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ANALYSIS OF EFFECTS OF ANCHOR BORROWERS' PROGRAMME ON THE LIVELIHOOD OF RICE FARMERS IN NIGER STATE, NIGERIA

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Abstract
This study analysed effects of Anchor Borrowers' Programme (ABP) on the Livelihood of Rice Farmers in Niger State, Nigeria. A multi-stage sampling was used for the study. Two Local Government Areas (LGAs) were purposively selected due to high rice production and participation in ABP and four communities were selected from each LGA. Forty nine percent of the sample frame was randomly selected to form the sample size of 202 rice farmers. Data were collected through the use of questionnaire. Descriptive statistics and multiple regression were used to analyze the data. The results revealed that the mean age of beneficiary rice farmers was 39 years with majority (74%) of them being males and an average household size of 10 people. The results from multiple regression revealed that ABP had significant effect on the yield, income and the standard of living of the rice farmers. Access to improved seeds (0.0971; 0.09715**; 0.21148***), agro-chemicals (0.0915*; 0.09152*; 0.16598*) and liquid cash (0.2391***; 0.23912***) under the ABP enabled beneficiaries to increase rice production, improve farm income, and reduce poverty levels. In view of these findings, it can be concluded that ABP had a positive significant effect on the livelihood of beneficiary rice farmers in the study area. Therefore it was recommended that the CBN and implementing agencies should ensure that farm inputs under ABP are distributed to farmers in Niger State before the planting season; also, support such as low-interest loans should be provided by Government through Bank of Agriculture.*
Keywords: Analysis, effects, Anchor Borrowers' Programme, livelihood, rice farmers

1.0 Introduction

Agriculture remains the backbone of Nigeria's economy, employing over 70% of the rural population and contributing significantly to food security and poverty reduction. Among the staple crops, rice is of strategic importance due to its high consumption rate and its role in household food security. Despite being one of the largest rice producers in Africa, Nigeria still imports a substantial quantity of rice to meet domestic demand, leading to huge foreign exchange outflows.

To bridge the supply gap, reduce import dependence, and improve smallholder farmers' productivity, the Central Bank of Nigeria (CBN) launched the Anchor Borrowers' Programme (ABP) in November 2015. The ABP is an agricultural intervention designed to provide farm inputs such as seeds, fertilizers, and agrochemicals to smallholder farmers in clusters through anchor companies, with a buy-back arrangement at harvest. The programme targets rice and other priority crops with the goal of increasing productivity, ensuring food security, creating jobs, and improving farmers' livelihoods (Belewu, 2023).

Niger State is one of the leading rice-producing states in Nigeria and a major beneficiary of the ABP. The state has large areas of fadama land and favorable agro-ecological conditions for rice

cultivation. Reports indicate that at least 14,000 rice farmers in Niger State had benefited from the CBN ABP with about ₦2 billion disbursed under the Micro, Small and Medium Enterprise Development Fund (Daily Times Nigeria, 2016). In 2025, the Niger State Ministry of Agriculture further concluded arrangements for a pilot phase of ABP, mobilizing 1,400 farmers to access inputs for rice, maize, soybeans, and cotton production to enhance food security and agricultural productivity in the state (Standard Times NG, 2025).

Livelihood in this study refers to the income, assets, food security, and general welfare of rice farmers. Empirical studies show that ABP beneficiaries in Nigeria, including Niger and Kwara States, recorded lower poverty incidence, depth, and severity compared to non-beneficiaries. The programme has also improved access to credit, farm inputs, and output among participating farmers (Belewu, 2023). However, challenges such as delayed input distribution, loan repayment problems, flooding, and market price fluctuations continue to limit the extent to which ABP translates to sustainable livelihood improvements for rice farmers (Belewu, 2023).

Despite the introduction of the Anchor Borrowers' Programme (ABP) by the Central Bank of Nigeria to boost agricultural productivity and improve farmers' livelihoods, rice farmers in Niger State continue to face challenges that affect their income, food security, and overall welfare. However, empirical evidence shows mixed outcomes. While studies in Niger and Kwara States indicate that ABP beneficiaries recorded lower poverty incidence, depth, and severity compared to non-beneficiaries, other studies highlight persistent constraints that undermine the programme's impact (Belewu, 2023). Furthermore, there is limited state-specific evidence on how the ABP has directly influenced key livelihood indicators such as farm income, asset ownership, food security, and poverty reduction among rice farmers in Niger State. Most available studies are either national in scope or focus on other states, leaving a gap in understanding the specific effect of ABP in the context of Niger State's agro-ecological and socio-economic conditions.

Therefore, it is necessary to conduct an analysis of the effect of ABP on the livelihood of rice farmers in Niger State, Nigeria in order to determine the extent to which the programme has improved farmers' livelihoods, and provide recommendations for policy and programme improvement.

2.0 Objectives of the Study

The broad objective of this study was to analyse effects of ABP on the livelihood of rice farmers in Niger State, The specific objectives were to:

1) identify the Socio-economic characteristics of rice farmers in Niger State and
2) determine effects of Anchor Borrowers' Programme (ABP) on the livelihood of rice farmers in Niger State

3.0 Methodology

This study was conducted in Niger State, Nigeria, located in the Western part of Nigeria. A multi-stage sampling procedure was used for the study. It involved the purposive selection of two LGAs because of their active involvement in Anchor Borrowers' Programme activities. Four communities were randomly selected from each LGA, making a total of eight communities. Finally, a random selection of 202 rice farmers (forty nine percent of the sample frame) were used to form the sample size. Data for this study were obtained from primary source by the use of questionnaire which was complemented with interview schedule, and were analysed using descriptive statistics (frequencies, percentages and mean) and multiple regression analysis.

4.0 Results and Discussion

4.1 Socio-economic Characteristics of Rice Farmers

Table 1 revealed that the rice farmers had a mean age of 39 years, implying that they were young and within their productive age bracket. Farmers in this age bracket are more likely to adopt

improved technologies and have the energy required for intensive rice production (Belewu, 2023). A majority (74%) of respondents were males, and majority (66%) of the respondents had at least one form of formal education or the other. The result further showed that respondents had a mean farm size of 2 hectares.

Table 1: Distribution of rice farmers according to socio-economic characteristics (n=202)

Variables	Frequency	Percentage	Mean
Age (years)			
20-29	31	15	
30-39	65	32	
40-49	79	39	39
50-59	24	12	
60-69	3	2	
Sub-total	**202**	**100**	
Sex			
Female	53	26	
Male	149	74	
Sub-total	**202**	**100**	
Educational level			
Adult education	37	18	
Non formal education	32	16	
Primary education	44	22	
Secondary education	43	21	
Tertiary education	46	23	
Sub-total	**202**	**100**	
Farm size (ha)			
1.00-3.99	178	88	
4.00-6.99	18	9	
7.00-9.99	4	2	2
10.00 and above	2	1	
Sub-total	**202**	**100**	

4.2 Institutional Characteristics of Beneficiary Rice Farmers

Table 2 reveals that majority (81%) of the respondents belonged to cooperative societies, with a mean of 9 years as members of association. This implies that most of the rice farmers were organized under groups which is a major requirement for participation in the Anchor Borrowers' Programme. Furthermore, a majority (82%) of the respondents had received extension visit. This suggests that farmers had access to technical information that could influence the adoption of improved rice production practices in the study area. In addition, most (64%) of the respondents had access to credit. Access to credit is expected to have a positive effect on productivity, input purchase, and loan repayment capacity under the programme.

Table 2: Institutional characteristics distribution of beneficiary rice farmers

Variables	Frequency	Percentage	Mean
Membership of association			
No	38	19	
Yes	164	81	
Sub-total	**202**	**100**	
Years of membership (years)			
1-7	88	54	
8-14	51	31	9

15 and above	25	15
Sub-total	**164**	**100**
Extension visits		
No	36	18
Yes	166	82
Sub-total	**202**	**100**
Access to credit		
No	72	36
Yes	130	64
Sub-total	**202**	**100**

4.3 Effects of the Anchor Borrower Programme on the livelihood of the rice farmers

Multiple regression analysis was employed to determine the effects of Anchor Borrowers Programme on the livelihood of rice farmers in the study area. Livelihood indicators such as yield, income and level of living were analyzed.

4.3.1 Effects of the Anchor Borrower Programme on the yield of the rice farmers

The findings in Table 3 showed that the p-value (0.010) is less than 0.05 suggesting that the model is statistically significant and the R-squared (0.627) indicates that 62.7% of the variance in the yield of rice farmers is explained by the independent variables.

The finding according to farmers' distribution in Table 3 revealed that improved seeds with a coefficient of 0.0971 were significant at 10% level of probability. This implies that the more the use of improved seeds, the more likely farmers increase in yield. Agro-chemicals also had a positive coefficient of 0.0915 and was significant at 10% level of probability. This implies that a unit increase in the use of agro-chemicals led to an increase in yield. This finding concluded that rice farmers who had access to agro-chemicals had increase in their output because they were not constrained in the use of such chemicals. Access to liquid cash was significant at 1% level of probability with a positive coefficient of 0.2391. Meaning that increase in access to liquid cash led to increase in yield of rice farmers. This could be because its access is crucial for acquiring other farm inputs and production activities. The implication of this is that access of liquid cash through ABP is an appropriate way of providing capital for rural farmers to improve their farming activities. These findings therefore implies that ABP input packages significantly improved the yield of rice farmers in the study area. This result is in line with the finding of Olanrewaju *et al*. (2020) who indicated that participation in ABP led to an increase in yield of rice production in Northern Nigeria.

Table 3: Effects of the ABP on the yield of rice farmers

Variables	Coefficient	Standard error	T-value
Constant	0.1560	0.0688	2.266
Improved seeds (kg)	0.0971*	0.0577	1.684
Agro-chemicals (L)	0.0915*	0.0482	1.897
Fertilizers (kg)	0.0407	0.0942	0.432
Machinery(₦)	-0.0629	0.0702	-0.896
Liquid cash (₦)	0.2391***	0.0731	3.273
F-value	2.79***		
Prob > F	0.010		
Adjusted R-squared	0.627		

*Note: *** and * represent significant at 1% and 10% levels of probability.*

4.3.2 Effects of the Anchor Borrower Programme on the income of the rice farmers

The result in Table 4 showed that the coefficient of determination (R-squared) value of 0.61 indicated that 61% of the independent variables contributed to the total income obtained by the ABP beneficiary rice farmers in the study area. The findings indicated that improved seeds had a positive coefficient of 0.09715 which was significant at 5% level of probability. This implies that the more the farmers use improved seeds, the more income they are likely to get if the farmers use it with good agronomic practices. It was also revealed that access to agro-chemicals had a positive coefficient of 0.09152 which was significant at 10% level of probability. This implies that an increase in the use of agro-chemicals led to increased income by 0.09152 units. This finding therefore concludes that farmers who had access to agro-chemicals had increase in income in the study area.

The result indicated that liquid cash had a positive coefficient (0.23912) which was significant at 1% level of probability. This implies that an increase in the access to liquid cash led to increase in the income of rice farmers by 0.23912. Meaning that farmers who had access to liquid cash have increased income because they were privileged to use the cash for production costs that enhanced their productivity and income.

The findings indicated that access to ABP input packages had effect on the income of rice farmers in the study area. This result confirms the findings of Agboola *et al*. (2021) who reported that ABP has enhanced the capacity of beneficiaries to realize significant increase in their income.

Table 4: Effects of the ABP on the income of rice farmers

Variable	Coefficient	Standard error	T-value
Constant	0.15600	0.06884	2.266
Improved seeds (kg)	0.09715**	0.04768	2.038
Agro-chemicals (L)	0.09152*	0.05024	1.822
Fertilizers (kg)	0.04068	0.09416	0.432
Machinery(₦)	0.08285	0.07018	1.181
Liquid cash (₦)	0.23912***	0.07307	3.273
F-value	2.09**		
Prob > F	0.019		
R-squared	0.61		
Adjusted R-squared	0.57		

*Note: ***, ** and * represent significant at 1%, 5% and 10% levels of probability*

4.3.3 Effects of Anchor Borrower Programme on the level of living of rice farmers

The results in Table 5 revealed that the R-squared value (0.557) shows that approximately 55.7% of the independent variables contributed to rice farmers' level of living in the study area. ABP input packages such as improved seeds; agro-chemicals and machinery significantly affect the level of living of the rice farmers.

The findings revealed that improved seeds had a positive coefficient of 0.21148 and was significant at 1% level of probability. This implies that a unit increase in the use of improved seeds led to an increase in the level of living of rice farmers in the study area. The study therefore, concluded that the use of improved seeds accessed through ABP improved farmers' level of living since the availability of improved seeds is one of the pre-conditions for improved livelihood. Access to agro-chemicals had a positive coefficient of 0.16598 which was significant at 10% level of probability. This implies that an increase in the use of agro-chemicals led to an increase in the level of living of rice farmers in the study area. This finding concluded that farmers who had access to agro-chemicals had increased level of living because access to such chemicals increased their yield and income when compared to before the intervention of ABP. The research also revealed that

access to machinery had a positive coefficient of 0.14806 which was statistically significant at the 5% level of probability. Meaning that, access to machineries had a significant effect on the level of living of rice farmers. Use of machineries can make production easier, timely, and motivate many of the farmers to go into dry season farming therefore, increasing their level of living.

This finding is in line with that of Chibueze and David (2021) who reported that ABP brought improvement in the livelihood of farmers' cooperatives in Anambra State in the areas of boosting output, improving profitability among farmers' cooperatives and ease of financing agriculture.

Table 5: Effects of the ABP on the level of living standards of rice farmers

Variable	Coefficient	Standard error	T-value
Constant	0.15330	0.06924	2.214
Improved seeds (kg)	0.21148***	0.07813	2.707
Agro-chemicals (L)	0.16598*	0.08875	1.870
Fertilizers (kg)	0.0787	0.0947	0.831
Machineries(₦)	0.14806**	0.07058	2.098
Liquid cash (₦)	0.00245	0.07349	0.033
F-value	2.31**		
Prob > F	0.0152		
R-squared	0.557		
Adjusted R-squared	0.517		

*Note: ***, ** and * represent significant at 1%, 5% and 10% levels of probability*

5.0 Conclusion and Recommendations

5.1 Conclusion

This study concludes that ABP is an intervention programme which shows a positive and statistically significant effect on the livelihood of rice farmers in the study area. Access to improved seeds (0.0971*; 0.09715**; 0.21148***), agro-chemicals (0.0915*; 0.09152*;0.16598*) and liquid cash (0.2391***; 0.23912***) under the ABP enabled beneficiaries to increase rice production, improve farm income, and reduce poverty levels compared to when they were not beneficiaries. The ABP has proven to be an effective intervention for enhancing agricultural productivity and rural livelihoods, and it remains relevant to Nigeria's goal of achieving self-sufficiency in rice production.

5.2 Recommendations

Based on the findings of the study, it was recommended that (i) the CBN and implementing agencies should ensure that farm inputs under ABP are distributed to farmers in Niger State before the planting season to maximize yield and prevent production losses; (ii) Government and stakeholders should increase funding for the ABP and extend it to more smallholder rice farmers in rural areas of Niger State. (iii) Additional support such as low-interest loans and insurance schemes should be provided by Government through Bank of Agriculture and Insurance companies. (iv) Government should consider adequate provision of farm machinery through the programme for improving the farmers' productive capacity. (v) Also, regular monitoring and evaluation of ABP activities should be carried out to track impact, identify challenges early, and ensure transparency and accountability in programme implementation.

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