

Impact of Micro Finance Banks on Developing Economies— Evidence from Nigeria



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ABSTRACT: This research concentrated on impact of micro finance banks on developing economies –evidence from Nigeria. The recent emphasis on micro, small and medium enterprises, and the licensing of microfinance bank in Nigeria viz-a-vis the dwindling economy of developing countries prompted this study. The data for the study was mined from the Central Bank of Nigeria’s statistical bulletin from 1992 to 2020. The E-view tool of analysis, and the Autoregressive Distributed Lag model were used. The research answered a question of whether microfinance banks contribute to economic growth or not. The unit root test showed that all parameters were stationary at first difference. Consequently, it was established that generally, there was a long run relationship between microfinance banks and economic growth in Nigeria while specifically, loans and deposits of microfinance banks showed significant and positive coefficients. Similarly, a causality test indicates that there exists a unidirectional causality between microfinance bank loans and economic growth, and microfinance bank deposits and economic growth. The researcher among other recommendations opined that Central Bank should be more objective in monitoring microfinance banks to avoid failure in that sub-sector which is likely the cradle of economic growth in the developing countries.

KEY WORDS: Rural dwellers, poverty alleviation, empowerment, microcredit, microfinance, economic growth.

1. INTRODUCTION

The trend in economic growth of developing nations like Nigeria is important to economic agents mostly now that the basic economic indicators are unpredictable. Over the years the Nigeria’s economy has been in comatose which has brought us into a lot of innovations. One of the innovations is the Micro-Finance Bank.(Ikechukwu, 2012) stated that Micro-finance bank had its root in Bangladesh and was inaugurated in Nigeria in 2005.(*THE ROLE OF MICROFINANCE BANKS IN THE ECONOMIC DEVELOPMENT OF A NATION 1*, n.d.) Indicates that the essence of Microfinance banks is to transform and empower the rural dwellers. The paper further emphasizes that microfinance banks must be geared towards the alleviation of poverty in Nigeria. For there to be empowerment of the rural dwellers, it must cut across all the strata of the rural dwellers in the country. Empowerment is about making one stronger in his/her area of trade/competence. If the rural dwellers must be empowered to do more so as to sustain themselves in their welfare and contribute their quota to the growth of the economy,there must be deliberate attempt to empower them. Forinstance, those in agriculture needs fertilizers improved seedlings and implements for them to be productive in agriculture and in other areas of endeavour. According to the paper “The Role of Microfinance Banks in the Economic Development of Nation 1” the roles of microfinance banks include but not limited to deposit mobilization and promotion of saving culture, credit extension to customers, employment generation, and promotion of entrepreneurship.

(Ikechukwu, 2012) In his work on Microfinance Banks in Nigeria: Problems and prospects defined Microfinance as the availability of finance and financial services to the rural dwellers or those that does not have sufficient funds to trade. By implication, microfinance is in another form of poverty alleviation. Based on the work of(Robinson, 2001) income is protected, increased, and diversified when customers use microfinance banks to enable them to acquire or increase their assets. On the other hand,(Seibel, n.d. 2007) opines that microfinance banks provide services that includes banking and non-banking, formal and non-formal to institutions and individuals alike. These services are done at a small scale to mostly low-income populace.

In 2020 according to The conversation Journal (2021) using world bank thresh hold of \$3.20 a day, Nigeria’s poverty rate is 71%. It is also on record that 56% of Nigerians’ income is spent on food alone and this contributes to the poverty index of the country. This is seen as the highest in the world when compared to that of Australia, Canada, UK and US that spends 9.8%, 9.1%, 8.2%, 6.4% respectively. Nigeria’s Gross National Income per capita moved from 2173 US dollars in 2019 to 1946 US dollars in 2020 making it a 10.45% slide in per capita income.

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The rate of poverty in Nigeria is so astronomical that many finance experts are researching on the way out. Establishment of microfinance banks brings financial services close to the people particularly those in the rural areas. According to Ogbonna & Ejem, 2020 opined that financial deepening is the increase in financial services to the people. When financial services are close to the people it improves their economic well being as they will have access to funds for their businesses. Based on the importance of microfinance banks the researcher embarked on this study in order to ascertain if microfinance bank impacts on the growth of an economy or not.

2. LITERATURE REVIEW

2.1 Conceptual Review

2.1.1 Microfinance

Osamwonyi & Obayagbona, 2012 says that Microfinance entails creating a system of finance that will empower the masses particularly, the rural dwellers and the poor in order for them to meet their needs. It is geared towards poverty alleviation and economic empowerment. Stanley & Ezeanyej, 2017 says that extending microcredit to the populace creates employment, self-reliance, generation of earnings which in turn will improve the standard of living of the people hence improvement in economic growth and development. The idea of microfinance is to ensure the alleviation of poverty and improve the economic power of the poor people in Nigeria. It is meant to reach as many people as possible. Similarly, it is an instrument of financial inclusion. It is meant to encourage the mopping of funds that are outside the financial system. Microfinance in its entirety should contribute to the overall well being of Nigerians and the economy.

Prior to the advent of the modern Microfinance Banks, there have been attempts to establish such banks to take care of microcredit and its like. This has been both formal and informal.

2.1.2 Poverty Alleviation Programmes in Nigeria

In 1972, the Government of General Yakubu Gowon established such programme as the National Accelerated Food Production Programme (NAFPP) and later Nigerian Agricultural and cooperative Bank (NACB) which never achieved its objective. During the first republic, Alhaji Shehu Shagari in 1979 brought the Green Revolution whose aim was to introduce mechanized farming. The project gulped about N2 billion without any success. General Ibrahim Babangida launched the Directorate of Food and Rural Infrastructure (DFRRI) to provide feeder roads, toilet facilities, electricity, and portable water for rural dwellers. This programme was followed by Better Life for Rural women programme which was the baby of the first lady at that time, yet nothing came out of it. Other such programmes include Nigerian Agricultural Land Development Authority (NALDA), National Directorate of Employment (NDE). Among all these programmes it is only NDE that will be judged as relatively successful. During the regime of General Sanni Abacha, the Family Economic Advancement Programme (FEAP) was enunciated which required a borrower of the fund to deposit 10% of the amount needed to the participating bank. This programme got a total sum of N3 billion out of the N7 billion approved but was marred by loan defaults. In 1999 General Obasanjo came up with the National Poverty Eradication Programme (NAPEP) which was meant to wipe poverty from Nigeria by the year 2019. Social Services Welfare Scheme (SSOWES) designed to provide standard special and primary education, which will empower farmers, and primary health care etc.

2.1.3 Rural Banking Programmes

Toby & Akani (2014) stated that prior to 1977 when Central Bank of Nigeria ordered banks in Nigeria to open rural banks in Nigeria. The objective of this was to foster financial inclusion and solve the challenges of microcredit which was prevalent in the various programmes of government before this time. In this Rural Banking Programme, the Central Bank of Nigeria allocated a minimum number of rural branches to be established by each bank in various communities of the country. Apart from extending banking services, the rural branches were expected to achieve the following:

- efficient allocation of resources in various areas and regions
- savings deposit mobilization
- to be back-up for new government programmes
- to be a connection between money markets and capital markets in the rural areas
- distribution of credit to productive ventures.

The above objectives were not achieved as a result of the challenges listed below:

- Lack of basic infrastructure which made those areas to be inaccessible
- Staff recruited were in urban areas and not willing to relocate to the rural branches
- There were low business activities in the rural areas and banks are doing business to make profit
- There were no suitable accommodation for banking business in those areas
- There were security problems as some of the branches were vulnerable to robbery.

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It is believed that the above challenges coupled with bank distress led to the failure of rural banking in Nigeria which now culminated into the establishment of the Peoples Bank of Nigeria in 1989 and subsequently Community banks and now Microfinance Banks.

2.1.4 Various Models of Microfinance Banking

Many models of microfinance banking have been practiced round the globe. Few of them will be reviewed here.

Grameen Bank

Khan and Rahaman (2007) stated that this model of microfinance banking was tested in Bangladesh in the 1970s and established in 1983. The essence of this bank was to provide credit to poor rural women who are grouped in fives. This was piloted by bank officers who operate between 15 to 20 villages. The credit facilities are extended in batches of two among the five in a group. The two that receives the money are given a period of one month for repayment which shouldn't last beyond 50 weeks. If repayment is made, then other members of the group will now be eligible for the next round of loan. The mode of operation of this scheme made it imperative for the group members to police those that are beneficiaries to enable them get theirs in the course of time. It is majorly a programme for the poor.

Nongovernment Organization (NGO)

This model is informal and was predominant in the Gambia and Ghana. Akanji (2001) noted that this model is based on gender and the sector. The programme is mainly driven by women groups, farmers, trade unions etc. They accept deposit with high rate of interest which is decided by the village assemblies. They have credit committees usually formed by the village assemblies. The assemblies determine the responsibilities, interest rate, and instruments to be accepted in savings.

Esusu

This is an informal scheme which engages in deposit taking and credit revolving scheme. Some individuals use this as a means of savings and may not apply for any loan, while some save so as to apply for loan to assist in their businesses. The Esusu fund has helped in eradicating poverty as many traders are involved in it. It is a daily/weekly/monthly contribution depending on the individual which is usually collected at the end of a specific period. Borrowers apply for specific sums of money and are guaranteed by those involved in the scheme who undertake to repay if the borrower defaults.

2.2 Theoretical Review

2.2.1 Economic Growth Theory

(i) Theory of Neo-Classical and Endogenous Growth

Solow (1956) was the chief proponent of the Neo-Classical growth model. The outlook of the Neo-Classical Theory is that for there to be economic growth, there must be long-term capital investment. The believe of the Neo-classical proponents is that capital investments direct funds to sectors that are productive where an economy is lacking in capital. This will consequently bring an increase in the growth of the economy hence increase in marginal capital productivity. The proponents of endogenous growth theory believes that progress in technology is not a constant in a growth model policy of government and that technology can permanently raise a country's growth rate if they lead to competition in markets and help to stimulate product and process innovation.

(ii) The Solow Development Model

This model talks prominently of productivity (output per worker) and labour. In Solow's view, there should be an uninterrupted relationship between inputs and outputs of labour and capital that are continuous. This theory ascertains the worth of the parameters (variables), and stability of the economy.

(iii) Rostow and Musgrave Conception of Public Expenditure Growth

Rostow (1960) opined that there is usually change in the public service income elasticity of demand, which led to this theory. Musgrave (1970) discovered that when income per capita is high in developed economies that the rate of growth in public sector reduces since the increase in per capita income satisfies the basic needs of the people.

(iv) Harrod-Domar Theory of Progress

Harrod (1939) and Domar (1946) after studying the behaviour of economies came up with the idea of three types of growth viz warranted growth, actual growth and natural rate of growth. They concluded that investment plays an important role in economic growth and that investment generates income and supplements the capacity to produce in an economy through capital stock increase.

(v) The Keynesian Theory

Keynes (1936) in his economic theory sees public expenditure as an inherent component that can be used as an instrument of policy that will advance economic growth. He went further to state that when government consumption increases, that it brings

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about enhanced employment, investment and profitability which comes as a result of the multiplier effect of the increase in consumption.

2.3 Empirical Review

Tagamet (2019) investigated the effect of microfinance institutions on reduction of poverty as well as entrepreneurial activities in Nigeria, using survey research technique administering questionnaires to a reasonable number of respondents in the micro, small and medium enterprises sub-sector in Ikpoba Okha Local Government Area in Edo State, Nigeria. The outcome of the analysis shows that there is a significant and positive relationship between microfinance institutions and poverty alleviation in Nigeria. However, there was a positive and insignificant relationship between activities of entrepreneurs and reduction in poverty.

Usifo & Ezeanyaeji (2017) did a study on the Impact of Microfinance Banks on Poverty Alleviation and Economic Growth in Nigeria using the Augmented Dickey-Fuller test, Unit Root test, Johansen cointegration test and Error Correction Model (ECM) for the analysis. The study employed the time series data from Central Bank of Nigeria statistical bulletin from 1992 to 2016. The result of the study revealed that the asset of microfinance banks has significant effect on economic growth in Nigeria and poverty alleviation. Ugochukwu & Onochie (2017) in their study of the Impact of micro-credit on poverty reduction in Nigeria, using the data of 1999 to 2008 engaged OLS regression analysis which revealed that there is a negative relationship between microfinance lending and poverty alleviation in Nigeria.

Similarly, Okafor, Ezeaku & Ugwuegbe (2016) used Error Correction Model (ECM) and examined the Impact of microcredit on poverty reduction in Nigeria (1999 – 2014). The result of the study used ECM and shows that there is a negative and non-significant relationship between microcredit and poverty reduction in Nigeria. On the other hand, interest rate has a negative but significant influence on poverty reduction in Nigeria.

Ifionu & Olieh (2016) investigated microfinance banking operations in Nigeria and its impact on economic development (2005 to 2014). In this study loans and deposits were used as proxy for microfinance bank operations and Human Development Index (HDI) employed as a proxy for economic development. It was discovered that deposit in microfinance banks for a decade has a significant and positive relationship with economic development. On the contrary, it was discovered that loans of microfinance relate negatively to economic development.

Apere (2016) in his paper on the impact of microfinance banks on economic growth in Nigeria, using Augmented Dickey-Fuller Unit Root Test, cointegration test, error correction model (ECM) and the parsimonious test on data of 1992 to 2013, inferred that microfinance bank loans and domestic investment have significant relationship with the economic growth of Nigeria. Examining the contribution of microfinance institutions to Nigeria's economic growth.

Akpan & Nneji (2015) studied microfinance banks' contribution to the expansion of small businesses in Nigeria. The ordinary least square method was used, and it was observed that microfinance banks are major contributors to a conducive business environment and also helps small and medium enterprises in accessing finance for their businesses. Similarly, some parameters like duration of loan, and size of loan have positive impact on small and medium enterprises. The implication of this is that confirms the positive contribution of microfinance bank in the promotion of the growth and performance.

Ayodele and Kayode (2014) investigated the impact of microfinance to economic growth on economic growth and development in Nigeria. The study using ordinary least square technique of multiple regression showed that microfinance activities have positive and significant impact on economic growth and development in Nigeria. The implication of the result of the study is that if people and or government invests more on microfinance, there will be more employment generation and additional economic growth in Nigeria.

Ademola & Arogundade (2014) investigated the impact of microfinance on economic growth in Nigeria using Ordinary Least Square technique discovered that the deposit liability and assets of microfinance bank are not significantly related to economic growth. On the other hand, credit facilities (loans and advances) are significantly related to economic growth.

Babajide (2012) investigated the effects of microfinance on small and medium enterprises in South West Nigeria, employing Hazard Model, Multiple Regression Analysis and Diagnostic Test Kaplan-Meier Estimate,. The result of the research shows that microfinancing improves the survival of small businesses, influences the productivity level of small and medium enterprises in the area under study.

Olakojo and Olanipekun (2011) investigated the impact of microfinance bank on the Nigerian economy. The study did a sector-by-sector analyses using pooled regression and ordinary least square method for the period 1992 to 2008. It was discovered that there is a positive relationship between loans and advances from a microfinance bank and manufacturing, building/construction, and mining/quarrying, while there was no relationship with the agricultural sector.

Oluyombo (2011) using Ordinary Least Square regression method, with disbursed credits as proxy for operational activities of microfinance banks the study observed a positive but weak relationship economic growth and microfinance banks' operations.

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Onyebinama and Onyebinama (2010) looked at microfinance banks and economic opportunities in the informal sector of the Nigerian economy. Using percentile system of analysis, the result indicated that microcredit facilities extended to the populace and deposits mobilized by microfinance banks have to a reasonable extent brought about financial inclusion of the informal sector as such making the informal sector to be market oriented. Maksudova (2010) in the examination of the role of microfinance to financial development and economic growth in Czech Republic, inferred that microfinance banks cause economic growth in underdeveloped economies when lagged in countries that are still not developed in financial intermediation.

On the other hand, Okpara (2010) did a study on Microfinance Banks and Poverty Alleviation in Nigeria. The study employed the two-stage regression technique and discovered that at the starting stage of microfinance banking, there was increase in poverty while at the second stage review, there was increase in the disbursement of microcredit, poverty rate was observed to have declined significantly.

2.4 Gap in Literature

This research is aimed at examining the impact of microfinance banks on the growth of developing economies using evidence from Nigeria. A review of the existing literature shows some anomalies. While some studies show positive impact, others show negative. It was equally observed that amongst all the studies reviewed, it was only one that did a causal study of the data analyzed. Similarly, it was observed that most of the studies did not employ the unit root test which means that the long run estimates may be spurious. Consequently, this study will employ granger causality test to know the variable that granger causes the other and the unit root test to ensure that the long run estimates are reliable.

2.5 Significance of the Study

This study will be of immense benefit to the developing countries in the sense that it has exposed the importance of microfinance banks in economic growth. The study also shows the areas that should be concentrated in microfinance bank operations in order to achieve economic growth in developing countries.

3. METHODOLOGY AND MODEL SPECIFICATION

3.1 Data Collection and Preparation

Central Bank of Nigeria Statistical Bulletin was where the data for this research was sourced, for the period 2020.

3.2 The Model Specification

Based on the theoretical framework of this study, the model for this study is presented thus:

$$RGDP = f(PR, MBA, MBD, MBL, MBE,) \text{ ----- } 3.1$$

Where;

RGDP = Gross Domestic Product

ROP = Rate of poverty

MBA = Microfinance Bank Assets

MBD = Microfinance Bank Deposits

MBL = Microfinance Bank Loans

MBE = Microfinance Bank Earnings

$$RGDP = \alpha_0 + \alpha_1 ROP + \alpha_2 MBA + \alpha_3 MBD + \alpha_4 MBL + \alpha_5 MBE + U_t \text{ ----- } 3.2$$

Where;

RGDP = Real Gross Domestic Product

ROP = Rate of Poverty

MBA = Microfinance bank Assets

MBD = Microfinance bank Deposit Liabilities

MBL = Microfinance banks Loans

MBE = Microfinance banks Earnings

α_0 = Constant

$\alpha_1 - \alpha_5$ = Parameters for estimations

U_t = Stochastic Error term

3.3 Variables

The variables used in the models are as follows:

a) The Dependent variables

RP = Rate of poverty

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MBA = Microfinance Bank Assets

MBD = Microfinance Bank Deposits

MBL = Microfinance Bank Loans

MBE = Microfinance Bank Earnings

b) Independent

RGDP = Real Domestic Product

Procedure of Estimation

For correct analysis, the technique of analysis is the multiple regression, while the E-view is the tool used. The Unit root test was employed to ensure that there were no spurious regression estimations. Similarly, the Augmented Dickey-Fuller test will be used to establish the order of integration of the individual series being considered. By so doing the level of stationarity of the variables was determined.

The researcher used the Autoregressive Distributed Lag (ARDL) to analyze the short and long run effect of both the dependent and independent variables. According to Pesaran et al (2001), this technique is the best when the variables are stationary at level 1(0) or at 1(1).

3.3.1 A priori Expectation

It is expected that $\alpha_0 > 0$, $\alpha_1 < 0$ while $\alpha_2 - \alpha_5 > 0$ While α_0 , is the coefficient of poverty rate, α_1 , to α_5 are the coefficients of rate of poverty, micro finance bank assets, microfinance bank deposits, microfinance bank loans, and microfinance bank earnings, respectively. It is the researcher's expectation that while the poverty rate reduces because of the activities of the microfinance banks (represented in MBA, MBD, MBL, and MBE) which is equally expected to increase, the GDP is ultimately impacted positively.

4. Analysis And Results

4.1. Descriptive Statistics Test

Table 4.1: Descriptive Statistics

	RGDP	MBD	MBE	MBL	MBA	ROP
Mean	46390.66	148895.9	9935.772	13770.43	325277.6	269042.2
Median	30063.96	41217.70	2568.350	384.3200	75549.80	213101.9
Maximum	152324.1	1466730.	79130.00	113330.0	3564080.	748290.6
Minimum	897.1200	639.6000	-2116.300	11.95000	967.2000	9045.670
Std. Dev.	47547.97	352778.4	19318.75	29500.33	805223.1	241596.3
Skewness	0.843880	3.248395	2.817539	2.693021	3.348446	0.580558
Kurtosis	2.443890	11.98277	10.08975	9.286230	12.83666	1.967003
Jarque-Bera	3.815663	148.5023	99.10586	82.80241	171.1101	2.918456
Probability	0.148402	0.000000	0.000000	0.000000	0.000000	0.232416
Obs	29	29	29	29	29	29

Source: Researcher's compilation (2022)

Table 4.1 shows the descriptive statistics for the variables and as observed, GDP has a mean of 46390.66 billion with maximum and minimum values of 152324.1 and 897.12 respectively. The standard deviation stood at 47547.97 billion which is large as expected and indicates significant year-on-year variations in GDP values. The mean for Deposits stood at 148895.9 million with maximum and minimum values of 1466730 and 639.6 respectively with a standard deviation of 352778.4 which is also very large and indicates significant year-on-year variations in micro finance bank deposits values. The mean for earnings is 9935.772 million with maximum and minimum values of 79130.00 and -2116.300 with a standard deviation of 19318. The mean for loan advances of micro finance banks in Nigeria stood 13770.43million with maximum and minimum values of 113330.0 and 11.95000 respectively with a standard deviation of 29500.33. In addition, total assets of micro-finance banks in Nigeria stood at 325277.6million while the mean for poverty measured by per capita GDP stood 269042.2.

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Table 4.2: Augmented -Dickey Fuller (ADF) Unit root test Results

Unit root test at levels			
	ADF-Test Statistic	95% Critical ADF Value	Remark
RGDP	5.8293	2.96	Stationary
MBD	3.9302	”	Stationary
MBE	2.3801	”	Stationary
MBL	1.6371	”	Non-stationary
MBA	3.033	”	‘stationary
ROP	2.102		Non-stationary
Unit root test at 1 st difference			
	ADF-Test Statistic	95% Critical ADF Value	Remark
RGDP	6.9283	2.96	Stationary
MBD	3.611		
MBE	3.367	”	”
MBL	4.761	”	”
MBA	7.491	”	”
ROP	5.8391	”	”

Source: Researcher’s compilation (2022)

The Augmented -Dickey Fuller (ADF) test is employed to analyse the unit roots. The results are presented in levels and first difference. This enables us to determine in comparative terms, the unit root among the time series and also to obtain more robust results. The result indicates that GDP, Deposits, Earnings and TA have ADF values greater than the 95% critical ADF value of 2.96. The implication of this is that the time series for these variables are stationary in their levels. Moving forward, we take the first differences of the respective variables and perform the unit root test on each of the resultant time series. With these results, all variables are adjudged to be stationary. Thus, we accept the hypothesis that the variables possess unit roots.

Table 4.3: Bounds Test for Co-integration

Test Statistic	Value	Signif.	I(0)	I(1)
Asymptotic: n=1000				
F-statistic	60.10514	10%	2.08	3
K	5	5%	2.39	3.38
		2.5%	2.7	3.73
		1%	3.06	4.15

Source: Researcher’s compilation (2022)

Table 4.3 showed the result of the Bounds test of long run co-integration between economic growth and micro finance banks in Nigeria. The evaluation of the results was based on the critical F-statistic values for the lower and upper bounds as also reported in the results. According to the empirical output of the F-values, it could be seen that the null hypothesis of no long-run relationship is rejected at the 5% level of significance as the f-value of 60.10514 exceeds critical values for I(0) and I(1) respectively.

Table 4.4: ARDL Results: Selected Model: ARDL(3, 3, 2, 3, 3, 3)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Long run Results				
MBD	1.610574	0.321179	5.014574	0.0153
MBE	-0.989943	0.175026	-5.655979	0.0109
MBL	1.243616	0.179236	6.938430	0.0061

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MBA	-0.670614	0.155177	-4.321616	0.0228
ROP	0.175751	0.006984	25.16534	0.0001
C	-3848.022	501.8794	-7.667226	0.0046
Short-Run Results				
D(RGDP(-1))	0.125788	0.048313	2.603594	0.0801
D(RGDP(-2))	-2.138250	0.100976	-21.17589	0.0002
D(MBD)	0.110519	0.004082	27.07207	0.0001
D(MBD(-1))	-0.261526	0.007075	-36.96619	0.0000
D(MBD(-2))	-0.254974	0.008852	-28.80364	0.0001
D(MBE)	-0.064085	0.002935	-21.83442	0.0002
D(MBE(-1))	0.145011	0.005530	26.22112	0.0001
D(MBL)	-0.037293	0.002878	-12.95858	0.0010
D(MBL(-1))	-0.351890	0.012003	-29.31566	0.0001
D(MBL(-2))	-0.325715	0.013522	-24.08763	0.0002
D(MBA)	-0.048520	0.001935	-25.07101	0.0001
D(MBA(-1))	0.094137	0.002940	32.01874	0.0001
D(MBA(-2))	0.109952	0.004002	27.47446	0.0001
D(ROP)	0.168506	0.000710	237.3581	0.0000
D(ROP(-1))	-0.045367	0.006978	-6.501459	0.0074
D(ROP(-2))	0.240635	0.012532	19.20164	0.0003
CointEq(-1)*	-0.405211	0.011406	-35.52757	0.0000
Adjusted R-squared	0.999957	S.D. dependent var		4463.571
S.E. of regression	29.33901	Akaike info criterion		9.842534
Sum squared resid	7746.998	Schwarz criterion		10.66514
Log likelihood	-110.9529	Hannan-Quinn criter.		10.07941
Durbin-Watson stat	2.246483			

Source: Researcher's compilation (2022)

The long run ARDL results reveal the impact of Micro-finance banks on economic growth in Nigeria. The effect of Deposits is positive (1.61057) and significant at 5% which implies that an increase in micro finance bank deposits will positively impact economic growth. In the case of Micro-finance bank Earnings, the effect on GDP is negative (-0.9899) and significant at 5%. Micro-finance bank loans have a positive impact on economic growth and significant at 5%. This is in line with theoretical expectation, hence, increases in micro finance bank loans and advances to the public stimulates economic growth. Total assets of micro finance banks negatively impact economic growth in the long run while Poverty indicated by GDP per capita has a positive effect on economic growth, which implies that an increase in GDP per capital (a decrease in poverty) stimulates economic growth. In the short run, the results reveal oscillations in the coefficients of the independent variables which reflect the dynamics of the relationship in the short run. The error correction coefficient has the expected negative sign and indicates that 40% of adjustments within one year are achieved and this is fair which may indicate a fairly fast dynamic adjustment in the relationship between micro finance banks and economic growth in Nigeria.

Table 4.5: Diagnostics Test

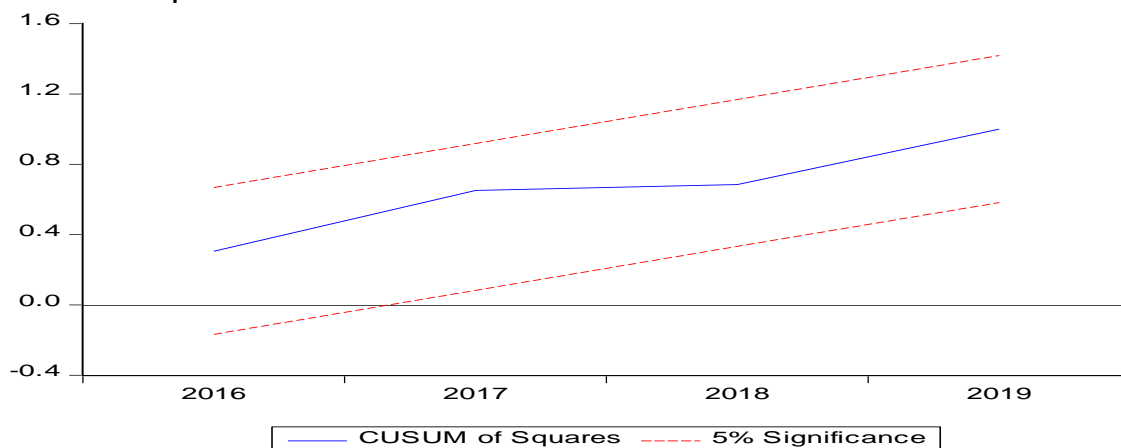
χ^2_{Hetero}	0.34186(0.9516)
$\chi^2_{\text{Serial/Corr}}$	1.06947 (0.3771)
χ^2_{Norm}	1.6979 (0.4278)
χ^2_{Ramsey}	1.3269 (0.328)

Source: Researcher's Compilation from E-views 10 (2021).

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The diagnostics reveals that the χ^2_{Hetero} p-value (0.9516) implies the homoscedastic behaviour of the errors and the $\chi^2_{\text{Serial/Corr}}$ p-value (0.3771) also reveals the absence of serial correlation. In addition, χ^2_{Norm} p-value (0.4278) reveals that the series follow a normal distribution and the χ^2_{Ramsey} p-value (0.328) indicates that the mode is correctly specified.

Figure 1: ARDL Cusum of Squares



The ARDL cusum of squares is within the 5 per cent critical lines; this implies that the parameters in both models are stable. Also, the stability of the cusum of the square residuals implies error variance stability, thereby, parameters are stable as well.

4.3 Direction of Causality

Table 4.6 : Pairwise Granger Causality Tests

Null Hypothesis:	Obs	F-Statistic	Prob.
RP does not Granger Cause RGDP	27	1.31116	0.2898
RGDP does not Granger Cause RP		1.28012	0.2979
MBL does not Granger Cause RGDP	27	6.04884	0.0081
RGDP does not Granger Cause MBL		0.73024	0.4931
MBE does not Granger Cause RGDP	27	2.43305	0.1110
RGDP does not Granger Cause MBE		1.80153	0.1886
MBD does not Granger Cause RGDP	27	4.74333	0.0194
RGDP does not Granger Cause MBD		0.49916	0.6138
MBA does not Granger Cause RGDP	27	5.24299	0.0137
RGDP does not Granger Cause MBA		0.82829	0.4500

The table above reveals the direction of causality between the micro finance banks variables and real economic growth variable. It shows that MBL, MBD and MBA granger cause RGDP, whereas RGDP does not granger cause MBL, MBD and MBA. That shows that MBL, MBD and MBA with RGDP have unidirectional effect, no feedback effect. It was also discovered that RP, MBE and RGDP have no established direction of causality at 5% or even 10% significance level.

Figure 2: Normal Distribution Test

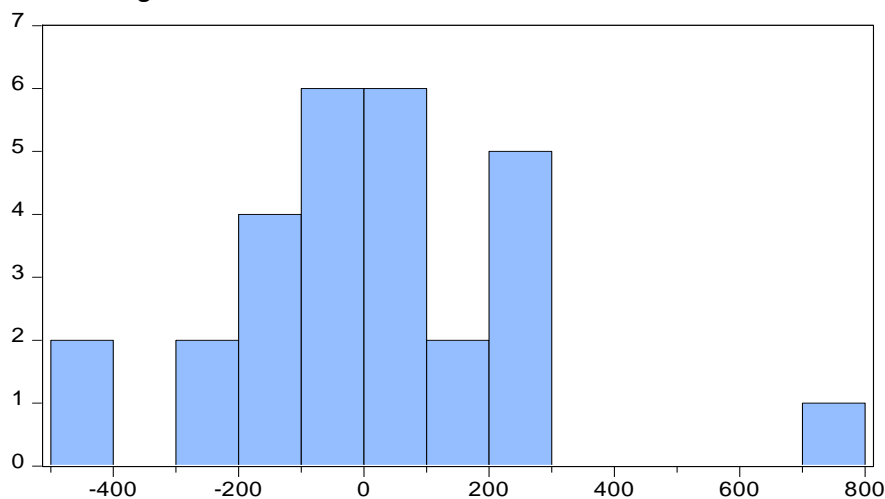


Table 4.7

Series: Residuals Sample 1993 2020 Observations 28	
Mean	3.19e-12
Median	-5.112943
Maximum	701.1393
Minimum	-459.9078
Std. Dev.	232.4585
Skewness	0.595946
Kurtosis	4.479441
Jarque-Bera	4.210907
Probability	0.121790

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From table 4.7 above, the second moment (standard deviation) has large value of 232.4585 with maximum value of 701.1393 and minimum value of -459.9078 showing enough gap suggesting high variations. The third moment (Kurtosis) is 4.479441, which is higher than 3 indicating leptokurtic distributions. It is important to point out that the skewness is positively skewed suggesting the distribution has a long right tail. Finally, Jarque-Bera coefficient is 4.210907 with probability value of 0.121790, implying normal distribution.

4.3 Discussion of Findings

This work dwells on impact of micro finance banks on developing economies –evidence from Nigeria. The outcome of the analyses above shows a long run relationship between the Micro-finance banks variables used in the study and economic growth in Nigeria. Furthermore, looking at the individual variables, Microfinance Bank Deposits is positive and significant at 5% which implies that an increase in microfinance bank deposits will positively impact economic growth. In the case of Micro-finance bank Earnings and total assets, the effect on RGDP is negative and significant at 5% . Similarly, Micro-finance Bank loans have a positive impact on economic growth and significant at 5%. Apart from the result of the earnings and total assets, all other long run results are in line with the a priori expectation, hence, increase in microfinance bank deposits, and increases in micro finance bank loans and advances to the public stimulates economic growth. Rate of Poverty indicated by GDP per capita has a positive effect on economic growth, which implies that an increase in GDP per capital (a decrease in poverty) stimulates economic growth. In the short run, the results reveal oscillations in the coefficients of the independent variables which reflect the dynamics of the relationship in the short run. The error correction coefficient has the expected negative sign and indicates that 40% of adjustments within one year are achieved and this is fair and may indicate a fast dynamic adjustment in the relationship between micro finance banks and economic growth in Nigeria.

To close some observed research gaps, a causality test was done using the Pairwise Granger Causality technique. The causality between the microfinance banks variables and real economic growth variable, shows that Microfinance bank loans, Microfinance bank deposits(MBD) and Microfinance bank assets(MBA) granger cause Real Gross Domestic Product(RGDP), whereas RGDP does not granger cause MBL, MBD and MBA. That shows that MBL, MBD and MBA with RGDP have unidirectional and no feedback effect. It was also discovered that Rate of Poverty (ROP), Microfinance bank earnings(MBE) and Real Gross Domestic Product(RGDP) have no established direction of causality at 5% or even 10% significance level. The causality test results confirm the long run relationship between Microfinance bank loans and deposits with economic growth.

5. SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 Summary Of Findings

This study examined Impact of Micro Finance Banks On Developing Economies –Evidence From Nigeria. The outcome of the study shows that microfinance banks impacts on the growth of the Nigerian economy.

5.2 Conclusion

Sequel to the findings of the study, the researcher concludes that there exists a long run relationship between Microfinance bank operations as represented in the loans and deposits with economic growth in Nigeria. A policy insinuation of the outcome of this research is that the country should pay more attention to microfinance banks with a view to regulating and improving the services of microfinance banks as to drive economic growth through the bank. It is equally instructive to note that if microfinance banks drive economic growth, then more attention should be given to Micro, Small, and medium enterprises as the performance of microfinance banks is a pointer to the area that will impact positively on the growth of developing economies.

5.3 Recommendations

Consequent upon the result of this study, the following recommendations are made:

- i. Central Bank should encourage the establishment of more microfinance banks so as to extend more services to micro units in the country
- ii. More objective monitoring from the regulatory authorities to protect the microfinance banks.
- iii. There should be awareness creation on the benefits of the masses patronizing microfinance banks.
- iv. Microfinance banks should embark on more products and services that will be attractive to their target customers.
- v. The Federal Government should motivate microfinance banks by creating funds that will enable them extend loans to their customers.

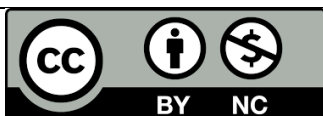
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