Lafia Journal of Economics and Management Sciences: Volume 7, Issue 2; 2022
ISSN: 2550-732X
Published by Department of Economics, Federal University of Lafia, Nigeria

Microfinance Bank as a Predictor of Poverty Alleviation and Economic Growth in Nigeria

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Abstract

The paper examines microfinance banks as a predictor of poverty alleviation and economic growth in Nigeria from 1980 to 2020. The paper made use of the Johansen co-integration test and an error correction model as estimation techniques, and the results of the Johansen co-integration test showed a long-run relationship between microfinance banks, poverty alleviation, and economic growth in Nigeria. However, the results of the error correction model showed that poverty alleviation has no significant impact on economic growth in Nigeria and that the assets of microfinance banks have a significant impact on poverty alleviation and economic growth in Nigeria. The result also shows that the deposits of microfinance banks have a significant effect on poverty alleviation and economic growth in Nigeria, but that the loans and advances of microfinance banks do not have a significant effect on poverty alleviation and economic growth in Nigeria. The paper conclude that microfinance banks are the most important determinants of poverty alleviation in a country, and this relationship has been thoroughly debated and acknowledged by many governments. However, as long as poverty and underdevelopment exist, microfinance banks will be crucial. While the paper recommends that the government should introduce rules that would allow microfinance loans to have an impact on poverty reduction through the small and medium-sized firm sector and to lend money to small businesses, the Nigerian central bank should establish rules that require a certain amount of bank deposits to be set aside as loans.

Keywords: Microfinance Bank, Poverty Alleviation, Economic Growth

JEL Classification Codes: G21, I132, F43

1. Introduction

According to the Central Bank of Nigeria (2005) and the revised new regulatory guidelines of the Central Bank of Nigeria (2012), microfinance entails providing financial assistance to the poor who do not have access to micro financial services from the conventional financial institutions, and microfinance banks perform three basic functions distinct from those of the other financial institutions such as there is no collateral security associated, the loans to consumers are quite small, and running the business is rather straightforward. It was also made clear in the same policy framework that the informal financial sector, which includes NGOs, microfinance institutions, credit unions, moneylenders, Osusu, and so on, serves the remaining 65% of the economically active population that does not have access to the formal financial sector (Egboro, 2015).

Thus, the primary motivation behind the rise of microfinance banks in Nigeria is to serve this underserved population. Microfinance banks have been proven to be an effective tool for reducing poverty and fostering economic growth in many of the world's least developed regions (Bakhtiari, 2011). According to Hossain (1988), in Bangladesh, members of Grameen banks who are impoverished and without land had greater household incomes than typical landowners by 43 percent. With Yunus (2006) Nobel Peace Prize, there has been a renewed focus on learning how microfinance institutions might help reduce global poverty. Poverty eradication is a Millennium Development Goal since it's a worldwide concern. Studies show the poor are creditworthy and eager to borrow. Microfinance banking helps the needy. This banking concept, which has helped reduce poverty in many industrialized and developing economies, was initially introduced in Nigeria in 1988. This banking model has been used in Nigeria for over a decade, but poverty remains. Nigeria's poor population quadrupled between 1980 and 2020 (Dele, 2020).

According to Adekemi (2020), the core poor went from 72% in 1980 to 95% in 2020, whereas the moderately poor rose from 39.1% to 64% in 1996, fell to 28.9% in 2005, and rose to 77% in 2019. His analysis showed that the percentage has been rising. The poor spend between 79% and 84% of their money on food. Compared to the non-poor, who spent 64% on food (Adefumi, 2020), Nigeria's economy has been in decline since the 1980s, according to UNDP (Central bank of Nigeria, 2005). Its Gross domestic Product (GDP), which was $93.3 billion in 1980, is now less than a quarter of that. Nigeria is the world's second-poorest country (Bade, 2020), and its poverty rate has climbed.

Despite all the anti-poverty programs, like microfinance banking, Nigeria's poverty is increasing.

According to a new report by the federal bureau of statistics, 133 million Nigerians live in terrible poverty. Microfinance was designed to combat poverty. This idea has worked in many developing and developed nations, including Nigeria. If properly executed and continuously monitored, the idea has a bright future. These specialist banks are failing due to weak policy implementation and insufficient funding, and their impact on the poor is small. By July 2010, 224 Nigerian microfinance banks had their licenses removed after a 2009 bank audit (CBN, 2010). As more microfinance banks fail to meet depositors' demands, more banks are closing their doors to them. The worst part is that the poor, whom these organizations are supposed to help, sink deeper into poverty. When these banks failed, the poor, who put their meager earnings into them for tiny loans, lost everything. Microfinance institutions, including the Directorate of Food, Roads, and Rural Infrastructures; the Better Life Programme; the Directorate of Employment; the People's Bank; the Community Bank; the Family Support Program; the National Poverty Eradication Program; and the National Economic Empowerment Program, despite having admirable goals and concepts, thorough studies and recommendations, and a variety of policies and programs launched by various governments, are failing.

Microfinance scholars and practitioners have discovered that most programs perform poorly in terms of sustainability and target population outreach. The shift in thinking prompted the researcher to analyze microfinance banks as a predictor of poverty alleviation and economic growth in Nigeria. Further, although commercial banks' performance in terms of providing loans to small business owners in Nigeria has fallen short of expectations, it is clear that they continue to hold a sizable share of the banking system's overall assets and deposit liabilities. Despite considerable restrictions posed by government rules, institutional restraints, and other macro-economic considerations, their total loans and advances, a major component of total credits to the private sector, are nonetheless on the rise. In the study of Olusanya, Oyebo and Ohadebere (2012), examine the determinants of lending behaviour of commercial banks in Nigeria and they conclude that commercial banks should be mindful of the facts that the environments in which they operate are important factors in the bank performance and behavior both to the individual and small and medium scale enterprises. However, where the environment is conducive and supportive, performance is enhanced and good lending behaviour guaranteed. But where the environment is unstable and harsh, the bank’s performances suffer. Commercial banks should note that they need to do a lot in order

to ensure good lending behaviour particularly to the small and medium scale enterprises even where a good measure of macro-economic stability is achieved.

Therefore, the study investigate microfinance banks as a predictor for poverty reduction and economic growth in Nigeria from 1980 to 2020. The objectives of the study is to look at the impact of poverty alleviation on economic growth in Nigeria and to examine the impact of assets of microfinance banks on economic growth in Nigeria. The objectives also examine the impact deposits of microfinance bank on economic growth in Nigeria and to determine the impact of loans and advances of microfinance banks on economic growth in Nigeria.

2. Literature Review

2.1 Conceptual Review

2.1.1 Concept of Microfinance

Micro financing, or creating a financial system for the world's poor, is a successful technique for fighting global poverty (Osamwonyi & Obayagbona, 2012). The poor can raise their income, accumulate assets, and prepare for future shocks when they have access to financial services. Microfinance is the provision of financial services to low-income individuals, families, and businesses, according to the Asian Development Bank (2011) and the Central Bank of Nigeria (2013). According to Roadman (2012), microfinance institutions assist low-income people who are underserved by traditional deposit money banks. It's the practice of giving low-income people small amounts of money to start and grow enterprises. Seibel (2001) offers a broader definition of microfinance that encompasses both formal and non-formal financial organizations that provide microfinance services to low-income people.

Mix (2010) defines microfinance as giving the needy microcredit, savings, and other services. These loans are nicknamed "micro" because of their low interest rates, which are a blessing to the poor who rely on them to keep their small companies viable and provide for their families. Rural places have market economies. It's a crucial part of reducing poverty for poor and low-income people. With the cash, they may increase their sales and earning potential, attracting investment and creating new jobs. Microcredit involves providing small sums of money or other resources to individuals or organizations with the expectation that they will put the money to good use and pay back a bigger sum later (Emelue, 2003). Microfinance involves creating and executing financial infrastructure to fulfill the needs of the economically disadvantaged. Microfinance offers low-income people, families, and companies' savings, loans, payment services, money transfers, and insurance.

Microfinance allows people to save, invest, and develop money to prevent, minimize, and profit from income and consumption shocks. A microfinance bank offers banking accounts and loans to freelancers and small business owners who don't have access to traditional banks, according to Roadman (2012). Microcredit gives low-income people small loans to start or expand a business.

2.1.2 Concept of Poverty Alleviation

Poverty, its metrics, and its effects on human lives, especially in Africa (Nigeria included) and the Third World, have been debated for over three decades. The World Bank (2012) defines extreme poverty as $1.90 per day and moderate poverty as $3.10 per day. While 133 million Nigerians live in poverty, one billion people worldwide are poor. According to the World Bank (2000, 2001) development report, poor people lack food, shelter, education, and health, preventing them from living quality lives. They are also vulnerable to infections, economic disruption, and epidemics. The poor are always mistreated by governments and society and cannot influence critical government choices affecting them (World Bank, 2000; Ganga, 2012). Ganga (2012) says that the heart of these disputes are the question of whether poverty is just about material deprivation or a larger set of demands.

Sen (1999) argued that poverty is about capability deficiencies, not poor earnings. Lack of resources is also a primary reason for a person's capability deprivation; thus, the capability approach to poverty does not overlook this. The deprivation that impoverished people face daily goes beyond monetary poverty and includes vulnerability, ill health, social inferiority, powerlessness, shame, and isolation (Chambers, 1995). Asian Development Bank (2004) defines poverty as the inability to access all the services needed for a normal life. Humans need food, peace, education, and health care. The impoverished should be able to work and be protected from external attacks. According to the recent survey of National Bureau of Statistics, 133 million Nigerians (67%) are impoverished. Poverty is defined as human, state, and institutionally generated evil or injustice that deprives innocent individuals in a society of the basic needs of existence (enough food and housing, education, and health) and prevents them from living a comfortable life. Poverty is a mental, financial, social, and economic injustice that deprives individuals of basic human requirements.

2.1.3 Concept of Economic Growth

Economic growth is when a nation's actual per capita income rises over time, according to Jhingan (2003). The increase in products and services generated in a country measures this process. In a booming

economy, more goods and services are made. Improving everyone's quality of life and reducing income disparity are broader goals. Solow (1956) growth model describes economic growth as an increase in total GDP caused by population growth, technological developments, and investment. Zhattau (2013) says economic expansion, which arises from greater capital and inventions, is the cornerstone of wealth. Growth was once defined as an increase in investment. In other words, the proportion of national income that is profit affects growth. Over the long-run, profit and growth are linked.

Financial, service, communications, and entertainment sectors are growing in Nigeria, a middle-income nation with a diverse economy and a rising market. Its expanding, albeit underperforming, manufacturing sector is West Africa's third-largest producer of goods and services. For instance, the administration of President Muhammadu Buhari focuses on fighting corruption, enhancing security, reducing unemployment, diversifying the economy, improving climate resilience, and raising the standard of living for Nigerians.

The federated system in Nigeria offers states a lot of freedom. Nigeria's GDP increased by 5.7% per year on average between 2006 and 2016, with 8% in 2006 and -1.5% in 2016. This rise was fueled by the unpredictable oil price, which peaked at 8% in 2006. Oil prices continue to affect Nigeria's growth pattern, despite the country's economy functioning better recently than during earlier boom-bust oil-price cycles, such as in the late 1970s or mid-1980s. It's West Africa's largest economy, ahead of South Africa and Egypt, and by 2025 it might be one of the world's top 20. In 1990, real GDP grew 7.9% compared to 2009, when basic price inflation was 7%. In 2010, growth was driven by a shrinking oil sector. The Nigerian economy grew 8.0% in 2010 thanks to crop output, wholesale and retail trade, and telecommunications. In the second half of 2017, economic growth is estimated to have averaged approximately 1% due to sustained agricultural expansion, higher oil output, and the favorable effects of better foreign exchange availability on investment and other private sector activity. Nigeria's economy has improved in the past 15 years. From 2005 to 2015, Nigeria's HDI rose 13.1%. However, the country still needs to grow. Public financial management, human development indicators, governance, and quality of life are issues. Diversifying the economy and reducing oil reliance are also goals. (Daniel, 2019)

2.2 Empirical Review

With respect to the poverty alleviation and microfinance bank nexus, numerous studies abound in the empirical literature on how microfinance banks can be effectively used to minimize the poverty level

in countries across the globe. Jegede, Kehinde and Akinlabi (2011) empirically examined the effect of microfinance credit on poverty reduction in Nigeria. Using the chi-square test, F-test, and T-test, the results showed that there was a significant difference between those who used microfinance banks and those who did not. Thus, microfinance institutions significantly influenced poverty alleviation by increasing the income and changing the economic status of those who patronized them.

Oladejo (2013) examined the impact of access to credit and other specific microfinance banks' related variables on selected SMEs located in Osun State, Nigeria. Using the descriptive statistics on primary and secondary data, the empirical analysis indicates a significant positive impact of microcredit delivery services on SMEs' performance. In another related study, Okezie, Bankoli and Ebomuche (2013) examine the effectiveness of microfinance banks in eradicating poverty in Nigeria using descriptive statistics on primary data involving 382 respondents for 3 senatorial districts in Imo State. The empirical results revealed that the high-income class has the ability to save the poor living in rural areas.

Akosile and Ajayi (2014) examined the impact of microfinance banks' credit facilities on micro, small, and medium enterprises in reducing poverty levels and achieving rapid economic growth in Nigeria. Employing the survey, correlation and descriptive research designs on five microfinance banks and three CICSs in the rural, semi-urban, and urban centers, the empirical results revealed a strong positive impact of microfinance credits and financial services on poverty reduction, low-income groups, as well as micro, small, and medium-scale enterprises in Nigeria. Kasali, Ahmad, and Lim (2015) investigate the microfinance bank and poverty reduction nexus in the south-west zone of Nigeria. Employing descriptive statistics and a Binary Logit Regression Model, the empirical results indicate that microfinance loans significantly impact the loan beneficiaries and, hence, poverty reduction.

The study by Kamel and Jalel-Eddine (2015) examined the effect of microfinance on poverty reduction for about 596 microfinance banks in 57 emerging economies for the period 2005–2011. Employing the panel data analysis, the empirical findings revealed that an economy with a higher gross microfinance institution loan portfolio per capita tends to reduce poverty levels among the people. This is an indication that microfinance banks have the ability to effectively alleviate poverty in these countries. Numerous studies have been undertaken around the world to determine the effect that microfinance banks and poverty reduction have on overall economic development. Only a handful of these studies are reviewed because they are thought to be of any use.

For instance, Ugochukwu and Onochie (2017), using the method of OLS regression analysis, examined the impact of microcredit on

poverty reduction in Nigeria from 1999 to 2008. The result showed the expected negative relationship between microfinance lending and poverty alleviation in Nigeria. Okafor, Ezeaku, and Ugwuegbe (2016), using the Error Correction Model (ECM) analytical technique, investigated the impact of microcredit on poverty reduction in Nigeria from the period 1999 to 2016. The research findings showed that microcredit has a negative and non-significant impact on poverty reduction in Nigeria. Interestingly, the size of microfinance banks in Nigeria has a positive impact on poverty reduction. In line with theoretical expectation, the interest rate was found to have a negative and significant effect on poverty reduction in Nigeria. However, a sectoral analysis using OLS revealed that the research findings indicate that while loans and advances from microfinance banks positively affect the output of the manufacturing, building and construction, mining, and quarrying sectors, the same could not be established for the agricultural sector.

According to Friday (2018), who studied the impact of microfinance banks on economic growth in Nigeria. He made use of an error correction model and Johansen co-integration analysis between 1980 and 2018, and the results show that there is a long-run relationship between microfinance banks and economic growth in Nigeria. Babatunde (2018) did a study on microfinance banks, inequality, and poverty alleviation in Nigeria, using co-integration analysis to examine the long-run relationship between microfinance, inequality, and poverty alleviation. The study concludes that there is a long-run relationship between microfinance banks, inequality, and poverty alleviation in Nigeria.

Obayagbona (2018) studied empirically examines the impact of microfinance banks on poverty alleviation in Nigeria and the implications of such findings. The study covers a period of 25 years. The correlation coefficient and the ordinary least square (OLS) econometric technique were used for the empirical investigation. The results from the empirical analysis reveal that microfinance assets and loan-to-deposit ratio are major determinants of poverty alleviation in Nigeria; microfinance deposits and liquidity ratio failed to reach the 5 percent level of significance, indicating that they do not have any significant impact on poverty reduction in Nigeria.

On Bamidele (2020), who studied the relationship between microfinance banks, poverty alleviation, and economic development in Nigeria. The study adopted multiple regression analysis using the ordinary least squares method, and the study concluded that there is a negative relationship between microfinance banks, poverty alleviation, and economic growth in Nigeria. Finally, the work of Zabratella (2020) looks at the econometric analysis of the impact of microfinance banks

and poverty on economic growth in Nigeria. The study adopted a co-integration test and an error correction model, and the results revealed that there is a long-run equilibrium relationship between microfinance, poverty, and economic growth in Nigeria. The error correction model shows that there is a negative relationship between microfinance, poverty, and economic growth in Nigeria.

3. Methodology

3.1 Data Collection Procedure

The data for the study was collected from the Central Bank of Nigeria's Statistical Bulletin 2020. This implies that the study relied mainly on secondary data as incorporated in the CBN publication. Hence the paper, which uses ex post facto methodology based on available data from the apex bank in the country.

3.2 Model Specification

Base on the literature review this paper make use of Okafor, Ezeaku, and Ugwuegbe (2016), investigated the impact of microcredit on poverty reduction in Nigeria from the period of 1999 to 2016. However, this paper extend the number of years to 1980-2020 and a different estimation techniques. Therefore, we will derive a model to investigate microfinance bank as a predictor of poverty alleviation and economic growth in Nigeria. The model is stated below;

$$RGDP = F(PAL, AMFB, DMFB, LAMB, Ut) \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (1)$$

The model then becomes:

$$RGDP = \alpha o + \alpha 1PAL + \alpha 2AMFB + \alpha 3DMFB + \alpha 4LAMB + Ut \ldots (2)$$

Then take the log of both sides

$$LNRGDP = \alpha o + LN\alpha 1PAL + LN\alpha 2AMFB + LN\alpha 3DMFB + LN\alpha 4LAMB \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (3)$$

Where:

$GDP = Real\ Gross\ Domestic\ Product$ proxy for economic growth
$PAL = Poverty\ Alleviation$
$AMFB = Asset\ of\ Microfinance\ bank;$
$DMFB = Deposit\ of\ Microfinance\ Bank$
$LAMB = Loan\ and\ advances\ of\ microfinance\ Bank$
$Ut = Error\ term$

The study from above model has apriori expectation based on the expected signs of the coefficient of the explanatory variables such as are, $\alpha_{1<0;}$ α_2, α_3 and $\alpha_4 > 0$ respectively. That is, we expect the relationship between poverty alleviation and economic growth to be negative, while we also expect the relationship between the assets of microfinance banks,

their deposits and loans, and the advances of microfinance banks and economic growth to be positive.

4. Results and Discussion

Table 1: Descriptive Statistics

	LNPAL	LNAMFB	LNDMFB	LNLAMB
Mean	5.45318	6.873193	81.54987	22.56123
Median	5.88714	6.121958	80.45187	18.871
Maximum	8.55418	8.431193	331.055	79.39
Minimum	2.443189	2.217649	0.44	5.71
Std. Dev.	2.782154	4.561251	89.33891	0.04431
Skewness	0.059812	-0.44317	0.566137	1.128965
Kurtosis	1.541972	4.99286	4.003321	3.763419
Jarque-Bera	2.154894	2.52318	5.751329	29.54831
Probability	0.665193	0.78123	0.221085	0.000001
Observations	40	40	40	40

Source: Author's computation Using E-views 8

Table 1 displays the variables' descriptive characteristics. The PAL, AMFB, DMFB, and AMB have mean values of 5.45318, 6.873193, 81.54987, and 22.56123, respectively, and median values of 5.88714, 6.121958, 80.45187, and 18.871. The deposit of the microfinance bank (LNDMFB) has both the greatest and lowest values among the variables. The standard deviation indicates that the most volatile variable is the deposit of the microfinance bank (LNDMFB), followed by the asset of the microfinance bank (LNAMFB), the poverty alleviation (PAL), and the variable with the lowest standard deviation (LNLAMFB). The outcome also demonstrates that every variable is positively skewed towards normality with the exception of the asset of the microfinance bank, which is negatively skewed. The kurtosis, which measures the peakness of the distribution, reveals that the microfinance bank's assets, loans, and advances are leptokurtic, meaning that their distributions are peaked relative to the normal distribution; by contrast, poverty alleviation's distribution is platykurtic, meaning that it is flat relative to the normal distribution; and the microfinance bank's deposit is mesokurtic, meaning that the variables have a normal distribution, i.e., Last but not least, Jarque-Bera statistics show that all variables, with the exception of loans and advances from microfinance banks, were normally distributed at the 5% significant level.

Table 2: Unit Root Test Result

Variables	ADF-Statistic	Critical Value			Order of integration
		1%	5%	10%	
LNRGDP	-5.566238	-4.821704	-4.007821	-2.212108	1(2)
LNPAL	-6.485521	-4.102375	-4.084902	-2.731980	1(2)
LNAMFB	-6.109478	-5.590314	-3.842631	-3.310953	1(1)
LNDMFB	-7.510872	-3.519473	-2.510724	-2.194734	1(1)
LNLAMB	-6.195078	-3.218640	-2.824177	-2.417951	1(1)

Source: Author's Computation Using E-views 8

In table 2, the real GDP and poverty alleviation were found to be stationary at the second differencing, the assets of microfinance banks, their deposits, and the loans and advances they made were found to be non-stationary at level but stationary on the first differencing. This shows that there may be a long-term relationship between the variables. Thus, we can now proceed to the second stage of testing the long-run relationship among the chosen variables.

Table 3: Co-integration for Trace Statistic Test

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	Critical Value 0.05	Prob.**
None*	0.944307	143.6803	69.81889	0.0000
At most 1*	0.863092	85.92224	47.85613	0.0000
At most 2*	0.709958	46.15337	29.79707	0.0003
At most 3*	0.495495	21.39876	15.49471	0.0057
At most 4*	0.320067	7.715222	3.841466	0.0055
Trace test indicates 5 cointegrating eqn(s) at the 0.05 level *denotes rejection of the hypothesis at the 0.05 level **Mackinnon-Haug-Michelis (1999) p-values				
Unrestricted Cointegration Rank Test (Maximum Eigenvalue)				
None*	0.944307	57.75809	33.87687	0.0000
At most 1*	0.863092	39.76887	27.58434	0.0009
At most 2*	0.709958	24.75461	21.13162	0.0148
At most 3	0.495495	13.68354	14.26460	0.0616

At most 4*	0.320067	7.715222	3.841466	0.0055
Max-eigenvalue test indicates 3 cointegrating eqn(s) at the 0.05 level *denotes rejection of the hypothesis at the 0.05 level **Mackinnon-Haug-Michelis (1999) p-values				

Source: Author's Compilation Using E-views 8

Table 3 displays the results of the Johansen co-integration test, which demonstrates that the acceptance condition was met for three co-integrating equations (trace test) and five co-integrating equations (maximum eigenvalue test). The lack of co-integration among the variables is thus rejected in the case of the five- and three-co-integrating equations, respectively. The significance level of the test result is 5%, indicating the existence of a long-run equilibrium relationship between the dependent variable and the independent variables. In this way, the model for correcting errors is estimated.

Table 4: Result of Error Correction Model

Variable	**Co-efficient**	**Std. Error**	**T Statistic**	**Prob**
Constant	0.677823	0.587673	1.663889	0.667
LNPOR	-0.660318	0.112007	5.895332	0.844
LNAMFB	0.789251	0.935186	0.8439508	0.001
LNDMFB	0.821759	0.745184	1.102759	0.004
LNLAMB	-0.690341	0.100109	6.895893	0.557
R Squared	0.770189			
Adjusted R Squared	0.712375	F Statistics	22.673419	
D/W	2.112843			
ECM (-1)	-0.610836	0.748194	0.816413	0.001

Source: Author's Compilation Using E-views 8

Table 4 shows that there is a negative relationship between real gross domestic product and poverty alleviation, which means an increase in poverty alleviation will lead to a 66% decrease in real domestic product. There is a direct relationship between real gross domestic product and the assets of microfinance banks, which means an increase in the assets of these banks, will lead to a 79% increase in real gross

domestic product. The implication is that investment in the assets of microfinance banks will boost the economy. However, the result also shows that there is a direct relationship between real gross domestic product and deposit at a microfinance bank, which means that an increase in deposit at a microfinance bank will lead to an 82% increase in real gross domestic product. The implication is that as the deposits of microfinance banks increase, the economy gets better. The result above also shows that there is a negative relationship between real gross domestic product and the loans and advances of microfinance banks, which means an increase in loans and advances will lead to a 69% decrease in real domestic product.

The R-squared is 0.770189, which means about 77% of the variation in the dependent variable has been explained by the independent variables while the remaining 23% are not included in the model. The F statistics test the overall significance of the model, and from the result, the F calculated is 22.673419; using a 5% level of significance, we conclude that the overall model is statistically significant. There is no serial autocorrelation given that the Durbin Watson statistic (2) is within the acceptable bound. The probability value for parameter poverty alleviation is 0.844, so we conclude that the parameter poverty alleviation is not statistically significant and is not a good explanatory variable for real gross domestic product. The probability value for the parameter asset of the microfinance bank is 0.001, and we conclude that the parameter asset of the microfinance bank is statistically significant at the 5% level of significance and a good explanatory variable for real gross domestic product. The probability value for deposit at a microfinance bank is 0.004, and we conclude that the parameter deposit at a microfinance bank is statistically significant at the 5% level of significance but is not a good explanatory variable for real gross domestic product.

The probability value for parameter loans and advances by microfinance banks is 0.557; we therefore conclude that the parameter loans and advances by microfinance banks are not statistically significant at the 5% level of significance and are not a good explanation for real gross domestic product. The result of the error correction model indicates that the error correction term ECM (-1) is well specified and the diagnostic statistics are good. The ECM (-1) variable has the correct sign and is statistically significant. In particular, about 61% of the disequilibrium or deviation from the long run of economic growth in the previous period is corrected in the current year.

5. Conclusion and Recommendations

The paper examined microfinance banks as a predictor for poverty alleviation and economic growth in Nigeria. According to the literature and our findings, microfinance banks are the most important determinants of poverty alleviation in a country. This relationship has been thoroughly debated and acknowledged by many governments. As long as poverty and underdevelopment exist, microfinance banks will be crucial. Its ability to drive economic growth and alleviate poverty makes it a promising field for economic agents in a society. It's a policy instrument that may be adjusted and incorporated into short-, medium-, and long-term development programs, especially in poor nations. Microfinance banks as a cure for poverty alleviation and economic growth in Nigeria cannot be ignored.

However, the paper recommends that there should be a push for further research that uses contemporary quantitative methods to advance and enhance the operations of microfinance organizations. This will be especially helpful for policymakers and people who run microfinance banks to keep the lending programs going and lower the rate of poverty in Nigeria. The government should introduce rules that would allow microfinance loans to have an impact on poverty reduction through the small and medium-sized firm sector. More so, to lend money to small businesses, the Nigerian central bank should establish rules that require a certain amount of bank deposits to be set aside as loans, and the government needs to act right away to fix problems with building and maintaining infrastructure, like water, safe transportation, and energy, which always affect the standard of living in the country, and this will go a long way in alleviating poverty among the people. Finally, the money from microfinance should be used to make investments that make money for the banks and allow them to give loans and advances to small businesses in Nigeria.

References

Adekemi, A. A. (2020). Microfinance bank and economic development in Nigeria. *International Journal of Sustainable Development, 7*(2), 65-78,

Adefunmi, D. A. (2020). Relationship between poverty alleviation, inequality and economic development in Nigeria. *International Journal of Economics and Development, 5*(2), 67-82.

Akosile, A. I., & Ajayi, O. A. (2014). The impact of microfinance institutions on poverty reduction in Nigeria. *European Journal of Business and Management*, *6*(35), 1-8.

Asian Development Bank (2011). Microfinance: financial services for the poor, *Asian Development Bank*. Retrieved from http://www.adb.org/microfinance/.

Asian Development Bank (2004). Microfinance report on poverty alleviation in Asia. *Asian Development Bank Issues.*

Anduanbessa, D. A. (2009). *The trade-off theory of microfinance,* 1st Edition, Palgrave-Net Publisher.

Bakhtiari, S. (2011). Microfinance and poverty reduction: Some international evidence. *International Business & Economics Research Journal (IBER), 5*(12), 1-15.

Babatunde, A. D. (2018). Microfinance bank, inequality and poverty alleviation in Nigeria, A co-integration analysis. *Journal of Social Sciences, 8*(2), 100-118.

Bamidele, B. S. (2020). Relationship between microfinance bank, poverty reduction and economic growth in Nigeria. *JAJI International Journal of Economics*, 8(2), 104-118, Pent Publication.

Central Bank of Nigeria (2005). *Microfinance policy, regulatory and supervisory framework for Nigeria*. CBN Publication.

Central Bank of Nigeria (2012). *Revised regulatory and supervisory guidelines for microfinance banks (MFBs) in Nigeria*. CBN Publication.

Central Bank of Nigeria (2010). *Annual report and statement of account,* CBN, Abuja.

Central Bank of Nigeria (2013). *Annual report and statement of account,* CBN, Publication

Chambers, T. J. (1995). *Microfinance Bank and Poverty Reduction*, 1st Edition, Academic Review, Hill World Publication.

Cull, S., Demirgu-Ckunt, D., & Morduch, A. (2007). *The bottom billion: Why the poores countries are failing and what can be done about it*. Oxford and New York: Oxford University Press.

Dele, D. B. (2020). The measurement of the poverty and growth in Nigeria. *International Journal of Economic*, *4*(2), 48 –60.

Daniel, T. O. (2019). Can micro financing reduce poverty and improve growth in Nigeria? *African Journal of Economics and Finance, 8*(3), 85-100.

Egboro, E. M. (2015). Creation of microfinance banks in Nigeria: What is their main object? *British Journal of Economics, Management & Trade, 7*(3), 158-174.

Emelue, F. A. (2003). *Poverty alleviation in Africa*, 1st Edition, Indiana Publisher.

Friday, F. E. (2018). Impact of microfinance bank of economic growth in Nigeria, an error correction model and Johansen co-integration analysis. *Journal of Economics Studies, 9*(4), 127-142, New Publisher

Ganga, M. T. (2012). *Dimensions and dynamics of clientship in the microfinance sector, evidence from Sri Lanka*. (Master's thesis, University of Manchester, 1-328).

Hudon, J. J., & Traca, K. O. (2011). *The Profit-Incentives Theory of Microfinance*, 1st Edition, Houston Publisher.

Hossain, M. (1988). Credit for alleviation of rural poverty: the Grameen Bank in Bangladesh, Research reports 65, *International Food Policy Research Institute* (IFPRI).

Jhingan, M. L. (2005). *The economics of development and planning.* (Thirty Eighth Edition), India: Vrinda Publications (P) Ltd.

Jensen, J. L., & Meckling, D. A. (1976). *Principal-agent theory of microfinance*. 1st Edition, Incorporate Publisher.

Jegede, C. A., Kehinde, J. A., & Akinlabi, B. H. (2011). Impact of micro finance on poverty alleviation in Nigeria: An empirical investigation. *European Journal of Humanities and Social Sciences, 2*(1), 97-111.

Kamel, B. H. M., & Jalel-Eddine, B. R. (2015). Microfinance and poverty reduction: A review and synthesis of empirical evidence. *Procedia - Social and Behavioral Sciences,* 195, 705- 712.

Kasali, T. A., Ahmad, A. S., & Lim, H. E. (2015). The role of microfinance in poverty Alleviation, Empirical evidence from South-West Nigeria. *Asian Social Science, 11*(21), 183-198.

Luigi, E. E., & Sorin, F. A. (2009). *The pecking order theory of microfinance*, 1st Edition, Permet Publisher.

Mix, D. (2010). *Microfinance information exchange*. Retrieved from http://www.themix.org.

Nawaz, D. G. (2010). *The agency theory of microfinance*, 1st Edition, Palgrave Publisher.

Nyong, O. O. (1995). *The power theory of poverty*, 2nd Edition, Indiana Publisher.

Obayagbona, J. (2018). Microfinance bank and poverty alleviation in Nigeria: An impact assessment, *Amity Journal of Finance 3*(2), 1-12.

Oladejo, M. (2013). Evaluation of the Nigerian microfinance banks credit administration on small and medium scale enterprises operations. *International Review of Management and Business Research, 2*(2), 505-517.

Okezie, A. I., Bankoli, B., & Ebomuche, N. C. (2013). The impact of Nigerian microfinance banks on poverty reduction, Imo State Experience. *Mediterranean Journal of Social Sciences, 4*(6), 97-114.

Osamwonyi, I. O., & Obayagbona, J. (2012). The role of microfinance banking in the Development of the Nigerian economy. *Finance and Banking Review (FBR), 6*(1 & 2), 46–65.

Okafor, I. G., Ezeaku, H. C. & Ugwuegbe S. (2016). Microcredit and poverty reduction: A case of Nigeria. *International Journal of Multidisciplinary Research and Information, 1(1),* 13-19.

Olusanya, S. O., Oyebo, A. O. & Ohadebere, E. C. (2012). Determinants of lending behaviour of commercial banks: Evidence from Nigeria, a co-integration analysis. *IOSR Journal of Humanities And Social Science (JHSS) 5(5),* 71-80 IOSR Publication.

Roadman, I. (2012). Poverty alleviation and economic development in African. *African Journal of Economic Development*, 7(4), 88-102.

Seibel, H. D. (2001). Mainstreaming informal financial institutions, United Nations poverty line Definition, *Journal of Developmental Entrepreneurship, 6(1),* 83-95.

Sen, R. T. (1999). Perception of SME growth constraints in Nigeria, *Journal of Small Business Management*, *4*(2), 58-65.

Solow, R. (1956). Technical change and the aggregate production function. *Review of Economics and Statistics*, 39, 312-320.

Ugochukwu, M. N., & Onochie, G. (2017). Impact of micro-credit on poverty reduction in Nigeria. *Journal of Arts, Management and Social Sciences (OJAMSS), 2(2),* 149–163.

Vanrose, S. V., & D'espallier, H. D. (2013). *The Profit-Incentives Theory*, 1st Edition, Pent-Rose Publisher.

World Bank. (2000). *Microfinance Report in Africa*. World Bank Publication.

World Bank. (2012). *Data on microfinance bank in Africa*. World Bank Publication.

World Bank. (2001). *Microfinance and poverty report*. World Bank Publication.

Zabratella, F. O. (2020). The econometric analysis of the impact of microfinance banks and poverty on economic growth in Nigeria, *International Journal of Economics and Finance*, *11*(5), 100-118.

Zhattau, S. B. (2013). *Introduction to Economic and Economic Development, A Broader Perspective,* 1st Edition, Yorker Publisher.