The Role of Smallholder Maize Farmers' Attitude on the Sustainability of the Anchor Borrowers Programme in Nigeria

El Yakub, M. A., Gorondutse, A. H. & Saidu, M. M.[1]
maelyakub@gmail.com
ahgdutse@gmail.com
saidumahmoudmuktar@gmail.com

[1]Department of Business Administration, Maryam Abacha American University of Niger, Maradi, Niger Republic.
[2]Department of Management Sciences, Nigeria Police Academy, Wudil, Kano.
[3]Department of Business Administration, Maryam Abacha American University of Nigeria, Kano.

Abstarct
In their desire to diversify the national economy, various governments in Nigeria have cumulatively invested trillions of Naira over the past six decades in grants and loans to support Micro, Small and Medium Enterprises (MSMEs) in the country. In particular, the Central Bank of Nigeria (CBN) has been involved in many such interventions. Among those interventions is the Anchor Borrowers Programme (ABP), in which the CBN loaned out over N1 trillion to smallholder farmers and anchors between 2015 and 2024. The success and sustainability of such commendable programmes are, however, intricately linked to the repayment made by the beneficiaries under the schemes. The aim of this study, therefore, is to examine the role of smallholder maize farmers' attitude in Nigeria on the sustainability of the ABP. The conceptual framework of the study was developed on the principles of the Theory of Planned Behaviour. The independent variable of the study is Attitude (ATT), while the dependent variable is the loan repayment intention, proxied as Sustainability of the Programme (SUS). 488 smallholder maize farmers that benefitted from the ABP in the forty-four local government areas of Kano State were selected through random sampling. A structured questionnaire was administered to the sample for primary data. Simultaneous multiple regression analysis using SPSS Version 22 was carried out on the collected data. With an R-squared of 0.415, the model was significant at F=68.268 and sig=0.01. The results showed that the relationship between ATT and SUS was not significant. Consequently, the sustainability of the Anchor Borrowers Programme was not influenced by borrower attitude. Therefore, policymakers and managers should focus on other behaviour factors to enhance loan repayment and sustainability of their credit programmes.
Keywords: Anchors, Anchor Borrowers' Programme, Sustainability, Attitude, Subjective Norms, Perceived Behavioural Control.

Introduction

The Central Bank of Nigeria (CBN) in its Update (March, 2021), reported that for years, economic diversification had been proposed as the solution to the economic woes plaguing the country. Unfortunately, efforts made so far to put the country on the path of prosperity through

diversification have not witnessed much success. Past government interventions include the Operation Feed the Nation (OFN), aimed at supporting Micro, Small and Medium Enterprises (MSMEs) and jump-starting smallholder farming between 1976 and 1980; the Creation of a People's Bank of Nigeria, aimed at small, informal business operators, etc. Specifically, over the past few years, the CBN has rolled out several programs totalling about N2 trillion in loans and grants to MSMEs. Some of the programmes include the N28 billion ($193.1 million in 2009 dollars), Small and Medium Enterprises Equity Investment Scheme (SMEEIS) between 1999 and 2009; the Agricultural Credit Guarantee Scheme Fund, or ACGSF, to help large- and small-scale commercial farmers jump-start their businesses, etc. (Page & Okeke, 2022). But the Anchor Borrowers Programme (ABP) is one of the most ambitious MSME interventionist programmes conceptualised, developed and implemented by the CBN.

The ABP was launched by the Nigerian government in November 2015 after extensive consultations with stakeholders. The specific objectives of the ABP include increasing banks' financing to improve agricultural productivity by creating an ecosystem that drives value chain financing; reducing the nation's food import bill through import substitution and enhanced domestic value addition; creating a new generation of farmers through innovative financing to support smart agriculture; and deepening financial inclusion and grow Smallholder Farmers (SHFs) from subsistence to commercial farming. According to the CBN ABP Revised Guidelines (September 2021), the targeted beneficiaries are the SHFs and medium to large-scale farmers engaged in the production of agricultural commodities across the country.

Regardless of the positive principles beneath the conceptualisation of the ABP, the sustainability of the programme will be threatened if full repayment in line with the terms of the loan agreements is not made. For instance, a business report by Udi (2024) suggested that about N1.12 trillion was disbursed to 563 anchors with about N670.4 billion repaid and an outstanding payment of N450.90 billion. Unfortunately, there are not many studies on loan repayment under the ABP. Furthermore, most of such studies tend to focus on socio-economic factors of loan repayment. These include Abdullahi et al. (2023), who determined the factors influencing loan repayment performance among the dry season smallholder rice farmers in Wammako, Bodinga and Kware Local Government Areas (LGAs) of Sokoto State, the results of which showed that 52% made no repayment.

On the basis of the foregoing, the broad objective of the study is to examine the role of the loan repayment behaviour of smallholder maize farmers in Nigeria on the sustainability of the ABP. Specifically, the research sought to investigate the attitude of smallholder maize farmers towards the sustainability of the Anchor Borrowers Programme, ABP. Consequently, this should help answer how the attitude of smallholder maize farmers towards ABP loan repayment affects the sustainability of the programme. Accordingly, the study hypothesis is as follows:

H1   There is a significant and direct relationship between the attitude of the smallholder maize farmers and the sustainability of the ABP.

Literature Review

A preponderant number of loan repayment studies focus on borrower features, such as age, gender and income status, etc.; creditor characteristics, such as terms of loan extended, proximity to borrowers, interest rates, etc. For instance, Muhammad et. al. (2019) studied the impact of loan characteristics determined by loan size and loan tenure on loan repayment; Also, Dubale and

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Beshir (2020) studied loan repayment variables, such as education level, land holding size, total livestock holding, non-farm income, expenditure on social festivals, number of years of experience in agricultural extension services, saving habit and source of credits, etc.

There is, however, a behavioural perspective of studying loan behaviour which is possible by, among other options, applying the theory of planned behaviour (TPB) (Ajzen, 1991). The TPB is a theory of human behaviour that seeks to predict the intention to perform a given behaviour by taking into consideration the influence of personal evaluations, perceived social pressure and perceived control (Young, et al., 1991). TPB is an extension of the Theory of Reasoned Action (TRA) made necessary by the limitations of the TRA model in dealing with behaviours over which individuals have incomplete volitional control (Ajzen, 1991). The TPB is designed to predict and explain human behaviour in specific contexts. The Theory of Planned Behaviour (TPB) adds a *perceived behavioural control* over the behaviour, which allows taking into consideration situations where an individual may not have complete volitional control over a behaviour. The constructs of TPB are attitude toward a behaviour, subjective norm, perceived behavioural control, intention and behaviour. But the effects of attitude toward behaviour and subjective norm on intention are moderated by a perception of behavioural control, even as, generally speaking, the more favourable the attitude and subjective norm and the greater the perceived control, the stronger should be the person's intention to perform the behaviour under study. The TPB is explained in Figure 2.1 below.

Figure 2.1: TPB constructs and their background factors
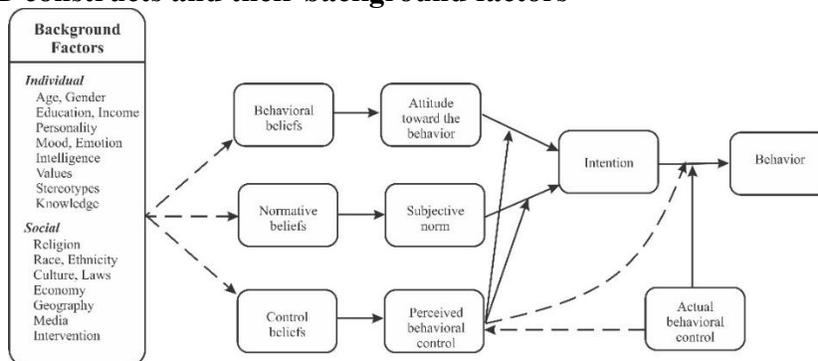
Source: Icek Ajzen (2019)

The theory of planned behaviour is now gaining usage in some fields of loan repayment. For instance, Singravelloo (2020) carried out a study in late 2018 on the graduates of University of Malaya (UM) to identify factors that influence their loan repayment. The study was conducted using a quantitative approach, engaging fresh graduates who participated through face-to-face administration of a questionnaire and an online survey targeting the identified group during the convocation week. The findings revealed that the level of loan repayment intention among graduates stood at an average of 60.4% of the respondents who had started paying the educational loan, while the remaining had not commenced for various reasons. Srivastava and Dhamija's (2021) study covered various theories thoroughly analysed to understand the factors which influence the intention of students to repay the education loan in India. This structural framework of the study encompassed Attitude to repay or default on the education loan, Integrity, Parental influence, awareness of loan agreement, Willingness to invest in educational plans, Student's

characteristics, Financial ability to pay and student priority from the Theory of Reasoned Action, the Theory of Planned behaviour, the Theory of Human Capital and the Theory of Ability to Pay.

Long before TRA and TPB, the study of attitude has been of interest to scientists. Titchener (1910), as cited in Ortmeyer (1949), regarded the nature of attitudes as "Behind everything lies a cortical set, a nervous bias, perhaps inherited and permanent, perhaps acquired and temporary. This background may not appear in consciousness at all; or it may appear as a vague, conscious attitude (passive imagination), or again as a more or less definite plan, aim, ambition, intention (active imagination)." Conscious attitude was considered as composed of the elementary processes: sensations, images and feelings. Koffka (1935), cited in Ortmeyer (1949), considered attitudes as forces directed toward an object and that their origin is in the ego of the individual.

The attitude of an individual is their evaluation of an idea, object or another person. This means an individual has attitude towards many things, such as products, business, credit, people around the world and political policies. Attitudes are typically 'favourable' or 'unfavourable', 'positive' or 'negative'. Furthermore, attitudes have three components. These are an *affective component* (feelings), a *behavioural component* (the effect of the attitude on behaviour) and a *cognitive component* (belief and knowledge) (Rosenberg et al., 1960). We form beliefs about an object by associating it with certain attributes. In the case of attitudes toward a behaviour, each belief links the behaviour to a certain outcome, such as the cost incurred by performing the behaviour. Since the attributes that come to be linked to behaviour are valued positively or negatively, we automatically acquire an attitude toward the behaviour. In this way, we learn to favour behaviours we believe have largely desirable benefits and, on the other hand, form unfavourable attitudes towards behaviours we associate with largely undesirable consequences. Hence, the outcome's subjective value contributes to the attitudes in direct proportion to the strength of the belief. That is, the subjective probability that the behaviour will produce the outcome in question. The expectancy-value model is represented in equation 2.1 below where a person's attitude, *ATT*, is expected to be directly proportional to a composite belief index with the strength of each accessible belief, *b*, multiplied by the subjective evaluation, *e*, of the outcome and the resulting products summed up (Ajzen, 2020). This can be mathematically expressed as:

$$ATT \; \alpha \; \sum \; (b_i e_i) \qquad\qquad 2.1$$

On the basis of the foregoing, the conceptual framework of this study was developed to comprise one independent variables and one dependent variable. The independent variable, Attitude (ATT), and the dependent variable, behavioural intention proxied as Sustainability (SUS) of the ABP, are adopted from the Theory of Planned Behaviour. The conceptual framework is as shown in Figure 2.2 below:

Figure 2.2: Conceptual framework of the study
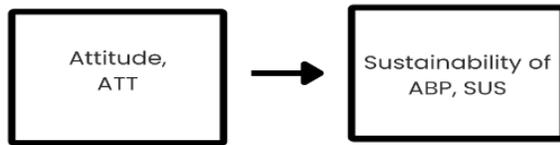
Source: Adapted from Ajzen (2019)

Methodology

The ancient city of Kano, which serves as the state capital, has been a major commercial hub for over nine centuries. Beyond commerce and industry, Kano State is one of Nigeria's most important agricultural regions. Furthermore, agriculture is the largest sector in Kano State in terms of the provision of employment and income to the population. It is estimated that over 70% of the working population is directly or indirectly engaged in agricultural activities. The state produces guinea corn, maize, rice,onion, garlic, etc. and also has a sizeable collection of livestock, such as sheep, goats, cattle, etc. (Dandago & Igwe, 2012; Mustapha et al., 2014).

Research Design

The study used quantitative methods developed for data collection, analysis and interpretation. This makes it possible to enhance accuracy and objectivity; the capacity to extrapolate results to larger populations; researchers can assess correlations between variables and test theoretical claims by using quantitative methods to enable rigorous statistical analysis and hypothesis testing (Zyoud et al., 2024). In addition, quantitative research methods are also the generally adopted models in TPB research (Ajzen, 2004 and Knabe, 2012) and multiple linear regression analysis was specifically adopted for this study.

Population of the Study

The maize farmers are the third largest beneficiaries under the ABP with 477,638 members under their national umbrella, the Maize Association of Nigeria (MAAN). Similarly, with N58.2 billion, it is the third largest beneficiary of the ABP in Northern Nigeria after Kaduna State with N139.9 billion and Niger State with N61.8 billion (Isenyo et. al., 2023). For the purpose of this study, the population is the smallholder maize farmers in Kano State that benefited from the Anchor Borrowers Programme.

3.4 Sample Size and Sampling Technique: Of the 8,175 smallholder maize farmers of interest in Kano, we computed the required sample to be 368. This is in accordance with Krejcie and Morgan formula (1970) at 95% confidence level. However, to minimise risks of low responses, reduce sampling error and improve statistical significance, the researcher targeted 479 respondents, allowing for a 30% increment over the calculated base of 368 (Adeniji et al., 2018; Raimi et al., 2013; Salisu et al., 2020).

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Method of Data Collection

Data was collected primarily through the administration of a structured questionnaire. A pilot studies was conducted for the purposes of feasibility assessment, adequacy of instrumentation, problems of data collection strategies and proposed methods, answering methodological questions, planning a larger study, as well as the potential of obtaining sufficient preliminary data (Hertzog, 2008, citing Prescott and Soeken (1989) and Jairath et al. (2000). The sampling method for data collection involved first, a stratification made based on the local government areas in Kano State. Second, the total number of samples required was allocated on the basis of the number of smallholder maize farmers from each local government area that benefitted from the ABP. Finally, the random selection of borrowers from each local government area on the basis of availability and cooperation. This sampling method has been used by Belewu (2023).

The questionnaire was developed by adapting from earlier researchers (Mahmood et al., 2019 and She et al., 2024), as shown in Table 3.1, below. The questionnaire has two sections. In Section One, six demographic questions were asked about their gender, age group, highest level of education, marital status, religion and sources of income. The second section had two parts: Attitude towards behavior (six questions) and Sustainability (six questions). All the questions were scored on a five-point Likert scale. This is shown in Appendix I on page 19.

Table 3.1: Summary of measurements and their sources

S. No.	Variable	Proxy	Status	Dimension	No. of items	Sources of items
1	Attitude	Attitude	Independent	1	6	Mahmood, T. M. A. T., Al Mamun, A., Ahmad, G. B., & Ibrahim, M. D. (2019).
2	Behaviour	Loan repayment behaviour	Dependent	1	6	She, L., Rasiah, R., Weissmann, M. A., & Kaur, H. (2024).

Source: Adapted from Mahmood et al. (2019) and She et al. (2024)

Results

Multiple regression analysis was conducted to allow for the assessment of both the strength and direction of relationships, which is central to the testing of hypotheses derived from the underpinning theories. Four hundred and eighty-eight (488) questionnaires were provided to the respondents in line with the set targets of 368 and a 30% margin of safety, as discussed earlier. All questionnaires were completed and collected. The 100% response rate achieved is essentially due to the very effective mobilisation by the research assistants for each location in the state visited and the presence of the research assistants who were available to support the respondents.

Reliability Test

The Cronbach's alpha coefficient test was carried out in this study to measure the internal consistency reliability. Table 4.1 presents the summary of the reliability test result. Since in general, a Cronbach alpha of 0.7 has been accepted as the minimum benchmark for examining reliability, the results of the reliability test show that all Cronbach alphas for the variables under study reached an acceptable reliability coefficient. Specifically, ATT (α = .952) showed excellent reliability while SUS (α = .765) was acceptable. This indicates that the items used in measuring each construct consistently captured their intended underlying dimensions.

Table 4.1: Reliability Test Results

Variable	Number of Items	Cronbach Alpha
ATT	6	.952
SUS	6	.765

Source: Field Survey (2025), Generated from SPSS, 22 Version

Profile of Respondents: The respondents were asked to anonymously provide their demographic details, such as their Gender, Age, Education, Marital Status, Religion and Sources of Income. The socio-economic description of respondents reveals that they were mostly men at 453 and 92.8%, while 35 women made up 7.2%. Similarly, the results show them dominated by 212 persons aged between 36 and 45 (43.4%) followed by 138 persons aged between 26 and 35 (28.3%) and 81 persons aged between 46 and 55 (16.6%). The bottom two age groups are those above 55 years (44 persons at 9%) and those aged between 18 and 25 (12 persons at 2.5%).

In terms of the highest educational qualification they hold, results show secondary school certificate holders as the largest (175 persons or 35.9%) of all the respondents. They are closely followed by Diploma/National Certificate of Education holders (166 persons or 34%). Those holding a primary school certificate are 93 or 19.1% of the total. The bottom two are those holding first degree (45 persons at 9.2%) and those holding postgraduate degrees (9 persons at 1.8%) of the total.

Their marital status shows that the majority are married (454 or 93%) and 34 or 7% are divorced. Muslims were 473 in number (96.9%) and Christians 15 (3.1%). As regards their sources of income, 410 (84%) have other income sources in addition to farming, while 68 persons (13.9%) farm only.

4.4 Model Summary: The results shown in Table 4.2 demonstrated that the regression equation with predictors that were significant, as R = .644, R^2 = .415, R^2 adj = .409, $F_{(5, 482)}$ = 68.268, P<.001.

Table 4.2: Model Summary[b]

Model	R	R Square	Adjusted R Square	St. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change	D-W
1	.644[a]	.415	.409	.17833	.415	68.268	5	482	.000	1.732

a. Predictors: (Constant), FKN, SUB, PPC, ATT, PBC

  b. Dependent variable: SUS

Source: Generated from SPSS, Version 22

Table 4.3: Analysis of Variance[b]

Model	Sum of Squares	df	Mean Squares	F	Sig.
	ANOVA[a]				
Regression	10.855	5	2.171	68.268	.000[b]
Residual	15.328	482	.032		
Total	26.183	487			

  a. Dependent variable: SUS
  b. Predictors: (Constant), FKN, SUB, PPC, ATT, PBC

Source: Generated from SPSS, Version 22

Table 4.4 below shows the individual contribution of each predictor in the regression equation.

Table 4.4: Regression Analysis

Model	Unstandardised Coefficients		Standardised Coefficients	t	Sig	Collinearity Statistics	
	B	Std. Error	Beta, β			Tolerance	VIF
1 (Constant)	1.700	.135		12.631	.000		
ATT	.030	.019	.058	1.578	.115	.902	1.108
SUB	.124	.016	.313	7.969	.000	.785	1.274
PBC	.136	.022	.234	6.062	.000	.818	1.222
PPC	-.069	.028	.095	-2.449	.015	.811	1.234
FKN	.288	.033	.356	8.737	.000	.732	1.366

Source: Generated from SPSS, 21 Version

As shown, the multiple correlation coefficient between the predictor and the dependent variable was .644 evidenced by R; the predictors accounted for 41.5% of the variance in the Sustainability, as evidenced by R^2. The generalizability of this model in another population was .409, as evidenced by Adj R^2. That the value of R^2 dropped by only .006 in the adjusted R^2 indicates that the cross-validation of this model is robust. Furthermore, the significant F-test (5, 482) = 68.268, P<.001 indicates an overall significant prediction in the independent variables to the dependent variable, but lacks information about the importance of each independent variable.

While some theory of planned behaviour studies show R^2 in excess of 50%, the 41.5% achieved here is a good predictability achievement in the context. For instance, a study on Covid-19 help-seeking behaviour in Jordan by Aldalaykeh et al. (2021) had an Adjusted R^2 of 0.353 on N = 780. Similarly, a study to predict information- and support-seeking in people with endometriosis in Australia yielded an overall model with R^2 of 43.4% (Lores et al., 2025).

On this basis of the results above, therefore, H1, which postulated that there is a significant and direct relationship between the attitude of the smallholder maize farmers and the sustainability of the ABP, is not supported.

Table 4.5: Decision Table

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Hypothesis	Predictor Variable	Expected Effect	Regression Result	Decision
H1	Attitude (ATT)	Positive	$\beta = .058$, $p = .115$ (ns)	Not Supported

Source: Field work (2025)

The positive, low but not significant relationship between ATT and behavioural intentions and ultimately behaviour is not consistent with some studies. For instance, Ho et al. (2022), in examining the factors predicting Singaporean scientists' willingness to conduct public engagement, found that attitude toward public engagement was positively associated with scientists' public engagement at a $p<.001$ level. However, the results in this work are similar to other studies such as Niland (2019), who found that attitude was not associated with fruit and vegetable intake in a study with participants from two counties in West Virginia, United States.

The situation can be understood on the basis of Fishbein and Ajzen in Sucianti (2017), which explained that attitudes are formed by two components, namely a behavioural belief that drives a person's attitude and an evaluative belief, which is the individual's positive or negative evaluation of the behaviour in question. This study suggests that a person could have a positive belief towards a behaviour, but the evaluation that is necessarily required to prompt the intention and ultimate behaviour might be unfavourable. The results of this study may also suggest that attitude towards a behaviour might be highly contextual in the sense that people in different contexts can behave differently towards the same issue simply because of their environmental realities.

Conclusion

This study was carried on the basis of the need to understand the behavioural motivations of the loan repayment intentions of borrowers in Nigeria and therefore the sustainability of commendable loan intervention schemes like the Anchor Borrowers Programme. It is expected that a better understanding of borrowers' loan repayment intentions can help creditors to conceptualise, develop and manage loan programmes towards attaining higher repayment rates. Higher loan repayment rates are not only desirable but crucial to the growth and stability of national economies through the creation of jobs, wealth and more economic opportunities for existing and new borrowers. However, attitude as shown in this study is not significantly related to sustainability of the Anchor Borrowers Programme.

The conceptualisation, development and approval of loan schemes both by government and private financial institutions should take the sustainability of programmes into account, as may be measured by the repayment of the loans. On the basis of the foregoing, the following recommendation is made:

1. That since attitude has a weak and insignificant relationship with sustainability of loan programmes, focus should be put by policymakers, loan product developers and credit managers on other variables that significantly affect loan repayment and, therefore, the sustainability of loan programmes.

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