

## THE CONTRIBUTIONS OF MICROFINANCE BANKS TO NIGERIA'S ECONOMIC GROWTH

Ogbeta Dennis O.<sup>a</sup>, Abusomwan Rachael E.<sup>b</sup> & Jackson-Akhigbe Beauty E.<sup>c</sup>

<sup>a,b,c</sup>Benson Idahosa University

Corresponding authors: <sup>b</sup>[rabusomwan@biu.edu.ng](mailto:rabusomwan@biu.edu.ng)

### ABSTRACT

*The study examined the impact of microfinance bank on the economic growth in Nigeria. The specific objectives were to examine the impact of micro loans, micro investment, micro deposit and microfinance bank contributions to agricultural production on economic growth in Nigeria. The study adopts ex-post facto research design. Ex post facto research is a design that begins after an event has occurred and without the interference of the investigator. This is a time series and country specific research as such the population is centred on Nigeria. Time series research is a specific way of analyzing a sequence of data points collected over an interval of time. The research is not firm specific rather, it is country specific as such the population and same are the same. The study covers an interval of 29 years (1995-2023). Data collected were analysed using descriptive statistics and inferential statistics. The result from the analysis revealed that there exist a positive and insignificant between microfinance loan and economic growth in Nigeria, there exist a significant positive relationship between microfinance investment and economic growth in Nigeria, there exist a significant positive relationship between microfinance deposit and economic growth in Nigeria and there exist a significant positive relationship between agricultural production and economic growth in Nigeria. Based on the findings the study further recommends that in order to boost the economy microfinance should advance more loans to the public, microfinance institutions should channel very high proportion of their credits to the productive and real sectors of the economy for valuable impact of their operations on Nigeria's economic growth and Microfinance banks (MFBs) ought to lead in maintaining ethical and professional standards by providing soft loans to reliable and promising entrepreneurs.*

**Keywords:** Microfinance Bank, Micro Loans, Micro Investment, Economic Growth

## 1.0 INTRODUCTION

One way to combat poverty is to empower people with the necessary microfinance loans and services that will enable them start up or run business ventures of their choice. Hulme and Mosley (2020) proposed that capital investment and availability of financial services constitute key determinants of economic growth and are the major drivers of most development efforts. It is precisely this idea that drives microfinance. Empirical result obtained by Hulme and Mosley (2020) show positive relation between financial investment and economic growth, it is reasonable to assume therefore that investing in the impoverished through microfinance services will enhance their income and eventually contribute to the alleviation of poverty. The Central Bank of Nigeria (2019) defines microfinance as the delivery of a wide range of financial services to low-income individuals, households, and their microenterprises, including savings, loan payment services, money transfers, and insurance. Building a financial system that effectively and efficiently meets the requirements of the impoverished is the literal definition of microfinance. It is an effective weapon in the global struggle against poverty. This is accurate since financial services enable the impoverished to increase their income, accumulate assets, and protect themselves from unforeseen shocks. According to Robinson (2019), microfinance enables clients to protect, diversify and increase their incomes as well as to accumulate assets and reduce vulnerability to income and consumption shocks. Microfinance is seen as a vehicle or strategy to alleviating poverty through the provision of micro-Credit and other financial services to low-income household and to other economically active individuals, or groups with the intention of helping them increase their income, operate viable business, reduce vulnerability to shocks and create jobs. Seibel (2020) sees microfinance banking in a wider term as comprising banking and non-banking, formal and non-formal financial institutions with financial services of a small scale mostly to low-income people. Microfinance today in Nigeria and in other parts of the world, occupies a very strategic position in the enhancement of the socio-economic well-being of the poor who are typically self-employed low-income entrepreneurs. According to the United Nations (2018), approximately 70% of Nigerians are living below the poverty level estimated at US \$1.25 per day. GNI per Capita is approximately US\$ 1140 with life expectancy at 48. Given Nigeria's rapidly expanding population, rising unemployment rate, and restless youth, Osamwonyi and Obayagbona (2012) contend that the role of microfinance banking in the country's economic growth and development cannot be understated. The government is also having a difficult time creating enough jobs for the country's citizens. Providing access to financial services for the

low-income earners in Nigeria has remained a daunting challenge to policy makers of the nation's economy (Ademola & Arogundede, 2020). Robust economic growth and development cannot be attained without formulating a well thought out programme of reducing poverty through empowering the rural poor by increasing their access to credit. MFBs were created under the Microfinance Policy, Regulatory and Supervisory Framework for Nigeria of 2005 as a way to formalize microfinance organizations (MFIs) and encourage sustainability and financial discipline while simultaneously giving the unbanked people access to financial services. The framework's primary goals were to regularize Community Banks (CBs), which had been in place since the early 1990s, as conduits for directed lending and to draw in fresh capital. MFBs are permitted to solicit deposits, which are guaranteed by the Nigeria Deposit Insurance Corporation (NDIC), under license from the CBN.

The Microfinance Policy, Regulatory and Supervisory Framework for Nigeria of 2005 gives opportunity for economic growth through granting of loans and advances to all kinds of business and productions thereby increasing employment opportunities and tax generation. The question therefore is how much has these efforts to provide microfinancing yielded positive results? The development of a healthy national financial system is an important goal and catalyst for the broader goal of national economic development. In this era of globalization, generating economic growth in developing countries while reducing poverty is a fundamental challenge. Over time, inadequate supply of credit has been an important constraint on production in many developing countries where majority of the population lack access to financial services from formal institutions, either for credit or for savings. Studies that ascertain the extent to which microfinance have influenced inclusive growth, production and development, including its effects on poverty alleviation, particularly in advanced and developing economies are still heavily debated. Again, until now most existing empirical works such as Chude and Chude (2019), Levine (2022), Ogunleye and Akanbi (2021) on microfinance banking institutions have dwelt on the concept of critical triangle of microfinance which is: financial sustainability, outreach and welfare impact as they relate to poverty alleviation and financing the poor section of the nation's economy. These empirical researches concentrated around the optimal design of the microfinance products, its impact on various development indicators, effects of moral hazards and adverse selection, and more so, these concentration is at the micro level. Why a macro study is better than a micro study is another gap to look at. In contrast, this work will be looking at the role of microfinance on the macroeconomic level and its impact on economic variable through which the sector contributes to the financial

intermediation and growth of the economy. In Nigeria most of the targeted poor are rural dwellers who survive mainly on agrarian income from agriculture. Therefore, there is need to isolate this sector in order to access how this sector has impacted on economic growth. To the best of my knowledge, no other work has carried out in this regard. This work also covers this gap. In other to achieve the objectives of the study which is to examine the impact of microfinance bank on the economic growth in Nigeria, the study will proffer answers to the question of how micro loans and micro investment impacts on the economic growth of Nigeria.

The rest of the paper will be organized into literature review, empirical review, theoretical review, methodology and discussion and conclusion. The literature review will centre on the concept of microfinance, measurement of microfinance and inflation. Empirical review shall entails a review of previous works that are related to the main objective of the study. Theoretical review shall entails reviewing the theories that forms the background of the subject matter of the study. Methodology shall look at the research design, population size, method of data collection and method of data analysis. The discussion and conclusion shall focus on the result of discussion of the result.

## **2.0 LITERATURE REVIEW**

### **2.1 Concept of Microfinance**

The microfinance scheme is a platform aimed to deliver financial services to the active poor and the unbanked so as to alleviate their standard of living. Wanchoo (2022) defines microfinance as any activity that includes the provision of financial services such as credit, savings, and insurance to low-income individuals who either fall below the nationally defined poverty line or fall just above that, with the goal of creating social value. The development of social value entails working to reduce poverty, improving the prospects for the poor's well-being by lending money for microbusinesses, and promoting a saving culture among the impoverished in order to reduce present issues and potential hazards. According to Yunus (2010), microfinance refers to the ways in which the impoverished might obtain financial resources that enable them to leverage their abilities for long-term growth. According to Ehigiamusoe (2019), microfinance encompasses more than just loan repayment and savings collection; it also refers to a collection of adaptable organizational structures and procedures that enable low-income earners and small business owners to continuously receive essential financial services.

Microfinance is a broad term that refers to financial services aimed at low-income individuals or those lacking access to banking facilities. The idea includes not just offering credit to the underprivileged, but also delivering additional financial services. Dasgupta (2019) states that these financial services primarily include deposits, loans, payment services, money transfers, and insurance for impoverished and low-income families and their microenterprises. Microfinance has demonstrated itself to be the most impactful and potent instrument for alleviating poverty by providing capital, social status, knowledge, information, empowerment, social connections, and access to markets. Similar to various other developmental tools, it has not penetrated the lower tiers of society adequately. The poorest from the vast majority of those without access to primary health care and basic education; similarly, they are the majority of those without access to microfinance. Arabi and Meisami (2020) further argued that microfinance can only empower the poor where the low-income earners are appropriately recognized, and the micro loans are utilized to create job. In that regard, the appropriate recognition of various economic strata of the citizens is crucial to the economic growth of a country. Loan facilities, savings, accessibility to resources of payment and risk safety techniques are evident needs of the populace at large (Saeed, 2014). Since financial services dynamically subscribe to the human and economic growth of a nation, it should result to social safety net and safeguard people from economic distress, thus, the need to provide access to affordable financial services. Einamrouty and Al-thalathini (2022) showed that microfinance is one of the interventions that should be utilized to reduce poverty.

There are numerous challenges hindering the performance of the MFBs, in Nigeria, the challenges the MFBs are faced with are; the uneven spread of MFIs, majority of the banks are located in specific section of the country because investors discern that, that environment would yield them more income; and the erstwhile community banks that transformed to MFBs were still operating like the old regime, with so much inefficiency (NDIC, 2021). In addition, knowledge dearth and lack of skills in micro financing business, with limited support for human and institutional capacity building which grossly affected the performance of the MFBs; and inadequate fund for intermediation as a result of the inability to mobilize savings, business capital, and failure to institute Microfinance Development Fund (NDIC, 2021). These challenges slow the attainment of microfinance objectives which are aimed to expand the financial frontier and stimulate the exploitation and development of economic opportunities in the formal sector through the provision of traditional and even non-traditional banking services.

### **2.1.1 Measurement of Microfinance**

The activities of Microfinancing can be rated based on the level of micro loan advanced and the level of micro investment. These variables are explained below:

#### **2.1.1.1 Micro loans**

Micro loans are small loans that are issued by individuals rather than banks or credit unions. These loans can be issued by a single individual or aggregated across a number of individuals who each contribute a portion of the total amount (Soltane, 2012). Micro lending has been facilitated by the rise of the internet and the worldwide interconnectivity that it brings. People who wish to put their savings to use by lending and those who seek to borrow can find each other online and transact. The credit rating of borrowers is imputed using data (including whether or not the borrower owns a home), a credit check or background check, and repayment history if the borrower has participated in microloans in the past. Even those with excellent credit scores can expect to pay slightly more than traditional credit. As a result, lenders may earn a better return than through traditional savings or CDs. Because these loans are not typically backed by any sort of collateral, if a borrower defaults, the lender may expect little or nothing to be recovered. Because of the inherent risk of any single microloan, lenders often invest only a small amount per loan but may fund a portfolio of many dozens of microloans. Therefore, any individual borrower may find their loan is funded by a large number of lenders, each contributing a small percentage of the total amount. By spreading the risk across a wide array of loans with different credit qualities and other attributes, lenders can ensure that even if one or two loans default, their portfolios will not be wiped out. Lenders of microloans are typically individuals, as professional investors and financial institutions find the risks far outweigh the reward. As a result, most microloans are peer to peer in the purest sense.

#### **2.1.1.2 Micro Investment**

Micro-investing is when you invest using small amounts of money regularly (Singh & Bhar, 2016). From the perspective of economic theory, micro investment covers all investment assets or the purchase of business investments by the households and corporate entities. These households and business entities constitute the private and/or micro-economic units. As argued by Henderson and Poole (2010), to understand aggregate investment, the base point is to begin by examining the investment problems faced by the individual households and firms. The sum total of the investment decisions made by millions of micro entrepreneurs, comprising

household individuals and business firms, constitute the aggregate investment needed to achieve and sustain economic development and growth in economy.

The level of these investments is influenced by the extent to which the micro entrepreneurs can take risk or manage such risk. As stated by Ubom (2017) micro investments are those investment projects, initiatives, business and productive activities excluded from the definition of small, medium and large scale business enterprises with focus on the size of investment and number of employees. Such investment falls under the purview of the informal sector investments comprising the investments by road side mechanics, welders, fabricators, fashion designers, hair dressers, agro allied producers, shoe menders, petty shop keepers and those maintaining kiosks, food vendors, fish smokers, etc. These investments provide the core of industrial development and growth when properly managed. Like other investment projects, the micro investments require mainly core, support and peripheral assets (Patel, 2013).

## **2.2 Control Variable**

In order to accurately test the value of an independent variable on a dependent variable the study utilized inflation rate as control variable.

### **2.2.1 Inflation Rate**

Inflation is the rate of increase in prices over a given period of time. Inflation is typically a broad measure, such as the overall increase in prices. To attain sustainable economic growth coupled with price stability continues to be the central objective of macroeconomic policies for most countries in the world today. Among others the emphasis given to price stability in conduct of monetary policy is with a view to promoting sustainable economic growth as well as strengthening the purchasing power of the domestic currency (Umaru and Zubairu, 2012). Kasidi F. and Mwanemela K. (2022) examined the impact of inflation on economic growth and established the existence of inflation growth relationship. Time series data for the period 1990 -2011 were used to examine the impact of inflation on economic growth. Correlation coefficient and co-integration technique established the relationship between inflation and GDP and Coefficient of elasticity were applied to measure the degree of responsiveness of change in GDP to changes in general price levels. Results suggest that inflation has a negative impact on economic growth. The study also revealed that there was no co integration between inflation and economic growth during the period of study. No long-run relationship between inflation and economic growth in Tanzania.

### 2.3 Economic Growth in Nigeria

Economic growth refers to the rise in national income per capita, and it entails analyzing this process, particularly in quantitative terms, focusing on the functional relationships among the endogenous variables; more broadly, it encompasses the growth of GDP, GNP, and NI, subsequently increasing national wealth, which includes productive capacity represented in both absolute and relative terms per capita, also considering the structural changes in the economy (Mahmoud 2021). Economic development involves a structural transformation characterized by ongoing technological advancements and industrial enhancement, leading to increased labor productivity, along with enhancements in infrastructure and institutions that lower transaction costs (Lin, 2017). It is the process by which economies change from those where most individuals possess very few resources and options to those where they have considerably more resources and options. Economic development therefore covers almost all areas of economics, though with modifications to reflect the particular situations of developing countries. Based on a review of the literature, we define economic development as the development of capacities that expand economic actors' capabilities. These actors may be individuals, firms, or industries. Economic development is a broader concept than economic growth. Development reflects social and economic progress and requires economic growth. Growth is a vital and necessary condition for development, but it is not a sufficient condition as it cannot guarantee development. One of the indicators of economic development is Human Development Index (HDI). The extent to which a country has developed may be assessed by considering a range of narrow and broad indicators, including per capita income, life expectancy, education, and the extent of poverty. Microfinance institutions insist that their loans be used for economic productive purposes, mainly because they want to help creditors generate revenues and also because they want to ensure that beneficiaries of the loans will be able to repay them. Although lenders insists that loans be used for productive purposes (such as purchase of inputs, land, raw materials and equipment), there have been some reported cases where some people have used the loans to cater for personal or households needs. These needs include payment for children's school fees, home improvements, consumption expenditures and social spending.

Many people who wish to start businesses have unrealistic expectations when it comes to the funds needed to start a business. Often the poor lack the necessary start-up funds and can't come up with adequate financing. The poor have virtually no cash or liquid assets and expect either a bank or microcredit institutions to provide 100% financing. The fundamental



principle in establishing microfinance is primarily as a tool in the fight against poverty. The rapid growth of the industry over the past 15 years has reached approximately 130 million clients, according to recent estimates by International Financial Corporation of the World Bank. Yet microfinance still reaches less than 20% of its potential market among the world's three billion (IFC 2013). It maintains that financial services for poor people are a powerful instrument for reducing poverty, enabling them to build assets, increase incomes, and reduce their vulnerability to economic stress. Microfinance has also been a powerful catalyst for empowering women. There are several organizations whose primary function includes the provision of a broad range of financial services, such as deposits, loans, payment services, money transfers and insurance to people for either business investment or expansion.

Gross domestic product (GDP) is the standard measure of the value of final goods and services produced by a country during a period (Udom, 2022). While GDP is the single most important indicator to capture these economic activities, it is not a good measure of societies' well-being and only a limited measure of people's material living standards. Countries calculate GDP in their own currencies. In order to compare across countries these estimates have to be converted into a common currency. Often the conversion is made using current exchange rates but these can give a misleading comparison of the true volumes of final goods and services in GDP. A better approach is to use purchasing power parities (PPPs). PPPs are currency converters that control for differences in the price levels of products between countries and so allow an international comparison of the volumes of GDP and of the size of economies. Gross domestic product (GDP) is a key measure of a nation's economic development and growth. The GDP of a country is one of the primary indicators used to gauge or measure the health of that country's economy (Sixtus & Olufemi, 2010). Since it is positively correlated with the standard of living, it can be used to positively affect the lives of rural dwellers. It represents the total naira value of all goods and services produced over a specific time period. It can be seen as the size of the economy. GDP is expressed as a comparison to the previous quarter or year. For instance if the year-to year GDP is up 5%, this implies that the economy has grown by 5% over the last year. Current GDP per capita of Nigeria expanded 132% in the sixties reaching a peak growth of 283% in the seventies. But this later shrank by 66% in the eighties. In the nineties, diversification initiatives finally resulted in the restoration of a decadal growth of 10%. In 2017, the GDP was composed of the following sectors: of a country's economic performance, and is the market value of all final goods and services made

within the borders of a nation in a year. It is a fundamental measurement of production and is very often positively correlated with the standard of living (Sullivan, 2019)

## **2.4 Empirical Review**

### **2.4.1 Micro loans and economic growth in Nigeria**

Microfinance banks have in no small way assisted in the boosting of a country's economy through its micro loan advances. Ajagbe and Bolaji (2022) evaluate the effect of Microfinance banks on the socioeconomic quality of life of commercial motorcycle operators in the Ilorin-West Local Government Area of Kwara State, Nigeria. Based on the results achieved, the research concludes that a substantial connection exists between microfinance bank loans and economic development by enhancing the living standards of commercial motorcycle riders in the Ilorin West local government area of Kwara State, Nigeria. Micro-credit involves lending small sums of money to impoverished individuals who are typically viewed as unbankable, allowing them to invest in self-employment opportunities (Kasim & Jayasooria, 2001). The World Bank (2019) describes micro-credit as a process in which poor families borrow large amounts of money at one time and repay the amount in a stream of small, manageable payment over a realistic time period using social collateral in the short run and institutional credit history in the long run. Majority of Nigerian population reside in the rural areas and the poverty level in the economy is about 80% (Eze, 2022). This compelled the Federal Government of Nigeria to initiate series of publicly micro-financed programmes targeted at the rural and urban poor. Such programmes involved Rural Banking Programme, the Nigerian Agricultural and Cooperative Bank, Peoples Bank of Nigeria, Community Banks, Nigerian Agricultural Insurance Corporation, the Family Economic Advancement Programme, National Poverty Eradication Programme (CBN, 2020). All these programs boost the economy.

Abiola (2019) in his study used the financing constraints approach to assess the impact of microfinance on access to credit for micro businesses in Nigeria. The result showed that there is an improved access to loan in locations where MFBs offers more provision of financial services because investing in local micro businesses was less sensitive to availability of internal funds in unconstrained location, than investment in micro businesses in locations where its activities were inadequate or not in existence. Olowe, Moradeyo and Babalola (2020) studied the impact of microfinance on the growth of small and medium enterprises (SMEs) in Nigeria, and found that financial services offered by the MFBs have favourable significant impact on MSEs growth while loan has a favourable impact on SMEs growth but not statistically

significant. That is, the loan tenor is too short to show a significant impact on the SMEs growth. They also found that high interest rate, collateral and frequency of loan repayment could paralyze the growth of SMEs in Nigeria. On the other hand, Okwoli, Abubakar and Abubakar, (2021) conducted a study on the role of MFBs in rural transformation and development in Nigeria, and explained the performance of MFBs and the risk they are exposed to across various size categories of the institutions. They found that MFBs were generally profitable over recent years. However, the small size MFBs seems to have significant operating inefficiencies. Above all, microfinance banks have performed well in many cases better than the larger banks in managing rural economy through savings and microfinance advances. Thus, the study concludes that microfinance policy and programmes are good empowerment measures which if properly managed would go a long way in improving the condition of lives of the rural dwellers.

#### **2.4.2 Micro Investment and economic growth in Nigeria**

Micro investment creates an opportunity for low-income earners to earn even though it may be little from their investment thereby increasing their disposable income and ability to spend. An increase in disposable income can lead to economic growth because as money is spent the production unit benefit and the chain the product been purchased also benefit. This micro investment window is always been created by microfinance bank so enable the low income earners benefit from investment proceeds despite their small amount. When investment is continuous, production and distribution of goods, increase in taxation for employee in the sector, and increased export becomes a characteristics of a nation. Most economy in the world grow because they produce what they can eat and have more to export thereby leading to better exchange rate. Micro investment and its earnings is an opportunity for low income earners to be included in the investment chain and boost the circle of redistribution of income from the surplus to the deficit sector. from investment Ajagbe and Bolaji (2013), access the impact of micro investment on the socioeconomic standard of living of commercial motorcycle riders in Ilorin-west Local Government Area of Kwara State, Nigeria. From the results obtained, the study concludes that there is a significant relationship between the micro investment and economic growth and the standard of living of commercial motorcycle riders in Ilorin west local government area of Kwara State, Nigeria. Rauf and Mahmood (2022) examined the development process adopted by the microfinance sector and its impact on performance in microfinance institution in Pakistan. To strike a balance between outreach and poverty alleviation, an intensive development technique was used and it shows that extra income is

powerful at the initial levels of development. This extra income can be from micro investment or interest in savings. Maksudova (2019) empirically investigated the role of microfinance to financial sector development and economic growth in Czech Republic. He employed Panel data approach in addition to Granger causality test for 103 countries for the period 1995- 2018 in order to determine the causality between microfinance banks and economic growth. From the review of these prior studies, it is being observed that most of the studies found a positive relationship between microfinance investment and economic growth. Murad and Idewe (2019) examined the impact of microfinance institution on economic growth of a country, thus using Nigeria as a case study. The study employs the multiple regression analysis given that the data are cross-sectional and time series in nature. Secondary data of all commercial banks were extracted from the Central Bank of Nigeria statistical Bulletin and Annual Reports. Data used in this model are time series secondary data for the period 1993 to 2017. The study which classified microfinance loan, microfinance investment and microfinance deposit as proxies of microfinance found that microfinance loans considerably benefit short-term economic performance in Nigeria. Microfinance loans boosted per capita consumption in the short term with a notable coefficient, yet these bank loans do not significantly affect economic growth over the long term. Microfinance investment does have a noteworthy effect on Nigeria's economic performance over the long term. While microfinance deposit plays a crucial role in Nigeria's growth process, increasing agricultural output and implementing effective measures to raise per capita income.

## **2.5 Theoretical Review**

### **2.5.1 The Neo-Classical and Endogenous Growth Theory**

The neoclassical growth theory is an economic concept where equilibrium is found by varying the labour amount and capital in the production function while the Endogenous Growth theory states that economic growth is generated internally in the economy, i.e., through endogenous forces, and not through exogenous ones. The implication of these theories to this study is centered on the fact that an economy can only grow when microfinance variables such as micro loans and micro investment are effectively introduced to finance the small medium scale businesses thereby reducing unemployment because these SMEs are going to generate jobs at their level and increase production and reduce cost of consumption as a result of local production. These are endogenous growth strategy employed by many countries in the world. The neoclassical growth theory that emphasis on equilibrium in labour amount and production

capital is cantered on the premise that capital is made available either from micro loans, proceeds from investment or other sources while on the other hand labour amount is achieved based on efficiency of production. The neoclassical perspective is based on a basic principle in economics which suggests that economic growth requires capital investment in the form of long-term commitment. The neoclassical growth theories assume that capital investment can channel required funds to the productive sectors of a capital deficient economy which, in turn, would help to increase the economic growth rate by increasing the marginal productivity of capital (Soltane, 2012). It is on the basis of the foundation of these theories that the following hypothesis are developed.

*Ho<sub>1</sub>. There is no significant relationship between micro loans and economic growth in Nigeria.*

*Ho<sub>2</sub>. There is no significant relationship between micro investment and economic growth in Nigeria.*

### **3.0 METHODOLOGY**

The study adopts ex-post facto research design. Ex post facto research is a design that begins after an event has occurred and without the interference of the investigator. This is a time series and country specific research as such the population is centred on Nigeria. Time series research is a specific way of analyzing a sequence of data points collected over an interval of time. The research is not firm specific rather, it is country specific as such the population and same are the same. The study covers an interval of 28 years (1995 2022). The choice of this period is based on the fact that most of the reforms initiated by the Federal Government of Nigeria through the instrumentality of the apex bank (The Central Bank of Nigeria) in the microfinance banks were more obvious in this era. Data collected were analysed using descriptive statistics and inferential statistics. Evidence abounds that there is a relationship between finance and economic growth but the direction of causality has remained the bone of contention. Schumpeter (2020) stated from supply-leading response school of thought that financial development leads to economic growth.

Simple production is expressed as:  $Q = f(l, k, u)$  3.1

Where:

$Q$  = stands for the output,

$k$  = for capital,

$l$  = for labour force

$u$  = represents other factors that influences production such as tech. knowledge, rate of investment, government policies, etc. In order to empirically examine the impact of microfinance on economic growth, this study adopts Murad and Idewale (2021). The study also included inflation rate as an explanatory variable. The model stated in Murad and Idewale (2021) is specified as:

$\Delta PCC = f(MFL, MFI, MFD, AGPR)$  3.2

Where:

$\Delta PCC$  = Changes in Per Capita Consumption

$MFL$  = Micro Finance Loan

$MFI$  = Micro Finance Investment

$MFD$  = Micro Finance Deposit

$AGPR$  = Agricultural Production

In adopting the model 3.1, this study replaces change in PPC with economic growth proxied by the real gross domestic product (RGDP) which is stated as follows:

$RGDP = f(MFL, MFI, INF)$  3.3

Where:  $RGDP$  = Real gross domestic product

$MFL$  = Micro Finance Loan

$MFI$  = Micro Finance Investment

$INF$  = Inflation Rate

Expressing 3.2 in an economic form gives:

$RGDP = B_0 + B_1MFL + B_2MFI + B_3INF + e$  3.4

Where e is the error term

However, it can be observed that while RGDP, MFL, MFI, are given in absolute terms, INF is given in rates. In order to bring all the variables to the same magnitude, MFL and MFI is logged. Based on this, 3.3 is stated as

$$\text{LRGDP} = B_0 + B_1\text{LMFL} + B_2\text{LMFI} + B_3\text{LINF} + e \quad 3.5$$

Where LRGDP,  $B_1\text{LMFL}$ ,  $B_2\text{LMFI}$ ,  $B_3\text{LINF}$  are the logged values of Real Gross Domestic Product, Real Micro Finance Loan, Real Micro Finance Investment, Real Inflation Rate stated in log forms

As common to time series data the possibility that these variables will not conform with random walk hypothesis at levels is quite high. Therefore, this study uses the error correction technique. The error correction format of 3.4 is stated as:

$$\Delta\text{LRGDP} = B_0 + B_1\Delta\text{LMFL} + B_2\Delta\text{LMFI} + B_3\Delta\text{LINF} + \text{ecm} \quad 3.6$$

$\Delta\text{LRGDP}$  = log of Real domestic product

$B_1\Delta\text{LMFL}$  = Log of Micro Finance Loan

$B_2\Delta\text{LMFI}$  = Log of Micro Finance Investment

$B_5\Delta\text{LINF}$  = Log of Inflation Rate

ecm = error correction

The a priori expectation is that  $B_1, B_2, B_3 > 0$

#### 4.0 RESULTS AND DISSCUSSION

Table 4.1: Descriptive Statistics

	Mean	Maximum	Minimum	Stv.dev	Skewness	Kurtosis	Sum Sq. Dev
RGDP	5.065517	14.6	-1.51	3.508674542	0.529767	0.582871	1088.8268
MFL	40866.21	197230.1	105.02	61215.92746	1.735985	2.049326	1.53358E+11
MFI	36651.96	159453.5	579.33	49373.78614	1.318761	0.509594	1.04575E+11
INF	21.16241	72.84	5.39	16.51556834	1.90582	3.214364	20624.9769

Observations	29	29	29	29	29	29	29
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**Source:** *Researcher's Computation (2024).*

The dependent, independent and control variables, RGDP, MFL, MFI and INF have mean values of 5.065517, 40866.21, 36651.96, and 21.16241 respectively. The descriptive statistics also shows the maximum values of the variables RGDP, MFL, MFI and INF as 14.6, 197230.1, 159453.5 and 72.84 respectively while the minimum values are -1.51, 105.02, 579.33 and 5.39. The standard deviation of RGDP 3.508674542 spreads out from its mean. The data is far from the mean which indicates a high level of instabilities in the dataset. The standard deviation of MFL is 61215.92746 away from the mean. This is low and indicates the existence of some low level of dispersion in the data set. The standard deviation of MFI is 49373.78614 away from the mean and it connotes the existence of some level of variance in the data series. The standard deviation for INF stood at 16.51556834 which again is far from the mean.

**Table 4.2: Correlation Analysis**

	RGDP	MFL	MFI	INF
RGDP	1.000			
MFL	0.421	1.000		
MFI	0.341	0.413	1.000	
INF	0.222	0.332	0.277	1.000

**Source:** Researcher's Compilation (2024).

Table 4.2 present the outcome of correlation analysis shows a relationship among variables. The outcomes shows that MFL, MFI and INF have a positive relationship with economic growth (RGDP) with correlation values of 0.42, 0.341, and 0.222 respectively. The highest number from the outcomes is 0.42 which indicates a moderate positive association between variables.

**Table 4.3: Augmented Dickey-Fuller Unit Root Test**



Variable	Level	First difference	Lag(s)	Model	Order of integration
RGDP	-1.16068	-3.779183**	1	Trend	Intercept
MFL	-0.62452	-6.198514***	1	Trend	Intercept
MFI	-3.02108	-4.976680***	1	Trend	Intercept
INF	-1.51059	-4.795772***	1	Trend	Intercept
ECM(-1)	-5.018111***	0	None	I(0)	

**Source:** Researcher's Computation (2024).

Table 4.3 shows the application of Augmented Dickey-Fuller Unit Root Test to describe the variables (series). Under this study it shows that Real Gross Domestic Product (RGDP), Microfinance Loan (MFI) and Microfinance Investment showed a unit root without significant deterministic trend coefficient at level. However, the variable used in this analysis are stationary at first difference while the other table, reveals that there is a long run relationship between dependent variable (RGDP) and the independent variables (MFL, MFI, and INF) within the period under review 1995 2022.

**Table 4.4: Unrestricted Cointegration Rank Test (Trace)**

Hypothesized				
0.05				
No. of	Critical			
CE(s)	Eigenvalue	Trace Statistic	Value	Prob.**
None *	0.985322	140.4174	63.8761	0.0000
At most 1 *	0.812737	55.98922	42.91525	0.0015
At most 2	0.493374	22.48439	25.87211	0.1248
At most 3	0.358686	8.884733	12.51798	0.1876

Trace test indicates 2 cointegrating eqn(s) at the 0.05 level

\* Denotes rejection of the hypothesis at the 0.05 level

\*\*MacKinnon-Haug-Michelis (1999) p-values

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**Source:** Researcher's Computation (2024).

Table 4.4 reflects the Eigenvalue, Trace Statistics, critical value and probability value. Their results are related to the number of scenarios (At Most 1, At most 2 and At most 3). The corresponding eigenvalue is the factor by which an eigenvector is stretched or shrunk. If the eigenvalue is negative, the eigenvector's direction is reversed. In the above figures, the eigenvalue is positive.

**Table 4.5: Unrestricted Cointegration Rank Test (Maximum Eigenvalue)**

Hypothesized				
No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None *	0.985322	84.42813	32.11832	0.0000
At most 1 *	0.812737	33.50483	25.82321	0.0040
At most 2	0.493374	13.59966	19.38704	0.2821
At most 3	0.358686	8.884733	12.51798	0.1876

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Max-eigenvalue test indicates 2 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:** Researcher's Computation (2024).

Table 4.5 reflects the results of Eigenvalue, Max-Eigen Statistic, Critical Value and Probability values in relation to the different scenarios (At most 1, At most and At most 3).

**Table 4.6: Long-Run Estimation Result**

RGDP	Coefficient	Std. Error	t-Statistic	Prob.
C	328.9407	18.69188	17.59805	0.0000
MFL	4.213927	0.615903	6.84187	0.0000
MFI	2.87E-06	9.57E-07	2.999942	0.0077
			-	
INF	-0.967169	0.222982	4.337433	0.0004
R-squared	0.965039	Mean dependent var		538.8727
Adjusted R-squared	0.959213	S.D. dependent var		193.464
S.E. of regression	39.07177	Akaike info criterion		10.33164
Sum squared resid	27478.85	Schwarz criterion		10.53001
Log likelihood	-109.6481	Hannan-Quinn criter.		10.37837
F-statistic	165.6218	Durbin-Watson stat		10.37837
Prob(F-statistic)	0.000000			

Source: Researcher's Computation (2024).

Table 4.6 reflect the long run estimation result which shows the Coefficient, Standard error, t-statistic and probability of the variables (MFL= Microfinance Loan, MFI= Microfinance Investment, INF= Inflation).

**Table 4.7: Short-Run Estimates Error Correction Mode**

RGDP	Coefficient	Std. Error	t-Statistic	Prob.
C	4.529274	0.177778	25.47714	0.00000
LOG (MFL)	0.069436	0.023354	2.973128	0.009
LOG (MFI)	0.108825	0.014278	7.621646	0.00000

LOG (INF)	0.000703	0.000413	1.701025	0.1083
			-	
ECM(-1)	-0.000786	0.000282	2.790210	0.0131
R-squared	0.98789	Mean dependent var	6.251795	
Adjusted R-squared	0.984862	S.D. dependent var	0.336127	
S.E. of regression	0.041355	Akaike info criterion	-3.328969	
Sum squared resid	0.027364	Schwarz criterion	-3.080273	
Log likelihood	39.95417	Hannan-Quinn criter.	-3.274995	
F-statistic	326.3026	Durbin-Watson stat	1.768668	
Prob(F-statistic)	0.000000			

**Source:** *Researcher's Computation (2024).*

Table 4.5 and 4.6 displays a regression result of impact of Microfinance on the economic growth of Nigeria. As specified above, the results were obtained using the ECM and the Ordinary Least Square (OLS) method of estimation. From the empirical evidence the error correction estimates for the short-run dynamics is rightly signed with negative coefficient value of -0.000786 and absolute 2.790210 T-statistics value coupled with 0.0131 probability values. These estimates confirmed the long-run equilibrium condition evidenced among the variables included in the model and it further suggests that 0.78 percent of disequilibrium within a year is corrected for while the remaining 99.2 percent are corrected for in the following year. The productive capacity of microfinance loans which is indicated as (MFL) is positive and insignificant both for the short-run and long-run situations with 0.069 and 4.214 coefficients coupled with 2.973 and 6.842 absolute T-statistics value and probability values of 0.009 and 0.000. This implies that if MFL increase by 1 unit RGDP will increase by the magnitude of the coefficient both in the short and long run. The immediate effect of domestic microfinance investment (MFI) is significantly positively related to economic growth both in the short-run and long-run situations. This implies that a unit increase in MFI will cause RGDP to increase by the magnitude of the coefficient both in the short and long run.

The long-run inflation (INF) values is -0.967 coefficient, 4.337 absolute T-statistics value and 0.0004 probability value; however, in the short run INF is positive but does not

significantly impact on real gross domestic product in Nigeria with 0.0007 coefficient, 1.701 absolute T-statistics value and 0.108 probability values in the long-run and 46.675 coefficient, 4.3 T-statistics and 0.002 probability values in the short-run situation. The implication is that INF positively and negatively affects national outcome significantly. The long-run adjusted R<sup>2</sup> obtained is 0.965. This shows that the independent variables included in our model accounts for 96.5 percents variations in economic growth in Nigeria (proxy as RGDP) while the remaining 3.5 percent unexplained variations is due to other extraneous factors that also necessarily accounts for the movement in economic growth in Nigeria and there are captured by the error term. The implication is that the models do not suffer from any misspecification error. Complementing this is the F-ratio statistics with 165.6 with probability values of 0.000. This is highly significant at the 5 percent levels; thus, lending credence to the conclusion that the model has goodness of fit. More so, the Durbin Watson (DW) statistics of 2.22 imply that the model is free from autocorrelation or serial correlation problem. The short-run adjusted R<sup>2</sup> obtained is 0.984. This shows that the explanatory variables included in our model accounts for 98.4 percents movement in gross domestic product in Nigeria while the remaining 1.6 percent unexplained variations is due to other extraneous factors that also necessarily accounts for the movement in economic growth in Nigeria which is explained by the stochastic term. The implication is that the models do not suffer from any misspecification error. Complementing this is the F-ratio statistics with 326.95 with probability values of 0.000. This is highly significant at the 5 percent levels; thus, lending credence to the conclusion that the entire model has goodness of fit. More so, the Durbin Watson (DW) statistics of 1.768 imply that the model is free from autocorrelation or serial correlation problem.

#### **4.1 DISCUSSION AND CONCLUSION**

The findings revealed that microfinance loans have a stimulating or expansionary effect on economic growth measured by real gross domestic product in Nigeria over the years. This finding is in line with the findings of Ajagbe and Bolaji (2022) who evaluated the effect of Microfinance banks on the socioeconomic quality of life of commercial motorcycle operators in the Ilorin-West Local Government Area of Kwara State, Nigeria and found that a substantial connection exists between microfinance bank loans and economic development by enhancing the living standards of commercial motorcycle riders in the Ilorin West local government area of Kwara State, Nigeria. Abiola (2019) in his study used the financing constraints approach to

assess the impact of microfinance on access to credit for micro businesses in Nigeria. The result showed that there is an improved access to loan in locations where MFBs offers more provision of financial services because investing in local micro businesses was less sensitive to availability of internal funds in unconstrained location, than investment in micro businesses in locations where its activities were inadequate or not in existence. Another findings that align with the findings of this study is the work of Olowe, Moradeyo and Babalola (2020) who studied the impact of microfinance on the growth of small and medium enterprises (SMEs) in Nigeria, and found that financial services offered by the MFBs have favourable significant impact on MSEs growth while loan has a favourable impact on SMEs growth but not statistically significant.

The study also found that microfinance investment plays a positive role in economic growth. This finding has shown that micro investment creates an opportunity for low-income earners to earn even though it may be little from their investment thereby increasing their disposable income and ability to spent. This finding aligns with the result of Ajagbe and Bolaji (2013) who accessed the impact of micro investment on the socioeconomic standard of living of commercial motorcycle riders in Ilorin-west Local Government Area of Kwara State, Nigeria and found that there is a significant relationship between the micro investment and economic growth and the standard of living of commercial motorcycle riders in Ilorin west local government area of Kwara State, Nigeria. Rauf and Mahmood (2022) examined the development process adopted by the microfinance sector and its impact on performance in microfinance institution in Pakistan. To strike a balance between outreach and poverty alleviation, an intensive development technique was used and it shows that extra income is powerful at the initial levels of development as such micro finance investment has a positive impact on economic growth of Nigeria. Again, Maksudova (2019) who empirically investigated the role of microfinance to financial sector development and economic growth in Czech Republic found a positive relationship between microfinance investment and economic growth. This implies that the findings of this result seems to be the popular result regarding micro investment and economic growth. Murad and Idewe (2019) also examined the impact of microfinance institution on economic growth of a country, thus using Nigeria as a case study. The study which employed the multiple regression analysis given that the data are cross-sectional and time series in nature found that microfinance investment does have a noteworthy effect on Nigeria's economic performance over the long term.

From the findings of the research, we therefore conclude that microfinance loans have a stimulating or expansionary effect on real gross domestic product in Nigeria over the years. The possibility of this; is traceable to the fact that microfinance bank gives soft loans to productive and promising micro, small and medium scale enterprises (MSMEs) that are key players in the drive for economic growth. More so, microfinance loans have played a vital role in the economic growth in Nigeria because it serves as a catalyst for economic growth in Nigerian economy. Microfinance investment plays a positive role in economic growth. Generally, it is believed that inflation has more of a negative impact on gross domestic product than of a positive impact. Based on the findings the study recommends that in order to boost the economy microfinance should advance more loans to the public, microfinance institutions should channel very high proportion of their credits to the productive and real sectors of the economy for valuable impact of their operations on Nigeria's economic growth and microfinance banks (MFBs) need to lead in ethical and professional practices by providing soft loans to reliable and aspiring entrepreneurs. The investment department of microfinance must ensure that credit lines are allocated to areas that will stimulate economic growth, which are the real sectors of the economy such as the manufacturing and agricultural sectors and more attention be given to the issue of inflation and its dampening effect on the economy. The implication of the study is that government through the Central bank of Nigeria will now focus more on increasing grants and advances to microfinance banks so that they will be more liquated to grant loans to small enterprise leading to creation of more jobs, boosting the economy and reducing unemployment. A review of this study reflects that there is need for a second look into the subject matter but with focus on microfinance SME loan and how it affects the economic growth of a country. Again, the period scope need to be extended to year 2024. These are grey areas for future research.

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