1.0307***	3.62	0.741***	0.000

Log likelihood=22.460

Pseudo R2= 0.6449

Significant at 1% (***), 5% (**) and 10% (*)

References

Ayinde, O. E., Fatigun, O., Ogunbiyi, K., Ayinde, K., and Ambali, Y. O. Assessment of Central Bank Intervention on Rice Production in Kwara State, Nigeria: A Case-study of Anchor Borrower's Program. Paper presented at 30th International Conference of Agricultural economists. Vancouver, British Columbia, Canada July 28 – August 2, 2018.

Central Bank of Nigeria. Guideline of the Anchor Borrowers' Programme. Sharpemann Limited, Garki, Abuja. 2015

Central Bank of Nigeria. Anchor Borrowers' Programme Guidelines. Development Finance Department, Central Bank of Nigeria, Central Business District, Abuja. 2016

CIA. The World Fact Book. Retrieved March 3, 2013, from <https://www.cia.gov/library/publications/the-world-factbook/geos/ni.html>. 2013.

Ekumakama O.O Njoku, C.I & Tokula, M.H. An Assessment of the job performance of extension agents in Imo State Agricultural Development Programme (ADP). Nigerian Journal of Rural Sociology. 2007; 3: 10-15.

Falola, T. and Heaton, M. A History of Nigeria. New York: Cambridge University Press. Pp 183. 2008.

FAO. Nigeria at a glance. Retrieved from <http://www.fao.org/nigeria/fao-in-Nigeria/ni>. 2019

Onuk, G.E. Meeting the Rice Demands through children and Youth in agriculture. A paper presented at the 10th Annual Conference of the National Research and Development. Network of children and Youth in Agriculture Programme (CVLAP). 2008

Oyedele, O.O. and Yahaya, M.K. Technical Information. Needs in Improves cities production techniques extension. 2007; 10: 168-175

Tundui, C and Tundui, H. Microcredit, micro enterprising and repayment myth: the case of Micro and Small woman business entrepreneurs in Tanzania. American Journal of Business and Management. (2013); 2(1): 20-30.

United State Department of Agriculture. Nigeria milled rice imports by year. Retrieved from:<https://www.indexmundi.com/agriculture/?country=ng&commodity=milledrice&graph=imports>. 2019

Ward, M., Smith, G., & Tran, Q. This Report Contains Assessments of Commodity and Trade Issues Made by Usda Staff and Not Necessarily Statements of Official US Government Policy. USDA Foreign Agricultural Service: Washington, DC. 2016