Review Article

The Effect of Microfinancing on Economic Development in Nigeria (1990-2018)

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Abstract - The study examined the effect of microfinancing on economic development in Nigeria from 1990-2018. Three models were specified using three variables such as GDP per capita (GDPPC), Gross Domestic Product (GDP), and Human Development Index (HDI) as proxies for economic development; microfinance bank loans to SMEs (MFLS), total microfinance banks loans (MFTL), commercial bank loans to SMEs (CBCS) and total commercial bank loans to rural communities(CBCR) were proxies for the independent variable. Prime lending rate (PLR) is used asa control variable. Data was sourced from various CBN Statistical Bulletin and employed ARDL as an estimation technique. It was found that series are integrated into different orders. However, MBLS, CBCR, and SMEs impacted negatively on GDPPC, while MFTL and PLR impacted positively on GDPPC. On GDP, it was found that CBCS, and PLR have negative effects on GDP while CBCR and MFTL have positive effects on GDP. It was further revealed that CBCS has a negative impact on HDI, while all other variables impacted positively on HDI. On the models, microfinancing hasa significant impact on GDPPC, and GDP insignificantly affected on HDI. In conclusion, microfinancing has a heterogeneous effect on economic development. It recommended that commercial banks should intermediate to both the private sector and SMEs.

Keywords - Microfinancing,economicdevelopment, small and medium scale enterprises, economic growth, deposit money banks, Nigeria.

I. INTRODUCTION

The place of finance as one of the determinants of economic development cannot be overemphasized. Finance serves as lubricants for any business activities, be it a sole proprietorship, partnership, corporate, or for the running of an economy. Finance is funds used in running a business, and it can be short, medium, and long term in nature. Short-term funds are used to finance short-term business activities, and their repayment is within one year. It can be for the medium-term in which its repayment is within one year to five years while long-term funds are funds used to finance long-term projects, and its repayment is for a more extended period, that is 5years and above. According to Ayodeji (2011), finance is the lifeblood, a foundation, and bedrock of any organization; hence, for any business unit to be successful, there must be funds to finance it.

Likewise, finance in the form of microfinance plays a very vital role in alleviating poverty among people (Ahmeti, 2014). As he said, finance is considered as a tool for fighting poverty in developing countries and also serves as a tool for post-con-conflict reconciliation. This means that a country with a massive record of poverty or a country that is just coming out from war needs finance to bring back into life business activities and increase the standard of living of people. Mostly, this type of finance is called microfinance, and it can be sourced from any deposit money bank within the economy.

In many developing countries, the level of socio-economic problems is so enormous, ranging from poverty, unemployment, lack of health care, lack of good transport system, lack of good water system, etc. As a result, many leave in abject poverty with no regular income. Those who have the will to engage in trade or any business activities are constrained by a lack of funds. In many cases, approaching banks to seek for loans is difficult because of the conditions expected to be fulfilled before accessing the funds. This was supported by Apere (2015) that, the inability of the traditional financial institutions to provide financial needs or credits to the poor led to the emergence and establishment of microfinance banks.

Microfinance banks have the mandate to make available short-term funds in the form of microfinancing to people in the rural area and the poor in an urban area, by bringing to their doorsteps, bank financial services that they were unable to enjoy in conventional banks. Hence, channeling the funds to the less privileged would enhance their ability to generate income, increase their living standard and the level of their

productivity (Cull & Morduch, 2017). In recent times, there have been many microfinancing programs instituted by the government and NGOs to complement the activities of microfinance banks. In fact, conventional banks like commercial banks have also relaxed their lending conditions to businesses such as small and medium scale enterprises and farmers with the hope of enhancing their level of productivity. This is to say that; microfinancing is not limited to the microfinance bank alone. In support of this, Ayodele (2014) says that micro-financing is meant to improve the productive capacity of the rural and urban poor so as to enhance their economic standing, which alleviates the level of poverty and enhances economic growth and development

Economic development evidences how healthy a nation is, most especially from the human development aspect and how the economy progresses (Haller, 2012). This means an improvement in human conditions and adequate distribution of national resources could bring about economic development. Hence, one of the tools of achieving this is to make funds available in an economy so as to accelerate growth and economic development. There are controversies on the measurements of economic development among economists. Some supported the human development index, while some supported the use of per capita income, others argued for gross domestic product. However, the effect of microfinancing on economic development is very limited in literature as many studies concentrated on economic growth Ademola&Arogunde (, 2014), Apere (2016), Sultan & Masih (2016), Sultan (2018), except Lopata and Tchikpy (2017) from an emerging country. Hence, this study examined the impact of microfinancing on economic development using all these measurements, that is, the human development index, GDP per capita, and GDP; this has created a gap in the literature.

II. LITERATURE REVIEW

A. Conceptual Review

Microfinancing sometimes is is-conceptualized to be financing from microfinance banks alone. Not only that, but it has also been misconstrued to be related to microcredit. This is a wrong assumption found in the extant literature as this type of finance can be provided by the government, NGO's and all deposit money banks such as commercial banks, microfinance banks, and merchant banks. More so, it is not only limited to credit as microcredit is a component part of microfinancing. This was supported by Sinha (1998), as cited in Khan and Karim (2016), who also argued that, microcredit refers to small loans whereas, microfinance has microcredit as one of its components. They said microfinance includes loans and other non-credit financial services such as savings insurance, pensions, and payment services.

Also, from Sultan and Masir's (2016) point of view, microfinance was defined as financial institutions that provide financial services to the poor, unbanked population.

The study argued that most of those that access this type of finance are those who have no account with formal financial institutions. As such were denied access to any financial services; however, microfinance institutions make credit and other non-financial services accessible to them. This definition is a bit confusing as microfinance institutions are also formal institutions legislated and established under the law. Also, the notion that microfinance is majorly for the unbanked population is far from the truth as many small-scale traders have an account with the formal institutions.

Sudan (2018) defined microfinance as the system that supplies loans, savings, and other essential financial services to the deprived sector. The study explained the vital financial services to mean working capital loans, consumer credit, savings, pensions, insurance, and money transfer services. However, the deprived sector here is those individuals who have no access to credit from the commercial banks, though, not because they don't have a bank account but because they couldn't meet up with the stringent loan conditions or criteria as stipulated by banks. It was also supported by Kimotha (2005), as cited in Sudan (2018) that, microfinance is the provision of minimal loans to the poor to help them in their business activities and also to expand the existing ones. The poor, mentioned here, were elaborated to mean, those who lacked access to loans to improve their business activities.

According to Luyirika (2010), microfinance is meant to be a form of credit facility given to poor people to either start a business or expand the existing ones. It was also stated that these funds or loans are not only targeted to run business activities but can also be used to pay the school fee and get health care. This assertion pointed out that, these financial services are targeted at the poor people who have good intention to engage in trade of any kind or towards their livelihood by having a good standard of living. It was further explained by Christen, Rosenberg, and Jayadeva (2004) explain the child microfinance of providing financial services and customers of basic necessities, including independent consumers and travelers, who traditionally deal with banking and related services. All traditional banking services are proportionate to commercial banking, deposit banking, and banking mayors who establish pre-amplification policies and conditions for market tests and customer experiments together with the necessary requirements for questions and answers.

From the definitions of some studies identified above, it could be summarized, that the term microfinancing or microfinance encompasses an array of financial services such as credit, investment, insurance, savings provided by the designated institutions to target individuals such as households, traders, self-employed and those who are poor and lack access to enjoy all these services from traditional financial institutions. The reason for uneasy access to traditional financial institutions is because of the stringent conditions attached such as, collateral security, a stream of permanent income, the opening of a current account, number

of months that the account was opened, cost of funds which may be higher or equal to the amount borrowed at the end the tenor of the loans and many more. As a result of this, the government, in her wisdom, identified these challenges. It came up with the establishment of microfinance banks to bring banking services to the doorsteps of the rural dwellers, the poor, the self-employed, and many who, for one reason or the other, lack access to traditional financial institutions. Therefore, the establishment of a microfinance bank in 2004 helped to bring financial services to the doorsteps of the poor; as such, it is regarded as a grassroots bank. The establishment of this bank has brought prosperity to the doors of many poor traders and self-employed individuals, if not in total but with a significant impact. According to the Central Bank of Nigeria (2005), the establishment of microfinance institutions was to enhance the access to financial services by the micro-entrepreneurs and low-income households who require facilities to expand and modernize operations and consequently contribute to economic growth and development.

Microfinance institution comprises of all those who make financial services available to the targeted people, and they can be categorized as regulated and unregulated institutions. The regulated institutions are the microfinance banks, commercial banks, merchant banks, while unregulated are cooperatives' society, thrift society, credit unions, non-governmental organizations, and the local money collectors. Also, the government, through its developmental functions, formulated and implemented different programs that can enable the targeted people to access soft loans and investible funds to expand their businesses (Apere, 2016)

Hence, microfinance institutions, in one way or the other, contributed to the economic development as it helped in reducing the rate of poverty among the rural dwellers and creating jobs through its financial services to many; it has also helped the economic activities to boom as a result of the credit facilities, it increases the productivity and indirectly has enhanced the standard of living of many individuals. Microfinancing can bring about economic development through the innovation of the entrepreneurs as they have been regarded as the agent of growth and economic development. Therefore, the right channeling of these funds to the micro, small and medium enterprises in the right quantity can help the nation achieve its economic objectives. Economic development can be defined as a general improvement in all the economic sectors and most especially the overall wellbeing of the citizen. According to Dudley (1969), economic development occurs when poverty, unemployment, and inequality are reduced while income per capita increases. This definition pointed out that, a nation where poverty, unemployment, and inequity are reduced to the barest minimum could experience economic development, and it evidences itself when income per capita increases.

From another point of view, Haller (2012) defined economic development as the process that generates economic and social quantitative, particularly, qualitative changes which cause the national economy to cumulatively and durably increase its real domestic product. It is different from economic growth, which is limited in senses and could be defined as the process of increasing the sizes of the national economies, the macroeconomic indicators, especially the GDP per capita, in ascending order but not necessarily linear direction, with a positive effect on the economic, social sector. This asserts that development is broader and show total improvement in a quantitative and qualitative sense of it on the economy and the standard of living of people, but economic growth, on the other hand, only shows an increase in the total production in the economy. Therefore, it can be submitted that development evidence on how economic growth impacted on the society by increasing the standard of living of people.

To better understand the term economic development, Kindleberger and Bruce (1958) called it "improvement of material well-being, especially for low-income people, eradication of mass poverty with its correlation with illiteracy, disease, and premature death, changes in the composition of inputs and products which generally include changes in the underlying production structure from agricultural activities to industrial activities, the organization of the economy so that productive employment is general among the working-age population rather than the situation of a privileged minority and the corresponding greater participation of large-scale groups in management decision-making processes, economic and non-economic, in which they should shift their well-being ". This definition provides a detailed explanation of economic development.It explains that economic development entails a total improvement in economic wellbeing, which could propel economic growth and a good standard of living for the populace. Increase in economic growth is not equivalent to economic development because, several countries have records of economic growth without such a country recording development in the real sector, social and welfare of people.

Economic development from the point of view of Drewnewski (1966) is defined in terms of economic and social welfare, that is, in the standard of living of people, economic development is supportive, and it involves increase per capita income and creation of new opportunities in education, health care, employment sectors. This means developers would be limited insignificant if it does not lead to favorable economic welfare; therefore, for any economy to witness development, growth per capita income must increase.

Besides, Singer and Ansari (1977) defined economic development in terms of the decrease of poverty in an economy. This implies that, when poverty is reduced, and it

is accompanied by economic growth, then, economic development can be said to be achieved. A situation whereby population increases and food consumption is low, such a country cannot develop rather may remain stagnant or retarded. Since economic development has been defined both in qualitative and quantitative terms, microfinance can play a good role in its achievement. When finance is channeled to the productive sector, it will generate economic growth and development. Microfinance from either the regulated or unregulated sources have a direct impact on economic development as poverty; unemployment would be reduced and consequently increase productivity needed for economic growth.

B. Theoretical Framework

The underpinning theory of this study is Schumpeter's (1911) on economic development. The theory postulated that a well-developed financial sector or system is a catalyze of innovation and economic growth through the provision of financial services and resources to those entrepreneurs who have the highest probability of promoting successful innovative products and processes. Here Schumpeter envisaged the importance of finance as a veritable tool of development when the financial system (the financial institutions, financial products, financial market, financial instruments and assets, regulatory authorities, and statutory enactment) are developed. It means that when the financial system is developed, more financial services would be available to the entrepreneurs to improve their business activities. Hence, microfinancing which can be viewed as varieties of financial services, either from government, commercial banks, or microfinance banks to the entrepreneurs, can have a long-run effect in reducing poverty, unemployment, over dependency, thereby helping to bring about economic growth and development. This was also the argument of McKinnon and Shaw (1973). Both were of the view that financial repression would retard growth hence advocated for financial liberalization where market forces would determine the rate of interest, which can help in the growth of savings and investment needed for economic growth and development.

C. Empirical Review

Boateng and Agyei (2013) evaluated microfinance in Ghana by focusing on its development, success factors, and challenges. Primary data were collected through questionnaires from the 12 selected microfinance institutes, and their respective financial manager, and data were analyzed using descriptive statistics. Findings revealed that micro finances pond to the questionnaires. The study showed that the development of microfinance in the past five years has been with the sole purpose of, providing income to low-income households who operate their businesses. It further revealed that the success factors are the provision of services that were appropriate and consistent with customers'

situation and needs, character-based lending, frequent visit of credit officers to customers.

Nasim (2014) studied the socioeconomic impact of microfinance in Pakistan. The study assessed how microfinance was able to affect borrowers. Two types of borrowers were found in the study, the poor non-borrower, and the poor borrower. The data collected by the Pakistan Poverty Alleviation Fund were used for the analysis. It was revealed that 30% of the borrowers were poor, while 70% were not. However, the impact on the state of poverty has been marginal. In addition, the study found that poor non-borrowers performed better in terms of trading on most of their assets than poor borrowers, an indication that microfinance does not have a major impact on the socio-economic development of borrowers in Pakistan.

Ademola and Arogunde (2014) studied the protection of microfinance on economic growth in Nigeria. The domestic product was used as a dependent variable, the activities of the microfinance banks, the deposit responsibilities of the microfinance banks, and the loans and advances of the microfinance banks. He gave me they were purchased from the CBN Statistical Bulletin and were analyzed through regression. This is the contract that microfinance bank assets and liabilities have a negligible impact on economic growth, while bank loans and advances on microfinance have a significant impact on economic growth. In total, banking microfinance activities have had a significant impact on Nigeria's economic growth.

Apere (2016), in the study, examined the impatience of the microfinance bank with the Nigerian economic company over a period of time from 1992 to 2013. The independent variant was presented by the gross domestic product, while the microfinance bank loans, investments, and inflation have been used as alternative representatives.
Secondary data were sourced from the CBN statistical Bulletin of various editions and was analyzed using the co-integration test and error correction model. Findings showed that there is an existence of a long-run relationship between microfinance proxies and economic growth. It further revealed that microfinance bank loans and investment significantly and positively impacted on economic growth in Nigeria.

Khan and Karim(2016), in their study, examined the impact of microfinance activities on the economic development of Bangladesh. The study is a position paper but with the trend analysis of the economic development indicators and the finances revealed by the borrowers, mostly the self-employed individuals from the microfinance institution. Their status before and after the borrowing was also evaluated. The study found that microfinance is playing a significant role in the development of Bangladesh by providing financial assistance to lower-income people.

Hence, this has impacted their lives, and it has brought down poverty levels mostly from a rural areas and has also increased their household income.

Sultan and Masih (2016) tested the theoretical relationship between microfinance and growth, and it uses a period from 1983 to 2013. The model was specified using real GDP per capita as the dependent variable, while microfinance loans were used as the independent variable. Controlvariablesused in the study are real interest rate, inflation rate, and exchange rate. Secondary data were sourced from the World Bank Database, IMF- World economic outlook, and IMF international financial statistics, while the analysis was done using an autoregressive distributed lag. It was found that there is a significant impact of microfinance on domestic growth. It was further found that a bi-directional relationship exists between microfinance and growth.

Lopata and Tchikpv (2017) also investigated the causal relationship between microfinance and economic development, covering a period from 1995 to 2012. The study specified its model using microfinance institution performance as the dependent variable while poverty headcount ratio, Gini coefficient. GDP growth, GNP per capita, gross capital formation, labor participation rate, and literacy rate. Financial institution-specific data from about 952 microfinance from 101 countries from microfinance exchange market database and analyzed using vector autoregressive. Findings revealed a bidirectional causal interaction between both MFIs' social and financial performance and economic development.

Murad and Idewele(2017) examined the impact of microfinance institutions on economic growth in Nigeria over a temporal period 192 to 2012. From the study, the dependent variable was proxied by changes in per capita consumption, while the independent variable was proxied by microfinance loans, microfinance investment, microfinance deposit, inflation rate, and agricultural production. Secondary data were sourced from CBN Statistical Bulletins, and it was analyzed using the multiple regression method. Findings revealed that series are co-integrated, and the error correction revealed that, the speed of adjustment is rightly signed and significant. It was further revealed that all variables had a positive impact on economic growth. However, microfinance loans, microfinance investment, and inflation have an insignificant impact on economic growth. Overall, microfinance has proven to have a significant impact on economic performance.

Joseph, Innocent, and Kenneth (2017) studied the role of microfinance banks in job creation at the base in the local government area of Karu, in the state of Nassarawa, Nigeria. The primary data were obtained from 100 customers of the microfinance banks selected through a structured questionnaire. The data were analyzed using descriptive statistics, such as simple percentages and frequency. Among other things, job creation was found to be the biggest effect of MFI financial intermediation on the bases. The lack of entrepreneurial skills has also proven to be the main problem faced by MFIs in the sector of financial intermediation for the creation of underlying jobs.

Apalia (2017) also investigated the role of microfinance institutions in the Kenyan economy using Kisii Town, Nyanza Nigeria, as a case study. The survey research design was used while primary and secondary data were collected from operational microfinance financial institutions registered in Kisii and through questionnaires administered to the financial managers of the selected microfinance institutions. In the study, profit after tax was used as the dependent variable while interest income, interest expense, provision for bad and doubtful debts and deposits and other bank balances, loans and advances, and shareholders' funds were used as proxies for the independent variable. Data sourced were analyzed using correlations and regression analysis. Findings showed that profit before tax depends on some factors such as interest income, interest expense. Shareholders' funds, loans, and advances.

Opue, Anagbogu, and Udousoro (2018) evaluated the role of microfinance banks in the socio-economic development of rural communities in cross river states. The studies employed two types of data which are primary and secondary. Primary data were sourced from the sample of 840 respondents from fifteen communities through the use of a questionnaire, while secondary data were collected from CBN Statistical Bulletins. Three models were specified and concerning credit supply by CBN, credit demand, and socio-economic impact of microfinance. The analysis was done using regression analysis. It was found that the CBN credit policy has a significant effect on the supply of credit to institutional borrowers. Such as micro-finance banks and that micro-finance bank operations (roles) have no significant effect on credit demand by small-scale business enterprises. Also, the roles of microfinance banks have no significant effect on the socio-economic development of rural communities in cross river states.

Sudan (2018) examined the impact of microfinance institutions on the economic growth of Nepal between 2012 to 2017. The dependent variable was proxied by gross domestic product and GDP per capita. In contrast, the independent variable was proxied by a total number of staff, a total number of members, microenterprises credit, total assets, total loan, total deposit, inflation, and broad money supply. Secondary data were sourced from the Bank Supervision Report, Nepal Rastra Quarterly Economic Bulletin, and Economic Survey 2016/17 published by the Ministry of Finance, while data sourced were analyzed by multiple regression. It was found that the total number of staff, the total number of members, the ratio of

microenterprises loan, total assets, total loan, total deposit, and broad money supply growth are positively related to economic growth.

III. METHODOLOGY

The type of data, sources of data, variables, and method of data are explained. The study employed secondary data, which covers the period from 1990 to 2018 from CBN Statistical Bulletins and CBN Annual Reports of various editions. In this study, three models were formulated, of which gross domestic product per capita (GDPPC), gross domestic product (GDP), and human development index (HDI) were used as the dependent variables for the three models. In contrast, microfinancing to SMEs, total microfinance loans, commercial banks loans to SMEs, and commercial bank loans to rural communities were used as the independent variable. However, the prime lending rate was used as a control variable. Data were therefore analyzed using the Autoregressive distributed lag method

A. Model Specification

Model 1

The model for this study is stated in a functional form as:

$$GDPPC = f(MFLS, MFTL, CBCS, CBCR, PLR)\text{-------eq1}$$

This can also be linearized as follows

$$GDPPC = \beta o + \beta_1 MFLS + \beta_2 MFBTL + \beta_3 CBCS + \beta_4 CBCR$$

$$+\beta_5 PLR + U\text{--eq2}$$

Model II

$$GDP = f(MFLS, MFTL, CBCS, CBCR, PLR)\text{-----------eq3}$$

This can also be linearized as follows

$$GDP = \beta o + \beta_1 MFLS + \beta_2 MFBTL + \beta_3 CBCS + \beta_4 CBCR$$

$$+\beta_5 PLR + U\text{ -----------eq4}$$

Model III

$$HDI = f(MFLS, MFTL, CBCS, CBCR, PLR)\text{--------------eq5}$$

This can also be linearized as follows

$$GDPPC = \beta_1 MFLS + \beta_2 MFBTL + \beta_3 CBCS + \beta_4 CBCR$$

$$+\beta_5 PLR + U\text{ --eq6}$$

By specifying the model in line with Auto regressive distributed lag method, the model is stated as

n   n

$$y = \beta o + \sum_{t=I} \beta i\, \Delta InY_{t-1} + \sum_{t=1} \beta_2 \Delta InMF_{t-1} + \beta_3 InY + \beta_4 InMF$$

$$+U_t\text{--eq7}$$

where: y= dependent variables of all the models, MF= Micro financing variables, βo = constant tern, U= error terms

IV. ANALYSIS AND INTERPRETATION

A. Augmented Dickey-Fuller (ADF) Stationary Test

The first step was to carry out a stationarity test on the variables employed; hence, the study used standard Augmented Dickey-Fuller (ADF) unit root to check the order of integration of the variables. The series was first transformed into logarithms before the testing. The results obtained are reported in Table.1. It was observed that at l(0), all the variables except the prime lending rate (PLR) were non-stationary, but when tested at first difference l(1), they all became stationary. Therefore, the null hypothesis, which says that there is a presence of unit root, is rejected, and the alternate, which means that variables are free from the unit root, is accepted. Hence, variables are integrated indifference order.

Table 1. Summary of Augmented Dickey Fuller (ADF) Stationary Test

Variable	ADF Statistic	At level	At first difference	Inference
LGDPPC	Test Prob	-1.2069 0.6557	-6.5263 0.0000	I(1)
LGDP	Test Prob	-1.5903 0.4731	-4.6224 0.0012	I(1)
HDI	Test Prob	-1.6590 0.4394	-4.6987 0.0014	I(1)
LMFTL	Test Prob	-1.9661 0.2989	-6.4454 0.0000	I(1)
LCBCR	Test Prob	-2.9446 0.0539	-14.9708 0.0000	I(1)
LMFLS	Test Prob	-3.5554 0.0147	-7.2415 0.0000	I(1)
LCBCS	Test Prob	-1.6443 0.4455	-6.5131 0.0000	I(1)
PLR	Test Prob	-5.9926 0.0000	-	I(0)

Source: Author Computation from Eviews, 9

B. ARDL Co-integration

Arising from the unit root test, which indicated that, series are integrated of a different order, it is necessary to examine the co-integration level of the variable before the primary estimation. Hence, the study tested using an autoregressive bound test. The result of the test is presented in Table 2. A cursory look at the result revealed that F statistics of all the models are higher than the lower limit of 2,2.62 and upper limit of 3.79. This implies that there exists a long-run relationship between microfinancing and all other economic development proxies.

Table 2. Summary of ARDL Bound test

Dependent Variable	F-STAT	LB	UB
LGDPPC	17.1174	2.62	3.79
LGDP	7.5765	2.62	3.79
LHDI	6.867	2.62	3.79

Source: Author Computation from Eviews, 9

The estimation between microfinancing and economic development using GDPPC was done using an autoregressive distributed lag. The result is presented in Table 1. Using lag 2, the results revealed that DGDPPC has a significant negative impact on its innovation. It further told that CBCS of -0.1849, CBCR of –0.0097, and MFLS of -0.2793 have a negative impact on GDPPC while MFTL of 0.1424 and PLR of 0.0194 positively impacted GDPPC. Their significant level at 5% showed that CBCS, MFTL, and PLR exert considerable impact on economic development. The implication of this is that a unit increase in CBCS, CBCR, and MFLS would bring about an 18.49%, 9%, and 27.93% reduction in economic development. In comparison, a unit increase in MFTL and PLR would bring approximately 14.24% and 1.94% increase in economic development.

The coefficient of determination (R^2) of 0.8854 implies that 88.54% variation in the dependent variable, which is proxy by GDP per capita (DLGDPPC), is explained or accounted for by common effect from explanatory variables. In comparison, 11.46% is accounted for by the variables not captured in the model. The adjusted R^2 of 73.66% confirms this. The F-statistic of 5.9479 is higher than the tabulated F-statistics of 2.59, and the P-value of 0.003 is statistically significant at 5%. This implies that the model is good, showing that variables included in the model are inducers of economic development. The serial correlation was tested by Durbin Watson, and it was found that D.W of 1.98 is very close to the benchmark of 2, which implies that series are not correlated. Error correction mechanism shows the speed of adjustment of short-run discrepancies, and it was revealed that Ecm(-1) of -2.038 is rightly signed and significant. Implying that the rate of change is instant. From the analysis, it can be submitted that microfinancing has a considerable impact on economic development in Nigeria

Table 3. Summary of ARDL Estimate Dependent Variable: LGDPPC

Variable	Coefficient	Std. Error	t Statistic	Prob.*
DLGDPPC(-1)	-0.681306	0.13657	-4.9887	0.0005
DLGDPPC(-2)	-0.403833	0.138727	-2.91099	0.0155
DLCBCS	-0.080789	0.054857	-1.47271	0.1716
DLCBCS(-1)	-0.184923	0.049356	-3.74672	0.0038
DLCBCR	-0.009702	0.012326	-0.78709	0.4495
DLMFL	0.123507	0.043614	2.831802	0.0178
DLMFL(-1)	0.142449	0.044636	3.191323	0.0096
DLMFLS	0.081786	0.046781	1.74827	0.111
DLMFLS(-1)	0.284217	0.126032	2.255123	0.0478
DLMFLS(-2)	-0.279348	0.163032	-1.71345	0.1174
PLR	0.008503	0.007568	1.123567	0.2874
PLR(-1)	-0.005216	0.0092	-0.56697	0.5832
PLR(-2)	0.019416	0.007108	2.731709	0.0211
C	-0.425172	0.182266	-2.3327	0.0419
Ecm(-1)	-2.0851	0.236166	-8.829116	0.0000
R^2=0.8854	Adj-R^2=0.736	F-Stat=5.9	Prob=0.0039	D.W=1.9

Source: Authors Computations using Eviews, 9.0

In the same manner, the estimation between microfinancing and economic development using LGDP using autoregressive distributed lag at lag 2 is reported in Table 4 below. It was found that LGDP of 0.1465 has a positive and insignificant impact on its innovation. The results also found that LCBCS of -0.3135, LMFLS of -0.0094, and PLR of -0.029 have a negative impact on LGDP while CBCR of 0.0002 and MFTL of 0.2050 have a positive impact on GDP. On checking the significance of each the variable, it was found that LCBCS and LMFTL significantly impacted on GDP.

Coefficient of determination R2 of 0.8972 indicates that 89.72% variation independent variable is explained by the joint effect of the explanatory variable. In comparison, the fraction of 10.28% accounted for other variables not included in the model; the adjusted R2 of 76.12% also confirmed that explanatory variables are an inducer of the dependent variable. Overall significance of the model using Statistics revealed that the calculated F stat of 6.642 is higher than the tabulated f-stat of 2.59 and the p-value of 0.0025 indicates that the whole model is significant. The speed of adjustment represented by Ecm(-1) is rightly signed, and significant, which implies that about 54.71% of discrepancies would be corrected annually and incorporated into the long run. There is inconclusive autocorrelation in respect to the result of Durbin Watson of 2.38 when compared with (4-d= 4-2.38 =1.62) with the lower bound of 0.979 and upper bound of 1.873. hence, from the analysis, the study submitted that microfinancing has a significant effect on economic development proxied by GDP.

Table 4. Summary of ARDL Estimate Dependent Variable: LGDP

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
DLGDP(-1)	0.306347	0.148168	2.06757	0.0656
DLGDP(-2)	0.146545	0.13197	1.110444	0.2928
DLCBCS	-0.017903	0.054895	-0.32613	0.7511
DLCBCS(-1)	0.017659	0.057441	0.307432	0.7648
DLCBCS(-2)	-0.313596	0.077342	-4.05466	0.0023
DLCBCR	0.000215	0.018576	0.011597	0.991
DLMFL	0.050159	0.064648	0.775871	0.4558
DLMFL(-1)	0.127541	0.071117	1.793384	0.1032
DLMFL(-2)	0.205	0.047842	4.28494	0.0016
DLMFLS	-0.009472	0.061764	-0.15335	0.8812
PLR	0.011624	0.011512	1.009761	0.3364
PLR(-1)	0.037138	0.013116	2.831589	0.0178
PLR(-2)	-0.029677	0.013687	-2.16823	0.0553
C	-0.354618	0.290641	-1.22012	0.2504
Ecm(-1)	-0.5471	0.208027	-2.6299	0.025
R^2=0.8962	Adj-R^2=0.7612	F-Stat=6.6425	Prob=0.0025	D.W=2.2832

Source: Authors Computations using Eviews, 9.0

Human development index was also used as a proxy for economic development, and the estimation was also dine using autoregressive distributed lag at lag 2. It was found that, DHDI has a negative and insignificant impact on its own innovation. Individual coefficient also revealed that, only CBCS of -0.06186 has a negative and significant impact on economic development while other variables have a positive impact on the human development index. Checking their significant level, it was found that CBCS and CBCR have a significant impact on HDI. The implication of this is that, a unit increase in CBCS would reduce human development while a unit increase in MFTL, MFLS, CBCR, and PLR would bring about a 3.13%, 9.8%, 0.34%, and 0.4% increase in the human development index. Coefficient of determination found that, variation of about 71.58% is accounted for the joint effect of the explanatory variables while 28.42 % is accounted for by other variables not included in the model, and this is confirmed by the adjusted R^2 of 50.58%, which indicates a good fit and that explanatory variables are inducers of economic development. F-statistic of 2.30 is lesser than 2.59, which indicates an insignificant of the model. The speed of adjustment represented by Ecm (-1) is rightly signed, and significant which implies that about 131% of discrepancies would be corrected annually and incorporated into the long run. Durbin Watson of 1.83 implies that series are free from autocorrelation. Hence, from the analysis, it can be submitted that, microfinancing has no significant impact on human development in Nigeria.

Table 5. Summary of ARDL Estimate Dependent Variable: HDI

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
DHDI(-1)	-0.317131	0.191906	-1.65254	0.1267
DLCBCS	0.00147	0.014834	0.09906	0.9229
DLCBCS(-1)	-0.062125	0.017451	-3.56003	0.0045
DLCBCS(-2)	-0.061866	0.015914	-3.88751	0.0025
DLCBCR	0.003711	0.004028	0.921093	0.3768
DLCBCR(-1)	0.014788	0.005888	2.511414	0.0289
DLMFL	-0.028885	0.015925	-1.81379	0.0971
DLMFLS	0.031312	0.01513	2.069494	0.0628
DLMFLS(-1)	-0.180035	0.052754	-3.41275	0.0058
DLMFLS(-2)	0.098251	0.060831	1.61514	0.1346
PLR	0.004948	0.002482	1.99346	0.0716
PLR(-1)	0.004965	0.0027399	1.812659	0.0972
C	-0.166476	0.058992	-2.82201	0.0166
Ecm(-1)	-1.3171	0.191906	-6.863427	0.0000
R^2=0.7158	Adj-R^2=0.4058	F-Stat=2.3	Prob=0.0882	D.W=1.839

Source: Authors Computations using Eviews, 9.0

V. DISCUSSION OF FINDINGS

The study employed three proxies such as GDP per capita, gross domestic product, and human development index to measure economic development. At the same time, commercial banks' credit to SMEs, commercial banks' credit to rural communities, total microfinance loans, microfinance loans to SMEs, and Prime lending rate were the explanatory variables. Estimation was done using autoregressive distributed lag at lag 2. It was found that microfinancing has an impact on GDPPC, GDP, and HDI. However, while it has a significant effect on GDPPC and GDP, the effect was negative on the human development index. The outcome of the analysis shows an interesting fact about the Nigerian economy and how it has been impacted by microfinancing from commercial and microfinance banks. Microfinance bank loans were found to have more impact on the three economic development proxies than commercial banks. In contrast, the prime lending rate was found to induce people to borrow funds from these banks except on GDP that it exhibited a negative impact. Since GDP measure the total output produced per year and GDPPC explains output per head, the effect of microfinancing was found to be pronounced as it enhances more production and boosts business activities. This position was in support of Ademola and Arogundade (2014), Abere (2016), and Sultan and Masih (2016), who found a positive and significant impact of microfinancing on growth. Murad and Idewele (2017) also found a positive impact of microfinance on economic growth in the short run, while in the longrun, the effect was insignificant. However, on HDI, the result is different. Human development index, which is a composite index of three indices such as education, health, and standard of living, gives more information about the development of humans in an economy; unfortunately, it was not significantly impacted by microfinancing. The implication of this is that effect of microfinancing has not penetrated enough into the economy to the level it would enhance human development, which is one of the measurements of the economic development of a country. To the best of our knowledge, there is no study that has employed all these three proxies together to measure economic development in Nigeria. This study is in line with the Schumpeter theory of economic growth, which advocated for an increase in financial services that can enhance innovation and, at the same time, economic development.

VI. CONCLUSION AND RECOMMENDATIONS

Having examined the impact of microfinancing on economic development using annual time series from 1992 to 2018 and estimating through the use of autoregressive distributed lag, it was concluded that, microfinancing has a heterogenous effect on economic development, and its impact is more pronounced on GDP and GDPPC. It is therefore recommended that commercial banks, in the course of their deposit mobilization, should endeavor to channel such to both the private sector and SMEs in different sub-sectors to enhance the level of economic development in Nigeria. Also, microfinance banks funds should be more channel to the local traders, SMEs, farmers, petty traders, etc., to increase the development of the rural environment and economy at large.

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