European Journal of Economic and Financial Research
ISSN: 2501-9430
ISSN-L: 2501-9430
Available on-line at: http://www.oapub.org/soc

doi: 10.5281/zenodo.3732438 Volume 4 | Issue 1 | 2020

MICROFINANCING, POVERTY ALLEVIATION AND NIGERIA'S ECONOMIC GROWTH: THE NEXUS

Clement I. Ezeanyeji[1],
Usifoh, Kingsley Stanley[2],
Cyril Ogugua Obi[3],
Ejefobihi, Ugochukwu Frank[4i]
[1]Professor, Department of Economics,
Chukwuemeka Odumegwu Ojukwu University,
Anambra State, Nigeria
[2]Interim Joint Matriculation Board Examination (IJMB) Unit,
College of Education
Agbor, Delta State, Nigeria
[3]Dr., Department of Economics,
Chukwuemeka Odumegwu Ojukwu University (COOU),
Anambra State, Nigeria
[4]Graduate Research Student,
Chukwuemeka Odumegwu Ojukwu University,
Anambra State, Nigeria

Abstract:
This study investigated the nexus between microfinancing, poverty alleviation and Nigeria's economic growth from the period of 1992 to 2018. Specifically, it seeks to probe the actual effect of microfinance bank loans on economic growth and employment creation in Nigeria. Augmented Dickey-Fuller (ADF) test, ARDL bounds cointegration test, and the short-run diagnostics and stability for ARDL Model were employed in the analysis. The research findings admitted that, microfinance banks' operations do not significantly contribution to poverty alleviation in Nigeria. Also, it established that microfinance banks' loan advances do not significantly affect growth of GDP in Nigeria. Again, microfinance banks' loans advances have significantly negative contribute to employment opportunities in Nigeria. The implication of the first finding is that, may be attributed to difficulties enshrined in operating environment which make the realization of their objectives cumbersome. Regarding the second findings, the implication indicates that when loans elongated by the microfinance banks to that of business sector and it is not protracted, this will not procreate a corresponding elevate in the economic growth of Nigeria. Also, another implication is that the businesses were not generating enough profit to cover sufficiently the running cost and profit. Therefore, the borrowers will

[i] Correspondence: email ci.ezeanyeji@coou.edu.ng, coedagabuijmb@gmail.com, co.obi@coou.edu.ng, lambatzfrank@gmail.com

remain in the cycles of borrowing and repaying for years and years. Finally, the significant effect of microfinance banks' loan advances on creation of employment opportunities on the third finding, the implication is that by granting credit, Microfinance banks enable their clients expand their productivity. This expansion will exact the existing manpower. Additional hands will naturally be engaged to cope with the new level of production. Based on the research findings of this study, for effective loan and advances, 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. However, Microfinance Banks (MFBs) should therefore, be front-liners of ethical and professional conduct by ensuring that fluffy loans are given to plausible and desirable entrepreneurs. Furthermore, there is should be deliberate policy by the government encouraging the operation of microfinance banks in rural areas and occasionally in semi-urban areas. This will increase savings mobilization of the banks, thereby creating more employment opportunities.

JEL: N10; O10; O12; O40

Keywords: microfinancing, poverty alleviation, economic growth, job creation

1. Introduction

1.1 Background of the Study

Poverty is a major problem confronting the world today. Half of the population of the world is living on less than $5 Dollars per day (World Bank, 2018). Although, notable progress has been witnessed on poverty reduction, the population of people that are still living in extreme poverty globally is still unacceptably high. However, the recent estimates according to the World Bank (2018) shows that 10 per cent of the population of the globe lived on less than 1.90 US Dollar in a day in 2015 compared to 11% in 2018. These are significant improvements when compared to the nearly 36 per cent recorded in 1990**.** 736 million people lived on less than 1.90 US Dollar in a day in 2015, which is lower than the 1.85 billion people recorded in 1990 (World Bank, 2018). This means that nearly 1.1 billion fewer people are living in extreme poverty in 2015 than in 1990. The world achieved the first Millennium Development Goal target to cut the 1990 poverty rate in half by 2015 in 2010, five years before the scheduled time (Mahembe & Odhiambo, 2018). Although poverty is a global phenomenon, it is a peculiar problem in developing countries. The top five (5) countries with the highest number of people living in extreme poverty are: (in no particular order): Nigeria, Bangladesh, Democratic Republic of Congo, India, and Ethiopia (World Bank, 2018)

The extremely low GNP (Gross National Product) per capita of these countries is a reflection of the gravity of the poverty in them. Extreme poverty is now very high in less developed countries, particularly South Asia and sub-Saharan Africa (Mahembe & Odhiambo, 2018). The Sub-Saharan Africa (SSA) is the poorest region in the globe with about 35 percent of the population surviving on less than 1.90 US Dollar in a day and it

is the home of half of the world's extremely poor people (Mahembe & Odhiambo, 2018; Kasali, *et al*., 2015), The poverty rate in these countries is high because they are characterised by low capital formation, weak financial system, under-utilisation of and over-reliance on natural resources, lack of entrepreneurial skills and initiatives, technological backwardness, rural-urban inequality etc (Jhingan, 2002; Apere, 2016). Neoclassical theorists such as Arthur Lewis (1954) and Walt Rostow (1960) have formulated economic theories to assert that efficient financial market especially the banking system as major factor that can be used to fight poverty by mobilising savings for capital accumulation to support entrepreneurship especially among the rural dwellers via the microfinance banks and institutions.

Microfinance is a developmental strategy that is used to increase financial inclusion by broadening financial services accessibility to all strata of the population (Apere, 2016; Kasali, *et al*., 2015). The provision of financial services such as loans, savings etc to low income groups (Taiwo, 2012; Apere, 2016). It pays special attention to a category of the populace who has been excluded from the formal financial sector over the years simply because of their income level, gender, location, level of financial education etc (Emmanuel, *et al*., 2015). Majority of these people are in the informal sector that constitutes the largest part of the economy in developing countries including Nigeria (Apere, 2016). It is believed that by rendering financial services to these unreached, unserved, and unbanked portions of the population, will enable them to unleash their potentials, develop their capacity, strengthen their human and physical capital, and engage in productive activities that would generate income for their livelihoods and the benefits of their families. Microfinance provides the financial infrastructure that allows people, especially poor women to engage more actively in the economy (Apere, 2016, Olateju, 2018). It helps to mobilise greater household savings, marshal capital for investment, and expand the class in the entrepreneurs of Nigeria.

The proponents of microfinance believe that it can help to reduce poverty incidence via job creation, and thereby increase income generation which would subsequently lead to economic growth (Nyarondia, 2017; Ariful, *et al*., 2017). Microfinance provides the poor and the unemployed micro-credit that they could use to engage in some petty trades or even set up small businesses. They could be able to secure bigger loans from the banks to expand their business, they can proof their credit worthiness with the micro-credit (Nyarondia, 2017). When they expand, they will employ other people who will also earn incomes. So, microfinance does not only offer self-employment opportunities to the poor, it also creates decent jobs for the growing labour force (Nyarondia, 2017). In process of alleviating poverty, and creating employment, microfinance is making significant contribution to economic growth as more incomes would be generated by producing adequate goods and services in the economy (Ademola & Arogundade, 2014). The microfinance banks and institutions themselves provide good paying jobs that have multiplier effects on the economy in general.

The apex bank of Nigeria introduced microfinance policy in 2005 with the release of a framework for the operation of micro-finance banks in the country. These banks render financial services to the poor and low-income earning so as to improve their living

standard and reduce the level of poverty in Nigeria (Ademola & Arogundade, 2014). Microfinance is now popular in Nigeria with hundreds of microfinance banks and institutions operating across the country. They play a prominent role in providing financial support to petty traders who often secure collateral-free loans to keep their businesses afloat. Most of microfinance banks operating in Nigeria adopt the group-based lending approach using individual guarantors, joint liability, social pressure, and compulsory savings as alternatives to conventional forms of collateral. However, many of the microfinance banks charge high interest on loans (as high as 30-40%) and demand instalmental repayment starting from a week or two weeks after the loan has been granted (Nyarondia, 2017). This raises serious doubts over the potency of microfinance in actually alleviating poverty in Nigeria as some studies have shown that the scheme only leaves the poor impoverished (UNCTAD, 2018). It is therefore worthy to conduct a study to unravel the effect of microfinancing, poverty and Nigeria's economic growth, and by extension, examine its role in job creation and stimulation of Nigerian economy.

1.2 Statement of the Problem

Nigeria has earned amount of money from oil sales over the years, but this has not translated to significant poverty reduction and shared prosperity. A recent World Bank report ranked the country second among nations with the highest population of extremely poor people after India with countries like Bangladesh, Democratic Republic of Congo, and Ethiopia fairing better (World Bank, 2018). Microfinance policy was introduced to help reduce the poverty level in Nigeria, but the reality does not depict success. Although microfinance is World's oldest and strongest financial system in history and has been successful in other regions of the World such as Asia, Latin-America, Europe etc (Taiwo, 2012; Ademola & Arogundade, 2014), its effectiveness in Africa and in Nigeria has been a topic of controversy. It is being argued that microfinance banks provide access to capital and financial services only to the poor for profit but do not play significant role in alleviating poverty (Nyarondia, 2017; UNCTAD, 2018). The damning effect of the commercialisation of microfinance on their effectiveness as a tool for poverty alleviation has been worrisome.

The mode of operation of Microfinance Banks in Nigeria especially as regards their loan administration has been a major concern among development economists. It is being argued that microfinance banks and institutions are debt traps for the poor and enslaved women as they are often unable to repay the loans because of the exorbitant interest rates charged (Nyarondia, 2017). In the bid to recover loan defaults, most microfinance banks resort to using coercive and even violent tactics to threaten defaulters to pay. Some defaulters become demoralised and even fall into depression, which consequently affect their business forcing them to close down thereby increasing unemployment and aggravating the problem of poverty.

The woes of the loan defaulters are compounded by the structural rigidity in the system. There is high occurrence of small business shutdown in Nigeria due to market failures and inefficient systems that do not allow small traders to make sufficient sales to enable them repay their loans in time. This has affected Microfinance Banks operations

and consequently, the growth progress of the country. However, there is the need to examine this empirically using the appropriate approach.

The main objective of this study is to examine the nexus between microfinancing, poverty alleviation and Nigeria's economic growth. Specifically, the study intends to:

1) Examine the efficacy of microfinance banks operations in alleviating poverty in Nigeria;
2) Explore the effect of microfinance banks' loan advances on growth of GDP in Nigeria; and
3) Examine the efficacy of microfinance banks in creating job opportunities in Nigeria.

2. Literature Review

2.1 Conceptual Framework

2.1.1 Definitions of Microfinance

It is widely acknowledged that microfinance is embraced globally and enjoys wide acceptance because it broadens, deepens, and speeds up the interconnection between poverty alleviation, economic growth and development. The concept of microfinance is not new. Savings and credit groups that have been operated for centuries includes the "Susus" of Ghana, "Chit funds" in India, "Tanda in Mexico, "Arisan" in Indonesia, "Cheetu" in Sri lanka, and "Pasanaku" in Botova, as well numerous saving clubs found all over the world. Microfinance is an arrangement through which financial services are provided by credit and savings institutions to customers that are neglected by deposit money banks (commercial banks). Nyarondia (2017) defined microfinance as the provision of various financial services such as: loans, savings, insurance, transfer services etc to low-income households. Ghulam, *et al*., (2017) described microfinance as the lending of small amount of money to the poorest people who do not have credit history and any collateral to qualify to secure loan from the formal credit market.

According to Oluyomno (2007), microfinance is a globally accepted means of reaching businesses and persons that are either unserved or underserved by the normal commercial banks. Karlan and Goldberg (2007) describe microfinance as the provision of small-scale financial services to people who do not have access to the traditional banking services. In essence Microfinance is financial services for the indigent and low-income earning clients. Practically, the term is used to refer specifically to loans and other financial services provided by microfinance institutions. Microfinance is broadly referred to as a system in which low-income people are granted access to a range of affordable financial services regularly by retail providers to finance income-generating activities, acquire assets, maintain consumption, and guide against risks. These services comprise savings, credit, payments, remittances, insurance etc.

2.1.2 Definitions of Poverty Alleviation

Poverty is a major way of describing economic hardship and degradation of human dignity. Poverty may be said to be the root of virtually all socio-economic and political

ills of the society particularly in recent times. Poverty has made many people to engage in illicit and detestable activities such as drug/human trafficking, suicide and rape (Ezeanyeji & Ozughalu, 2014). Although poverty is universal and there is abundant literature on it, there is no universally acceptable definition for it (Laderchi, Saith & Stewart, 2003, 2006). There are conflicting views on its nature, trend and measurement. Deaton (2002) describes this problem correctly in the quest to determine the real picture of global poverty;

> *"Real progress has been made in retarding poverty in recent years, particularly in India and China. However, there is still much uncertainty about the numbers (Deaton, 2002). The same data, two World Bank's Reports that were released within two years on whether world poverty was increasing or decreasing reached different conclusions on whether world poverty was going up or down. How can we know whether the world poverty counts are accurate?"*

The debate over its meaning persist because poverty has both tangible and intangible indicators. Callan and Nolan (1991) observed that one challenge confronting researchers and policy makers is the identification of the poor and measuring the extent of their poverty. Due to its complexity, the best measurement of poverty must capture its multifaceted nature as well as its different concepts (Lok-Dessallien, 1999). In spite of the disagreements over its conceptualization, it is generally accepted that poverty is not desirable because it adversely affects individuals and communities as it leads to social exclusion, isolation, fear, anxiety, and bereavement (Backwith, 2015). The poor are powerless and voiceless; they live in less dignified environments with low earnings, insufficient basic infrastructure and chances for improved welfare. Poverty may lead to loss of self-confidence, self- actualization, self-fulfillment, lack of good orientation and abandonment of cultural values and heritage to the extent that people are not proud of their cultural and racial identity (Commins, 2004; Jencks, 1992; Porter & Washington, 1979; Shah, 2016). It is also evident in disregard for ethics and low intellectualism, and wide spread of selfishness among people (Abimuku, 2006). It makes people to be incapacitated and deprives them the enjoyment of development and sustenance.

2.1.3 Definitions of Economic Growth

Economic growth is an important concept in Economics that is used to assess the performance of an economy. Though it is often used interchangeably with economic development in the literature, they do not mean the same thing in the strict sense. According to Abdulkadir, *et al*., (2010) economic growth simply means increase in per capita income or increase in Gross National Product (GNP). Pietak (2014) described economic growth as a measure of describing the dynamics of economic processes in a country. Cvetanovic, *et al*., (2019) described economic growth as the "*increase in the value of a country's production over time*". According to them, the extent of growth that a country can achieved depends on its ability and capacity to accumulate the direct factors of production and invest in knowledge acquisition. They highlighted the most significant

fundamental factors of growth to include: population growth, financial development, qualitative macroeconomic environment, income distribution, political and social environment etc.

2.1.4 Definitions of Job Creation

The conceptualisation of job creation becomes necessary on the account of the effect of technological progress on the dynamics of the labour which has also resulted in non-job growth in most countries. Ma, *et al*., (2015) described job creation as the total employment gains from expanding and new establishments within sectors of an economy. Similarly, Liu (2018) defined job creation as the aggregate of the net employment increases of all firms that expanded or new up. Davis and Haltiwanger (1990) captured job creation as employment growth at expanding and new establishments within sectors. Also, Janghee, *et al*., (2017) defined job creation as the aggregate of Jobs created from opening new establishments or from expanding existing establishments. According to Holmes, *et al*., (2013), job creation refers as the creation of employments through a number of interventions by both the government and non-state actors, as well as through policies that promote self-employment through the establishments of micro-, small- and medium-sized enterprises and macro-economic policies that stimulate employment growth such as skills development, state employment boards, job subsidies etc.

2.2 Theoretical Review

In the quest to identify the driving forces that determines economic growth, economists starting from the classical economists to neoclassical economists, Keynesian economists to contemporary economists have postulated various theories and models of economic growth with different factors identified as determinants of growth. The role of microfinance in alleviating poverty, stimulating economic growth, and creating jobs can be examined under few growth theories. The relevant theories are: innovation theory by Joseph Schumpeter (1934), theory of economic growth by Arthur Lewis (1954) and Walt Rostow, (1960). These theories are related to entrepreneurship, labour, capital accumulation, and the financial markets.

2.2.1 Models of Microfinancing

A. The Grameen Solidarity Group Models

Solidarity group lending has been a pillar of microfinance ever since its introduction in Bangladesh in the seventies by Muhammad Yunus (1976), pioneer **of** the Grameen Bank. This model is based on the mode of operations of Grameen Bank of Bangladesh. The bank was founded in 1983 as an independent specialized bank after a successful trial operation of six years providing loan credit to the rural poor, especially women in Bangladesh, which was supervised by Professor Muhammad Yunus and financed by the Janata Bank. The Grameen Bank operations started by focusing on informal lending to the poor people. It was set up to grant credit to people who could not secure loan from the formal commercial banking system because they do not own land. The bank was established

with the aim of improving the economic status of the rural poor by providing self-employment opportunities for them.

Grameen Bank loans are not collateralized like that of commercial banks, rather, they are granted to a group while it is monitored by group members and pressurised to secure repayment. The loans are distributed by the banking units of another group consisting of five members that apply for loan. Individual members of a group are loaned but they are held liable collectively for the repayment. Firstly, the loan is granted to two members. If they repay the loan, it would be granted to the next two members after four to six weeks. The last member of the group would only be granted loan if the other members had repaid theirs.

Loan repayment by each member gives opportunity to other members to secure loan and the circle continues if all members are successfully repay back their loans. However, if a member defaults, no other member of the group will be eligible to receive further loan. Six to eight groups are organized into a community called the "centre" and this constitutes the second tier level of participation with a Bank official meeting all the eight groups. This centre has its own chief and group leader (Khan & Rahman, 2007). Small amount of loan (US $100) is granted to a single borrower for a year and the bank requires a repayment of 10 percent rate per week. This repayment encourages them to save more income. The loans are granted to finance productive ventures chosen by a member with the support of the group members (Owualah, 1999). This is structured according to the principle of collective guarantees or group guarantee mechanism**,** close monitoring and pressure from other members of the group. The model has been quite successful with the bank operating in favour of the poor and as a social movement based on principles of awareness and training, which has facilitated active participation by the poor.

B. Non-Government Organization (NGO) Model

The non-Government Organization (NGO) model developed by Grameen Bank (2000). This is also an informal model as it adapts the Grameen principles and is usually gender-based and sectoral specific. There are women groups, farmer's union groups, trader's union groups etc. NGOs are established based on the principles of Grameen bank in different countries of the world with different names, e.g. Lift Above Poverty (LAPO) is an example of NGO that adopts the Grameen Bank's method of granting loan facilities to the poor in Nigeria.

LAPO concentrates on supporting the poor, particularly for women, to improve their socio-economic status. It does not only operate as a microcredit institution, but also help its clients to solve problems aside lack of funds including illiteracy and environmental degradation which often aggravate poverty (Roli, 2012). MFIs that are legally NGOs are also regulated by the Central Bank. They are not permitted to collect savings deposit from their clients. Only regulated institutions are allowed to accept deposits and pay interest on their clients' savings. This is a major limitation that NGOs face. Accepting deposits benefits an MFI in a number of ways; it is attractive to customers who desire a reliable and formal banking, in addition to being a major source of revenue

for the MFIs because like every other bank, they perform savings mobilisation and credit creation role while making decent profit in the process. In Ghana and Gambia, the most successful micro credit programs with these features are women finance association. The programs were reported to have had high rate of repayment.

2.2.2 Theories of Poverty

Poverty is a social phenomenon that has attracted the interest of researchers. Poverty reduction programmes and policies have been designed based on theories that support such interventions. The pattern of poverty has a direct relationship and the alleviation measures that is, adopted (Bradshaw, 2005). Poverty alleviation strategies require a thorough assessment and a good knowledge of how the key factors influence the welfare of households (Anyanwu, 2014). Thus, poverty theories are divergent generating different intervention strategies. This section is devoted to the discussion of some relevant theories of poverty such as: the culture of poverty, individual deficiency theory, progressive social theory, geographical disparities theory, and the vicious circle theory.

A. The Culture of Poverty

This concept was designed by Oscar Lewis, an American anthropologist, based on his study of the urban poor in Mexico and Puerto Rico. Culture of poverty is a pattern of life, which people adopt as a community, and is passed from one generation to the next. People adopt a submissive attitude that makes that feel marginalized, helpless and inferior. Family life usually ends in divorce resulting in the abandonment of the children and their mother. Such individuals do not engage in community life by participating in voluntary associations, self-help initiatives and politics (Bradshaw, 2005). They adopt small use of banks, hospitals and other facilities to enhance their welfare and well-being. Perceptions may be influenced by religious doctrines or cultural beliefs to the extent that people are not psychologically prepared to take advantage changes or available opportunities (Ryan, 1976). Dangerous practices and values are inculcated and perpetuated from generation to generation. The Poverty Culture is rampant in developing countries and societies in the early stages of civilisation as well as among the lower class in advanced capitalist societies. It is in response to low income and lack of opportunities with people living for today and hoping rather than striving to be successful.

In Nigeria, the culture is cultivated by the people due to weak governance, impunity, systemic failures, illiteracy, income inequality, unemployment and corruption. It has manifested in their low standard of living, poor orientation, high rate of social ills, political instability, and abuse of religion. Politicians and government officials in the country are selfish, greedy and corrupt. They enrich themselves by looting the commonwealth of the nation. Corruption in Nigeria is deep rooted in the country's history and has been a topic of discourse by many analysts (Aluko, 2002; Dike, 2005; Enakhimion, 2011; Hope Sr, 2017; Ogbeidi, 2012; Ogundiya, 2009; Okoosi-Simbine, 2011; Osoba, 1996; Salisu, 2000; Tignor, 1993). Unfortunately, majority of the populace are unenlightened and gullible, there is shallow intellectualism and sentimentalism giving

room for corruption to thrive (Oshewolo, 2010). Accountability in public and community service is virtually non-existent. Greed and selfishness are embedded in the psyche of an average Nigerian leader. As a result, funds meant for development are often grossly mismanaged and embezzled by corrupt government officials. Good values and hard work are unrewarded while ill-gotten wealth is lauded and celebrated. Indiscipline, extortion, bribery and corruption, nepotism, favouritism, and tribalism are acceptable (Smith, 2010). Rule of law is often disregarded and principles of checks and balances are manipulated by the privileged few in their favour. Politics is perceived as very lucrative, and it is seen an opportunity to be wealthy or relevant in the society rather than a call to service. It is characterized by 'godfatherism', imposition of unpopular candidates and sycophancy. Ewhrudjakpor (2008) opines that Nigeria is socio-economically backward despite her abundant oil wealth. He revealed that 70 percent of the population of the country is still under the scourge of poverty. He recommended that government must legislate against inappropriate behaviour and corruption of government officials to overcome poverty.

B. Individual Deficiency Theory

This theory attributes poverty to individual deficiencies. It is assumed that the poor are to blame for their socio-economic status due to laziness and bad choices. The theory also ascribes poverty to lack of certain genetic attributes, intelligence and even punishment from God for sins committed. This ideology is also reinforced by Neo-classical economists who assume that individuals are responsible for their choices in maximizing their wellbeing through wise investment. The theory cast the poor as a moral hazard with claims that poverty persist because they are not doing enough or are engaging in activities that are counterproductive (Gwartney & McCaleb, 1985). It is believed that poverty reduction can be achieved through hard work, skills acquisition, resilience, and motivation.

This theory can be applicable to the Nigerian context. Poverty has been aggravated in the country by failure of citizens to take charge of their destinies so that they can have a brighter. Failure of people to acquire adequate skills and training could lead to loss of career opportunities and result in poverty. In analysing how individuals make wrong choice that inflict poverty, Dike (2009) explains that the wrong attitude and mentality towards technical and vocational subjects by youths in Nigeria makes them "*...lack the skills and knowledge to compete effectively in the rather tight labour market and thus loiter around in the villages and cities from dawn to dusk looking for jobs that are not available*". Failure to enrol in schools, laziness, indiscipline and engagement in crime and other social ills are personal choices that could result in poverty for individuals. Such could have far reaching adverse effects on an individual's household as the economic status of parents have a strong impact on the opportunities and academic performance of their children (Osonwa, Adejobi, Iyam, & Osonwa, 2013). Poverty induced by individual deficiencies can be alleviated if all stakeholders including the government and policy makers provide the needed support; opportunities and incentives that will help the people make right choices to evade poverty.

2.2.3 Theories of Economic Growth

A. Schumpeter's Theory of Economic Growth

Schumpeter's theory of economic growth identified the entrepreneur or innovator as the main driving force of economic growth. According to Schumpeter, the function of the entrepreneur was innovation i.e. the introduction of new combinations of factors in new processes (Thanawala, 1994). Schumpeter listed the five major forms of innovations as: *"(1) The introduction of a new good . . . or of a new quality of good. (2) The introduction of a new method of production. . . (3) The opening of a new market... whether or not this market has been existed. (4) The The conquest of a new source of supply of raw materials or half manufactured goods, again irrespective of whether this source already already exists... (5) The carrying out of the new organization of any industry..."* (Thanawala, 1994).

According to Schumpeter (1934), it is the innovation or creativity of the entrepreneur that brings about growth and development. He described the entrepreneur as "*hero of development*" (Pietak, 2014; Rimmer, 1961). The entrepreneur obtains loans from the capitalists who are outside the production process, and appropriate the factors of production which are necessary to carry out the production process (Thanawala, 1994). The assumptions underlying Schumpeter's theory of economic growth are that private-ownership of property is allowed, existence of a competitive market, and that the financial market is efficient to support the production of new inventions. In essence, the banking system including microfinance banks and institutions play major parts in the economic growth and development of a country by giving financial support to Entrepreneurs who are the owners of Small and Medium Scale Enterprises that are engine of growth especially in developing countries. However, the conditions of Schumpeter's theory are not often met in countries that lack democratic system and a developed economy (Rimmer, 1961).

B. Rostow Growth Model

The growth theory developed by Walt Rostow in 1960 was similar to that of Lewis in the sense that economic growth was associated with capital accumulation. Rostow identified five stages of growth which are: traditional society; preconditions for take-off; take-off; drive to maturity; and age of high mass consumption (Parr, 1998). At the stage of the traditional society, larger proportion of available resources is used for food production while the remaining are used for non-productive purposes such as war, religion activities etc (Parr, 1998). Capital accumulation is minimal and little support is given to individuals or groups that might initiate economic change. Science and technology are not well developed as such innovation is not a regular feature in the economy (Parr, 1998). In the preconditions for take-off stage, social-overhead capital is developed, there is rationalisation and modernisation of agriculture, and importation of capital goods financed with the proceeds from agricultural or raw-materials exports (Parr, 1998). In the take-off stage, economic growth becomes the normal condition which according to Rostow can only be achieved when there is increase in the rate of investment to 10.5-12.5% of the Net National Product (NNP), there is at least one leading manufacturing sector. Such a sector, which is regarded as a "primary sector", must employ latest

technologies and must have the capacity to stimulate growth in "supplementary sectors" (through forward and backward linkages) as well as in "derived growth sectors".

Another important feature of this stage is the presence of institutional framework that supports the leading sector and aids its diffusion effects on the whole economy (Parr, 1998). In the drive to maturity stage, modern production techniques, if not more technical sophistication, are being used in all other sectors of the economy which would have also become important as the leading sector(s) in the early stages. The final stage; age of high mass consumption is characterised by accumulation of economic surplus; availability of several options; extension of social welfare and social overhead capital; strive for world power and prestige; exportation of capital equipment and technical expertise; and emphasise on a particular pattern of consumption (Parr, 1998).

C. Keynes Theory of Income, Output and Employment

Keynes theory stresses the role of savings and investment in economic growth, and his theory is established on the assumption that they are only equal at the equilibrium level of income. The interplay between savings and investment is moderated by the adjustment mechanism of income rather than the classical view of interest rate. When savings is more than investment, it is believed that income will fall which will therefore reduce investment until it is equal to savings; and when investment is more than savings, income will rise. This dynamic adjustment process between income, savings, and investment will continue until when savings and investment are not only equal but also in equilibrium (Jhingan, 2002). The central contention of Keynes theory is that aggregate demand which is determined by consumption and investment, is fundamental in the determination of equilibrium output (Palley, 1997). In equilibrium, the aggregate demand is equal to the aggregate supply. In the event of imbalance between the two, it is believed that supply will adjusts over time until equilibrium is restored. According to Palley, (1997), this implies that equilibrium supply is demand determined though the adjustment process generates feedback effects on demand. When this is applied to the growth context, it implies that economic growth is determined by the growth rate of aggregate demand growth.

It is evident from Keynes theory that capital accumulation in the form of savings through the banking system plays an important role in alleviating poverty and stimulating economic growth which would subsequently lead to employment creation based on Keynes theory of income, output and employment. So, it is expected that microfinance banking which was specifically designed to capture the unbanked especially in the rural areas will help the poor to generate income by engaging in economic activities which would contribute to the growth of economy and also help to create jobs for them with multiplier effects on the labour market.

2.3 Empirical Literature

There are a number of studies in the literature on the synergy between microfinancing, poverty alleviation and Nigeria's economic growth. Some of the most relevant ones are

reviewed in this section. However, they are presented in accordance to the objectives of this study.

The efficacy of microfinance banks operations in alleviating poverty, Hamza and Rogia (2017) conducted an assessment of the effectiveness of microfinance in reducing in poverty in Sudan with focus on outreach, sustainability, and business development. Both quantitative and qualitative data were collected for the study. The quantitative data were collected through administration of a semi-structured questionnaire and from the records of Savings and Social Development Bank (SSDB) while the qualitative data were collected through personal interviews. The results of the analyses revealed that microfinance impacted positively on business development through increased employment but its impact on outreach to poor people and sustainability was found to be moderate. Also, Ejefobihi, Imoagwu and Ezeanyeji (2019) established the microfinance and financial inclusion nexus in Nigeria from 1981 to 2017. The Augmented Dickey-Fuller (ADF) test, co-integration test and Error Correction Model (ECM), as well as diagnostics and stability test were employed in the analysis. The research findings revealed that microfinance has positive significant effect on financial inclusion in Nigeria in the short–run and long–run. This finding is in line CBN objectives for the establishment of microfinance banks. The effect of lending interest rate has a positive but has no significant with financial inclusion in the model one while it is statistically significant with poverty in Nigeria in the mode two. The positive lending interest rate has a statistically significant effect on the level of financial inclusion and national poverty index used as a proxy for poverty rate in the long run in the models. Also, the research also found that microfinance has really a tool to fight against poverty in Nigeria in the short-run, while it's not really a tool to fight against poverty in the long-run in Nigeria.

Using Augmented Dickey-Fuller Unit Root test, Johansen cointegration test and Error Correction Model (ECM), Usifoh and Ezeanyeji (2017) focused impact of the microfinance banks as a panacea for poverty alleviation and economic growth in Nigeria from 1992 – 2016. The study established that the asset of microfinance has significant effect on poverty alleviation and economic growth in Nigeria. Also, the deposit liabilities of microfinance banks have positive but insignificant effect on poverty alleviation and economic growth in Nigeria and finally, loans and advances of microfinance banks have negative significant effect on poverty alleviation and economic growth in Nigeria. Usifoh and Ezeanyeji (2017) concluded that the activities of the microfinance banks cannot be undermined in the pursuance of poverty alleviation and sustainable economic growth in Nigeria. Similarly, Ezeanyeji and Ozughalu (2014) points out that Nigeria is plagued with pervasive poverty, high level of underdevelopment, poor performance of the manufacturing sector and poor level of competitiveness, among others. In the same vein, Ezeanyeji, Imoagwu and Ejefobihi (2019) underscores the synergy and importance of entrepreneurship as a realistic mechanism for poverty reduction in Nigeria for efficient and sustainable economic growth, balanced regional development, job creation and changing life style as in vibrant economies of Europe and Asia. Through this conceptual analysis, the synergy between poverty and entrepreneurship were discussed as well as ways of promoting entrepreneurship among Nigerians for Nation building.

Ugochukwu and Onochie (2017) who employed the Ordinary Least Squares (OLS) regression technique to examine the impact of micro-credit on poverty reduction in Nigeria between the period 1999 and 2008. The results showed that microfinance banks lending has a direct relationship with the poverty level in the country. This finding is collaborated by that of Okafor, *et al*., (2016) applied Error Correction Model (ECM) analytical technique to investigate the effectiveness of microcredit in reducing poverty in Nigeria. In the study, the relationship between microfinance banks size and poverty trend was examined. The study was restricted to the period between 1999 and 2014. Although microfinance banks' size was found to have positive impact on poverty alleviation, microcredit has an insignificant negative impact on poverty alleviation in Nigeria. Furthermore, interest rate was found to have significant negative impact on poverty reduction in Nigeria as expected theoretically.

A study by Lawanson (2016) assessed the effectiveness of microfinance institutions in reducing poverty in Nigeria. Ordinary Least Squares (OLS) estimation of regression was employed to examine the impact of microfinance banks' credits to small scale enterprises on poverty alleviation captured by Human Development Index (HDI). The other exploratory variables included in the model are: unemployment rate, inflation rate, exchange rate and interest rate. Co-integration and Error Correction techniques were used to analyse the data covering the period between 1980 and 2014. It was found that the credits granted to small scale enterprises has positive but insignificant effect on HDI in Nigeria. This is an indication that microfinance credit to small scale enterprises can reduce poverty in Nigeria, but at present, the size is too small to do so. According to Lawanson (2016), it is a revelation of the inefficiencies and excesses of micro-financing on the poverty level of Nigeria which according to her, may be due to gross fraud and mismanagement of micro-finance banks, costly fines and litigation etc.

Furthermore, effect of microfinance banks' loan advances on the growth of GDP, Murad and Idewele (2017) applied multiple regression analysis to investigate the impact of microfinance institutions on economic growth of Nigeria with data spanning from 1992 to 2012. The results showed that microfinance banks' loans have a significant positive impact on economic performance in Nigeria in the short-run but not in the long-run. However, microfinance banks' investment has a significant impact on economic performance in the long run. It could be deduced from these findings that although microfinance loans play significant role in the growth process of Nigeria, other factors such as improved agricultural production and measures that can increase per capita income are equally important in boosting the economic growth of Nigeria.

Yousuf and Mansur (2016) applied Auto-Regressive Distributive Lag (ARDL) to investigate the effect of microfinance on economic growth in Bangladesh with annual time series data spanning from 1983 to 2013. The results indicate that there is bi-directional relationship between microfinance and economic growth. This suggests that microfinance stimulates economic growth while the latter also contribute to the growth of microfinance in the country. Therefore, Yousuf and Mansur (2016) posit that microfinance is an important "ingredient" that promotes growth through various channels. Similarly, Ayodele and Kayode (2014) conducted a study to examine the impact

of microfinance on the economic growth and development of Nigeria with emphases on the primary role of microfinance institutions, which are poverty reduction and Small Scale Enterprises financing. Ordinary Least Square (OLS) multiple regression analysis was employed to analyse relevant secondary data and the results showed that microfinance activities have a significant impact on economic growth and development of Nigeria. This is an indication that microfinance can serve as a potent tool for poverty alleviation, employment generation and stimulation of economic growth if more investments are made by the microfinance institutions operating in the country.

Again on the efficacy of microfinance banks in creating job opportunities, Adama, *et al*., (2017) investigated the role of microfinance in employment generation in Karu Local Government Area of Nasarawa State, Nigeria with the aim of evaluating the performance of microfinance banks in terms of their responsibilities of providing financial services to the large segment of potentially productive population for the transformation of the rural areas. Survey research design was adopted for the study with a structured questionnaire used to collect data from a sample of One Hundred customers of two MFBs. The customers were randomly selected while the two MFBs were purposively selected. Descriptive statistics such as: simple percentage and frequency distribution were used to analyse the data and it was found that job creation is the greatest impact of microfinance banks at the Grassroots. A further analysis revealed that dearth of entrepreneurial skills in rural areas was the major problem confronting the MFBs in the area.

Ghulam, *et al*., (2017) investigated the employment effect of microfinance programme in Bangladesh using two waves of longitudinal data on over 2000 households between the periods between 1998 and 2004. The longitudinal nature of the data allowed the application of fixed effects estimation to study the effect of micro-credit programme participation on self-employment hours and household labour income. It was found that participation in micro-credit programme made households to work on average by 245 hours longer and also earn 9.4% higher labour income than non-participating households. The increased work hour was said to be equivalent to around 7 weeks of employment per person. Therefore, Ghulam, *et al*., (2017) posit that microfinance programme enhanced the employment generation capacity of participants and also boosted their income earning potential thereby reducing poverty in Bangladesh.

Okafor (2016) studied the impact of microfinance banks operations on employment generation in Nigeria using annualized time series for twenty years covering the period between 1993 and 2012. Multiple regression analysis was used for the analysis with employment rate as the dependent variable, microfinance banks activities as independent variable while liquid liability, interest rate and Federal Government capital expenditure were the controlled variables. The results showed that microfinance banks activities had a significant positive impact on employment generation in Nigeria.

3. Research Methodology

3.1 Theoretical Framework

This study was anchored on Keynes theory of income, output and employment**.** In Development Economics, one of the factors that have been identified as the causes of poverty in developing countries is low capital formation. Capital means the stock of physical reproductive factors of production. The traditional factors of production include: land, labour, capital, and entrepreneurship. Access to finance is an essential element of capital that determines the process of capital formation. Also entrepreneurship which is a skill is a form of human capital. It is an ability to identify needs and organise other factors of production to fill the needs while making profit in the process. The Keynesian theory is based on the existence of unemployment which is a state of under-utilisation of the productive resources (Keynes, 1946). Keynes argues that such condition is a panacea for the economic backwardness and one of the factors responsible for the high level of poverty in developing countries. Most of the poor in developing countries are in the rural areas where there are no accesses to financial services. It is believed that economic activities can be stimulated while poverty is reduced or alleviated if credit is made available to the poor to generate income through microfinance banks.

In Keynes model, National Income (Y) is determined by the addition of aggregate of Consumption and aggregate Savings. That is:

$$Y = C + S \quad \text{---------- (3.1)}$$

Since it is assumed that S = I then, I can substitute for S in the equation.

$$\text{So, } Y = C + I \quad \text{---------- (3.2)}$$

The income level in the equation is considered as under-employment equilibrium level since full employment level is assumed to be impossible. According to Keynes, if it happens, it is accidental (Jhingan, 2002). So under-employment equilibrium level is regarded as a normal case while full employment income level is a special case. So, in the static Keynesian model, equilibrium level of output can be varied continuously by adjusting the level of demand (Palley, 1997). For instance, the income level in equation (2) above can be increased by increasing the autonomous Investment (I), so that the new aggregate income level is:

$$Y_1 = C + I + I_1 \quad \text{---------- (3.3)}$$

The additional investment (I_1) in equation (3) above could be but not restricted to the loan granted to petty traders by Microfinance banks. In essence, higher growth rate could be achieved through the operations of Microfinance banks in a developing country like Nigeria. The investment funds generated through the banks is expected to spur economic growth. It is believed that higher aggregate income level would generate more

investments, which would lead to higher growth. In essence, the equilibrium growth rate is determined by the grate rate of demand. This is because investment spending depends on the rate of demand growth, and the level of investment spending in turn affects the rate of output growth due to its effects on the capital stock (Palley, 1997). So increased investment level would lead to increased capital stocks which would consequently generate employments through job creation. So, the activities and operations of Microfinance banks are also expected to facilitate job creation. If there if equitable distribution of income in the country, economic growth and job creation are expected to lead to higher standard of living and hence reduce poverty. Invariably, microfinance banks operations are expected to enhance poverty alleviation. However, one of the major determinants of investment in the Keynes system is rate of interest (Palley, 1997). It is in turn determined by liquidity preference and supply of money. According to Keynes, increase in money supply lowers interest rate and consequently encourages investments, increase income and level of employment. However, the demand for money also plays a significant role in the determination of interest rate. This study incorporated interest rate in the model formulation based on the premise that borrowers seek loans to expand capital in order to produce more goods and services. It is believed that they will continue to demand for more loans as long as the return on the borrowed funds exceeds the cost (i.e. interest rate on the loan) until they become equal.

3.2 Model Specification

Economic Models are formulated to understand and validate the relationships between two or more variables. It forces a researcher to think clearly about, and account for all the important interrelationships involved in a problem (Pindyck & Rubinfeld, 1997). Economic Modelling is usually based on economic theories. So, the specification of Economic Models presupposes knowledge of economic theory as well as the findings of related studies on the phenomenon being examined (Koutsoyannis, 1977). This dissertation seeks to examine the effectiveness of microfinance in alleviating poverty and subsequently stimulates economic growth and creation of employment opportunities in Nigeria.

Model I:

Addressing the first objective of the study, this model captured the effect of microfinance banks operations on poverty alleviation in Nigeria. The model was adopted from a previous study conducted by Usifoh and Ezeanyeji (2017) and Okafor, *et al*., (2016) and modified to incorporate loans to deposit ratio of microfinance bank, assets of microfinance bank, loans and advances of microfinance banks, lending interest rate and gross fixed capital formation as percent of GDP, while poverty rate was used as the dependent variable. The functional form of the model is therefore specified as follows:

$$PR = f(LDR, AMB, LLMB, LR, GCF) \quad \text{----------(3.4)}$$

The econometric form of the model can be expressed as:

$$PR = \beta_0+\beta_1 LDR+\beta_2 AMB + \beta_3 LMB + \beta_4 LR + \beta_5 GCF +\mu_t \text{----------(3.5)}$$

However, in order to reduce the problem of spurious regression in the analysis, log linear model was adopted. We thus have:

$$PR = \beta_0+\beta_1 LDR+\beta_2 LAMB + \beta_3 LLMB + \beta_4 LR + \beta_5 GCF +\mu_t \text{----------(3.6)}$$

Where;
PR = Poverty rate
LDR = Loans to deposit ratio of microfinance bank
LAMB = Log of assets of microfinance bank
LLMB = Log of loans and advances of microfinance banks
LR = Lending interest rate
GCF = Gross fixed capital formation as percent of GDP
β_0= Constant
β_1,… β_5 = Estimation parameters
μ = Stochastic error term.

Model II:
The model focused on objective 2 of the study, which is to investigate the effect of microfinance banks' loan advances on the growth of GDP in Nigeria. The model was adopted from the study of Ayodele and Kayode (2014) and was modified to incorporate assets of microfinance bank, loans to deposit ratio of microfinance bank, loans and advances granted by microfinance banks, lending interest rate and gross fixed capital formation as percent of GDP as the explanatory variables, while Growth rate of real GDP proxy for economic growth was the dependent variable. The functional form of the model is therefore specified as follows:

$$GRGDP = f(AMB, LDR, LMB, LR, GCF) \text{ ----------(3.7)}$$

In econometrics, equation (3.7) above is insufficient due to the absence of error term. The functional relationship in the model can be expressed in linear regression model by introducing constant and error term. Hence, it is expressed thus:

$$GRGDP = \alpha_0+ \alpha_1 AMB + \alpha_2 LDR + \alpha_3 LMB + \alpha_4 LR + \alpha_5 GCF + \mu_t \text{----------(3.8)}$$

The linearized form of equation of equation (3.5) is gotten by taking logarithms which is then specified as:

$$GRGDP = \alpha_0+ \alpha_1 LAMB + \alpha_2 LDR + \alpha_3 LLMB + \alpha_4 LR + \alpha_5 GCF + \mu \text{----------(3.9)}$$

Where;
GRGDP = Growth rate of real GDP proxy for economic growth
LAMB = Log of assets of microfinance bank
LDR = Loans to deposit ratio of microfinance bank
LLMB = Log of loans and advances granted by microfinance banks
LR = Lending interest rate
GCF = Gross fixed capital formation as percent of GDP
α_0= Constant
$\alpha_1 - \alpha_5$ = Estimation parameters
μ = Stochastic error term.

Model III:
The model captured the objective three (3) of the study, which is to probe the efficacy of microfinance banks in creating job opportunities in Nigeria. In view of this, the model was adopted from the study of Okafor (2016) and modified to incorporate assets of microfinance bank, loans to deposit ratio of microfinance banks, loans and advances of microfinance banks, Government recurrent expenditure, lending interest rate and gross fixed capital formation as percent of GDP as the explanatory variables, while employment rate was used as the dependent variable. The functional form of the model is therefore specified as follows:

ER= f(AMB, LDR, LMB, GE, LR, GCF)----------(3.10)

Econometrically, the above equation 3.7, becomes

$ER= \lambda_0 + \lambda_1 AMB + \lambda_2 LDR + \lambda_3 LMB + \gamma_4 GE + \lambda_5 LR \lambda_6 GCF + \mu$----------(3.11)

However, in order to reduce the problem of spurious regression in the analysis, log linear model was adopted. The model can be stated thus:

$ER= \lambda_0 + \lambda_1 LAMB + \lambda_2 LDR + \lambda_3 LLMB + \lambda_4 LGE + \lambda_5 LR \lambda_6 GCF + \mu$ ----------(3.12)

Where;
ER = Employment rate
LAMB = Log of assets of microfinance bank
LDR = Loans to deposit ratio of microfinance banks
LLMB = Log of loans and advances of microfinance banks
LGE = Log of Government recurrent expenditure
LR = Lending Interest Rate
GCF = Gross fixed capital formation as percent of GDP
λ_0 is the intercept
λ_1 to λ_5 represents the slope coefficients
μ is the stochastic term or the error term.

3.3 Method of Analysis

A. Unit Root Test

To avoid spurious regression, a pretest for stationarity of variables is necessary (Osuala, 2010). Thus, it is possible that many series that you would have thought were stationary based on ARDL model regression were through random walks (Cochrane, 2005). All the variables shall be subjected to unit root test using the Augmented Dickey Fuller (ADF) test suggested by Gujarati (2004). The choice of lag will be determined by Akaike information criteria. The unit root test was evaluated using the Augmented Dickey-Fuller (ADF) unit root test: The following equation was used to ascertain the stationarity of time series data used in the study.

$$\Delta Y_t = \beta + y_t + pY_{t-1} + \sum^k \Delta Y_{t-I} + \mu \text{----------} (3.13)$$

Where; Y_t: Individual time series, Δ: First difference operator, k: the lag order, t: the time trend, β: the coefficient of constant and μ: the serially uncorrelated random error term with zero mean and constant variance. The guideline of ADF testing approach states that, if p is not significantly different from zero the time series has a unit root, otherwise, not.

3.4 Bound Testing Approach for Co-integration

This study applied ARDL approach developed by Pesaran, *et al*., (2001) to estimate the link among the variables. The rationale behind the application of this method are that: firstly, it can be applied irrespective of whether the series are stationary at level I(0) or after first difference I(1) or combination of both. Secondly, it is capable of generating robust and reliable results regardless of whether the sample size is small or large. Finally, it generates long run and short run result at the same time (Pesaran, *et al*., 2001). The analysis in this study started with bound test of the ARDL to confirm the existence of long run relationship. The calculated F-statistics is compared with the Critical Value from the table produced by Pesaran, *et al*., (2001). If F-statistics is higher than the upper critical value, the null hypothesis would be rejected indicating that there is no long-run relationship; if it is lower than the lower critical value, the null hypothesis would not be rejected; if it in-between these two critical bounds, the result would be inconclusive (Pesaran, *et al*., 2001). Furthermore, the unrestricted error correction model (UECM) seems to take satisfactory lags that captures the data generating process in a general-to-specific framework of specification (Laurenceson & Chai, 2003). However, Pesaran and Shin (1999) contented that "*appropriate modification of the orders of the ARDL model is sufficient to simultaneously correct for residual serial correlation and the problem of endogenous variables*".

The UECM is being constructed to examine the long-run and short-run relationships among the variables:

Model I:

$$\Delta \ln PR_t = \alpha_0 + \alpha_1 T + \alpha_{DR} \ln DR_{t-1} + \alpha_{AMB} \ln AMB_{t-1} + \alpha_{LMB} \ln LMB_{t-1} + \alpha_{LR} LR_{t-1} + \alpha_{GCF} GCF_{t-1} + \sum \beta_i \Delta \ln PR_{t-i} + \sum \delta_j \Delta \ln DR_{t-j} + \sum \phi_K \Delta \ln AMB_{t-k} + \sum \omega_l \Delta \ln LMB_{t-l} + \sum \omega_m \Delta LR_{t-l} + \sum \gamma_p \Delta GCF_{-m} + \mu_t \text{----------(3.14)}$$

Model II:

$$\Delta GRGDP_t = \beta_0 + \beta_1 T + \beta_{AMB} lnAMB_{t-1} + \beta_{DR} lnDR_{t-1} + \beta_{LMB} lnLMB_{t-1} + \beta_{LR} LR_{t-1} + \beta_{GCF} GCF_{t-1} + \sum \beta_i \Delta GRGDP_{t-i} + \sum \delta_j \Delta lnAMB_{t-j} + \sum \phi_K \Delta lnDR_{t-k} + \sum \omega_l \Delta \ln LMB_{t-l} + \sum \gamma_m \Delta LR_{t-m} + \sum z_n \Delta GCF_{t-n} + \mu_t \text{----------(3.15)}$$

where T is trend[c]

Model III:

$$\Delta ER_t = \Lambda_0 + \Lambda_1 T + \Lambda_{DR} lnAMB_{t-1} + \Lambda_{DR} lnDR_{t-1} + \Lambda_{LMB} lnLMB_{t-1} + \Lambda_{GE} lnGE_{t-1} + \Lambda_{LR} LR_{t-1} + \Lambda_{GCF} GCF_{t-1} + \sum \Lambda_i \Delta ER_{t-i} + \sum \delta_j \Delta lnDR_{t-j} + \sum \phi_K \Delta lnLMB_{t-k} + \sum \omega_l \Delta \ln GE_{t-l} + \sum \gamma_m \Delta LR_{t-m} + \sum Z_n \Delta GCF_{t-n} + \mu_t \text{----------(3.16)}$$

The decision about cointegration is based on the computed F-statistic. The critical bounds to compare with the F-statistic have been tabulated by Pesaran, Shin and Smith (2001) and later by Narayan (2005) for small samples. The upper critical bound (UCB) is based on the assumption that all variables are integrated at 1(1) and the lower critical bounds (LCB) variables should be integrated at level. If UCB is lower than the *f*-statistic, then the decision is in favor of cointegration among the variables. This indicates the existence of long run relationship among the variables. If the *f*-statistic is less than LCB, then it favours no cointegration among the variables. The decision about cointegration will be inconclusive if the *f*-statistic falls between UCB and LCB. In such situation, we will have to rely on the finding of lagged error correction term (ECT) for cointegration to investigate the long run relationship. If there is long run relationship among the variables, the short run behaviour of variables is investigated by the following ECM:

Model I:

$$\Delta \ln PR_t = \delta_1 + \sum_{i=0}^{m} \delta_2 \Delta \ln PR_{t-i} + \sum_{m=0}^{n} \delta_3 \Delta \ln DR_{t-j} + \sum_{j=0}^{o} \delta_4 \Delta \ln AMB_{t-k} + \sum_{k=0}^{p} \delta_5 \Delta \ln LR_{t-l} + \sum_{l=0}^{q} \delta_6 \Delta GCF_{t-m} + \Lambda ECM_{t-1} \text{-------(3.17)}$$

Model II:

$$\Delta \ln GRGDP_t = \delta_1 + \sum_{i=0}^{e} \delta_2 \Delta \ln GRGDP_{t-i} + \sum_{m=0}^{f} \delta_3 \Delta \ln AMB_{t-i} + \sum_{j=0}^{g} \delta_4 \Delta \ln DR_{t-j} + \sum_{k=0}^{h} \delta_5 \Delta \ln LMB_{t-k} + \sum_{i=0}^{i} \delta_6 \Delta LR_{t-l} + \sum_{j=0}^{j} \delta_7 \Delta GCF_{t-n} + \Lambda ECM_{t-1} + \mu_t \text{----------(3.18)}$$

Model III:

$$\Delta \ln ER_t = \delta_1 + \sum_{i=0}^{r} \delta 2\, \Delta \ln ER_{t-i} + \sum_{m=0}^{s} \delta 3\, \Delta \ln AMB_{t-I} + \sum_{j=0}^{t} \delta 3\, \Delta \ln DR_{t-i} + \sum_{k=0}^{u} \delta_4 \Delta \ln LMB_{t-j} + \sum_{l=0}^{v} \delta_5 \Delta \ln GE_{t-k}$$

$$+ \sum_{J=0}^{w} \delta_6 \Delta LR_{t-l} + \sum_{k=0}^{x} \delta_7 \Delta GCF_{t-n} + \lambda \mathrm{ECM}_{t-1} + \mu_t \text{----------(3.19)}$$

Where, *m, n, 0, p, q, r, s; e, f, g, h, i, j*, k and *r, s, t, u, v, w, x* are the lag length of the variables respectively which is selected following AIC criteria. It is documented that if the value of lagged ECM is between 0 and -1, then adjustment to the dependent variable in current period is the ratio of error in the previous period. In such situation, ECM causes the dependent variable to converge to long span equilibrium due to variations in the independent variables.

3.5 Diagnostic and Stability Test

To ascertain the robustness of a model, the standard practice is to conduct stability and diagnostic test. The intent of the test is to probe the stability of the coefficient estimate as the sample size increases. The purpose for this is to find out whether the estimates will be different in large samples and whether they will remain stable over. The stability of the estimated model is assessed using the methodology of Cumulative Sum (CUSUM) and the Cumulative Sum of Squares (CUSUMQ) test proposed by Brown, *et al*., (1975). If the plot of the CUSUM and CUSUMQ are within 5% significance level (represented by two lines), the coefficient estimates are adjudged stable. Furthermore, the diagnostic test includes serial correlation, Autoregressive Conditional heteroskedasticity (ARCH), normality of the residual, functional form specification, and heteroskedasticity test statistics.

3.6 Nature and Sources of Data

Time-series data covering the period between 1992 and 2018 were used for this study. The choice of period was due to the fact the implementation of the microfinance policy and other poverty alleviation programmes were executed during this period. The data were sourced from secondary sources such as Central Bank of Nigeria Statistical Bulletin, Volume 29, 2018; and National Bureau of Statistics (NBS) Social Statistics in Nigeria. Data for focus variables were collected and used to determine the synergy between microfinancing, poverty alleviation and Nigeria's economic growth during the stated in order to recommend policy options.

4. Presentation and Analysis of Results

4.1 Unit Roots Test

The knowledge of the time series properties of the variables of interest is important in order to obviate the possibilities of spurious regression. This was implemented using the conventional – Augmented Dickey-Fuller (ADF) unit root test.

Table 4.1: Unit Root Tests Using ADF Statistic Test

Model 1							
Models	**Variables**	**ADF-Statistic**	**1% Critical Value**	**5% Critical Value**	**10% Critical Value**	**Order of Int.**	**Durbin-Watson stat**
Model I	PR	-5.280548	-3.752946	-2.998064	-2.638752	1(2)	2.238543
	LDR	-5.170672	-3.737853	-2.991878	-2.635542	1(1)	2.201432
	LAMB	-6.736323	-3.724070	-2.986225	-2.632604	1(1)	2.281336
	LLMB	-6.497976	-3.724070	-2.986225	-2.632604	1(1)	2.306035
	LR	-6.013687	-3.711457	-2.981038	-2.629906	1(0)	1.745051
	GCF	-5.126194	-3.737853	-2.991878	-2.635542	1(1)	1.969901
Model 2							
Model II	LRGDP	-5.743494	-3.724070	-2.986225	-2.632604	1(1)	1.971536
	LAMB	-6.736323	-3.724070	-2.986225	-2.632604	1(1)	2.281336
	LDR	-5.170672	-3.737853	-2.991878	-2.635542	1(1)	2.201432
	LLMB	-6.497976	-3.724070	-2.986225	-2.632604	1(1)	2.306035
	LR	-6.013687	-3.711457	-2.981038	-2.629906	1(0)	1.745051
	GCF	-5.126194	-3.737853	-2.991878	-2.635542	1(1)	1.969901
Model 3							
Model III	ER	-5.113021	-3.831511	-3.029970	-2.655194	1(1)	2.079965
	LDR	-5.170672	-3.737853	-2.991878	-2.635542	1(1)	2.201432
	LLMB	-6.497976	-3.724070	-2.986225	-2.632604	1(1)	2.306035
	LGE	-9.473293	-3.724070	-2.986225	-2.632604	1(1)	1.425347
	LR	-6.013687	-3.711457	-2.981038	-2.629906	1(0)	1.745051
	GCF	-5.126194	-3.737853	-2.991878	-2.635542	1(1)	1.969901

Source: Author's Compilation (E-View 9 Output).

A result of diagnostic test for unit root is presented in table 4.1 above. The result established that lending interest rate (LR) is stationary at levels, that is, 1(0) in the respective models. Also, loans to deposit ratio (LDR), assets of microfinance bank (LAMB), loans and advances of microfinance banks (LLMB), gross fixed capital formation as percent of GDP (GCF), real gross domestic product proxy for economic growth (GRGDP) and employment rate (ER) were not stationary at levels but were significant at first difference. Hence, by taking their first difference they became stationary, that is, 1(1) in the respective models, while the poverty rate is stationary at second difference, that is 1(2). The result indicates that the variables were integrated of different orders. ADF Statistic test for each of the variable is less than the critical values at 1%, 5% and 10%. This suggests a need to examine the existence or otherwise of some pattern of long-run association among these variables. It has been argued, in the time-series literature, that there is a possibility that some linear combination of non- stationary variables may be mean-reverting. This result is consistent with other empirical work in macroeconomic literature. Hence, to confirm the reliability of this result, the Durbin Watson statistic value for each variable is significant at approximately 2.00, which means, confirms the absence of autocorrelation problem in the time series data in the respective models.

Furthermore, on the ADF test the condition for Johansen cointegration test is not met. This kind of conflict between the outcomes of the two tests is common in practice (Shahbaz & Rahman, 2012). According to Ouattara (2004), the bounds test approach is

valid only when the variables are a mix of I(0), I(1) and 1(2) in the respective models. Therefore, we can safely go ahead with the bounds test. This technique was selected for two main reasons: First, it is effective in executing the short- and long-term relationships between the different variables that do not have the same order of integration, provided that such variables are stationary in level; I (0), and/or they are stationary in the first difference; I (1) and second difference, 1(2). Second, the ARDL approach can remove the problems associated with omitted variables and auto-correlation. Third, it can be useful for a small sample size application. Thus, the study applies ARDL bounds testing approach to cointegration to test long run relationship between the variables.

4.2 ARDL Bounds Test for Cointegration

Since the result of ADF unit root test showed that the series used in this study are either I(1), 1(1) or I(0), the consideration of ARDL Bounds test for cointegration is plausible. The model utilises both the *F*- and *t*-statistics to test the significance of lagged levels of the variables in a univariate error correction system when it is unclear if the data generating process underlying a time series is trend or first difference stationary. The result for this Bound test is given as follows.

Table 4.2: Result for the Bound Test for the Models

Models	Functional Form	F-statistic Value	K	Critical Values Bounds		
				Significance	10 Bound	I1 Bound
Model I	PR = *f*(LDR, AMB, LLMB, LR, GCF)	5.083852	5	10%	2.26	3.35
				5%	2.62	3.79
				2.5%	2.96	4.18
				1%	3.41	4.68
Model II	GRGDP = *f*(AMB, LDR, LMB, LR, GCF)	6.359205	5	10%	2.26	3.35
				5%	2.62	3.79
				2.5%	2.96	4.18
				1%	3.41	4.68
Model III	ER= f(LDR, LMB, GE, LR, GCF)	5.365343	6	10%	2.12	3.23
				5%	2.45	3.61
				2.5%	2.75	4.99
				1%	3.15	4.43

Source: Author's Compilation (E-views 9 Output).

The bound test for co-integration test reveals that there is long run relationship associated with poverty rate (PR), loans to deposit ratio (LDR), assets of microfinance bank (LAMB), loans and advances of microfinance banks (LLMB), lending interest rate (LR), gross fixed capital formation as percent of GDP (GCF), real gross domestic product proxy for economic growth (GRGDP), employment Rate (ER) and Government recurrent expenditure (LGE) at 5% level of significance. This indicates that the *F*-statistic for this Bound test is 5.083852, 6.359205 and 5.365343 respectively in the models, which is greater than the critical values of both the lower and the upper bounds at all levels of significance, respectively.

4.3 Long-run Results

The findings for the long-run coefficient of the variables under investigation are estimated using the optimal ARDL model selection according to the AIC criterion. The long-run elasticities and its corresponding coefficients of the models are given below.

Table 4.3: Estimated Long-run Coefficients based on ARDL Approach for the Respective Models

	Regressor	Coefficient	Std. Error	t-Statistic	Prob.
	Dependent Variable: PR				
Model I: ARDL (1, 0, 1, 2, 0, 0)	LDR	0.867963	0.280024	3.099599	0.0078*
	LAMB	-0.048350	8.942347	-0.005407	0.9958
	LLMB	-6.216395	9.496226	-0.654617	0.5233
	LR	0.655261	0.839294	0.780730	0.4480
	GCF	0.037631	0.868955	0.043306	0.9661
	C	61.269994	26.830054	2.283633	0.0385*
	R-squared = 0.796552	Adjusted R-squared = 0.651232	F-statistics = 5.481362	Prob (F-statistics) = 0.002183	Durbin Watson = 2.378299
	Dependent Variable: GRGDP				
Model II: ARDL (1, 0, 1, 2, 0, 0)	LAMB	2.985141	5.205100	0.573503	0.5748
	LDR	-0.187600	0.126929	-1.477996	0.1601
	LLMB	-1.037864	5.325480	-0.194887	0.8481
	LR	1.230800	0.695696	1.769164	0.0972
	GCF	-0.053135	0.503417	-0.105549	0.9173
	C	-23.512002	16.730103	-1.405371	0.1803
	R-squared = 0.714801	Adjusted R-squared = 0.543681	F-statistics = 4.177196	Prob (F-statistics) = 0.007318	Durbin Watson = 2.357668
	Dependent Variable: ER				
Model III: ARDL (2, 2, 2, 2, 1, 0, 2)	LAMB	23.262078	8.536131	2.725131	0.0295*
	LDR	0.198620	0.133833	1.484091	0.1814
	LLMB	-14.923295	4.027282	-3.705547	0.0054
	LGE	-13.132763	1.592908	-8.244523	0.0001*
	LR	0.848358	0.209096	4.057254	0.0048*
	GCF	-2.506061	0.243734	-10.281971	0.0000*
	C	76.253300	15.393175	4.953708	0.0016*
	R-squared = 0.908238	Adjusted R-squared = 0.685388	F-statistics = 4.075554	Prob (F-statistics) = 0.033098	Durbin Watson = 2.371494

Source: Author's Compilation from E-views 9 Output
Note: * denote statistical significance at the 5% level.

The discussion of results was based on research objective stated in chapter one.

(i) Discussion of Results based on Research Objective One

The long run behaviour of the variables in the model one (1) is presented in table 4.3 above. It is also observed that the coefficient of lending interest rate (LR) and gross fixed capital formation as percent of GDP (GCF) tends to exhibit a positive but insignificant

effect on the poverty rate. This indicates that a percentage change in LR and GCF bringing about a 65.5% and 3.76% change in poverty rate holding other variables at constant. Similarly, loans to deposit ratio (LDR) found to be positive and significant effect on the poverty rate proxied as poverty rate at 5 percent level of significance. A percentage change in LDR indicates 86.79 percentage changes in poverty rate. The above evidence further implies that the degree of the responsiveness of poverty rate to the effects of the variations in LDR is seen to be strongly elastic. This shows that lending interest rate plays a significant role in poverty rate in Nigeria.

In the contrary, assets of microfinance bank (LAMB) and loans and advances of microfinance banks (LLMB) has an estimated value of -0.048350 and -6.216395 respectively and this indicates it is negatively related to poverty rate in Nigeria. A plausible explanation is that increased assets of microfinance bank and loans and advances of microfinance banks leads to decrease in to poverty rate by 4.8% and 621.6% respectively. This indicates that LAMB and LLAM have negative and insignificant effect on the poverty rate in Nigeria. Since loans and advances of microfinance banks have negative effect on poverty rate, the implication is that Microcredit granted by microfinance banks for the period under study has not really assisted in alleviating poverty in Nigeria. This finding support Ugochukwu and Onochie (2017) andOkafor, *et al*., (2016) findings, who revealed that negative relationship between microfinance lending and poverty rate in Nigeria. Furthermore, the finding in contrary to Usifoh and Ezeanyeji (2017), Hamza and Rogia (2017) and among others revealed that microfinance bank loan has positive effect on poverty rate.

Furthermore, the coefficient of determination R^2 is 0.908238 which implies that 90.8% of the variation in poverty rate in Nigeria is explained by the explanatory variables included in this model. While about 9.2% are accounted for by variables outside our model. Coincidentally, the goodness of fit of the regression remained too high after adjusting for the degree of freedom as indicated by the adjusted R^2 (R^2 = 0.685388 or 68.5%). In addition, the F-value is 4.075554 with a corresponding p-value of 0.033098, which means that the overall fitness of the model is well justified. More so, the result of DW which stands for Durbin Watson is used to determine if there is autocorrelation among residuals, since the DW has the value of 2.371494; it indicates the absence of auto correlation among the residuals. As a result of this, our models estimated can be confidently relied upon for making inferences.

(ii) Discussion of Results based on Research Objective Two

It also shows that loans to deposit ratio (LDR), loans and advances granted by microfinance banks (LLMB), and gross fixed capital formation as percent of GDP (GCF) has a negative effect on economic growth in Nigeria. A percentage increase in LDR, LLMB and GCF tends to reduce real gross domestic product by 18.7%, 103.7% and 5.3%. The negative of loans and advances of microfinance banks may be as a result of inefficient use of loans and advances given to the poor by MFBs. It is a general knowledge that the poor may divert these loans to consumption. This worsens the state of the poor. The poor though active, may not have the managerial know-how, size of loans advanced may not

be sufficient for meaningful projects and hence the diversification. Poor management of these loans and improper monitoring of the loans advanced of microfinance banks may be another reason for negative relationship between loans and advances, and economic growth in Nigeria.

In the contrary, it is also shows that assets of microfinance bank (LAMB) and lending interest rate (LR) has positive effect on economic growth. An increase in asset base of microfinance banks and lending interest rate in Nigeria will leads to 29.85% and 12.3% increase in real gross domestic product. This implies that strong capital base is necessary for microfinance banks to perform its expected roles in the economy. The assets base serves as a barometer to determine the short run and long – run operational tendency of microfinance banks. This aligned with Usifoh and Ezeanyeji (2017), Murad and Idewele (2017).

However, the coefficient of determination R^2 obtained is 0.714801. This shows that the explanatory variables included in our model accounts for 71.48 percents movement in real gross domestic product in Nigeria while the remaining 28.52 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- statistics with 4.177196 with probability values of 0.007318. This is highly significant at the 5 percent levels; thus, lending credence to the conclusion that the entire model has goodness of fit. Finally, Durbin Watson statistics (DW) value of 2.357668 shows that there is no evidence of a first order serial autocorrelation (AR(1). By rule of thumb, if the DW statistics is approximately equal to 2, it is evidence against the existence of a first order serial correlation. From empirical standpoints, the findings in this study support the results obtained in the studies of Murad and Idewele (2017).

(iii) Discussion of Results based on Research Objective Three

The plausible explanations of the empirical results of the ARDL specifications regressions presented in table 4.3 above are discussed. The coefficients of assets of microfinance bank (LAMB), loans to deposit ratio (LDR) and lending interest rate (LR) showed a positive direction as they possess coefficients of 23.262078, 0.198620 and 0.848358 respectively; indicating that where other variables are held at zero, a unit increase in assets of microfinance bank, loans to deposit ratio and lending interest rate will boost employment creation by 2326.2%, 19.86% and 84.83% respectively in the model. The result further admitted that assets of microfinance bank and lending interest rate have positive and significant effect on the employment creation in Nigeria. Also, the loans to deposit ratio has positive but statistically insignificant effect on the employment creation in Nigeria.

On the other hand, loans and advances of microfinance banks (LLMB), Government recurrent expenditure (LGE) and gross fixed capital formation as percent of GDP (GCF) has negative coefficient of -14.923285, -13.132763 and -2.506061 respectively. This indicates that every one percent (1%) increase in assets of microfinance bank, deposit liabilities of microfinance bank and interest rate over the period of study decreased, employment creation for current year in Nigeria by 1080.59%, 902.3% and 11.3% in the

model. Furthermore, Government recurrent expenditure, gross fixed capital formation as percent of GDP has negative but significant effect on the employment creation in Nigeria. Also, loans and advances of microfinance banks have a negative but significant effect on employment creation. The findings in this study support the results obtained in the studies of Okafor (2016). This means that availability of micro credit facilities tends to boost investment, increase productivity and income, hence increase employment creation in Nigeria. This is because as more funds are being made available for investment purpose, new firms will emerge while the existing ones can expand their scale of operations which then increase aggregate output as well as employment creation. While the deposit liabilities of microfinance bank, and assets of microfinance bank, interest rate and government expenditure were not statistically significant. The test is carried out at 0.05% level of significance.

The coefficient of multiple determination (R^2 = 0.908238) implies that the model exhibited high explanatory power, and is a good fit. That is, within the context of the model, about 90.8% of total variations in employment creation are explained by microfinance, and only 9.2% unexplained variations can be attributed to other factors outside our model. The adjusted R-squared (R^2 = 0.685388) shows high explanatory power still after adjustment for degree of freedom. The relevance is the need to emphasize microfinance and investment as critical factors to increase productivity and further enhance employment creation. The result revealed that, the overall regression model is significant. This is evidenced by the probability of F-statistic (0.033098), which is less than 0.05. This result is reliable as the Durbin-Watson statistic value of 2.371494 which confirm that there is no evidence of a first order serial autocorrelation (AR(1). By rule of thumb, if the DW statistics is approximately equal to 2, it is evidence against the existence of a first order serial correlation.

4.4 Short-run Results

The existence of cointegrated relationship among the variables provides more evidence for the estimation of Error Correction Term (ECM−1) of ARDL (CointEq(-1)) in the models with the view to estimate the short-run dynamics. The estimated ECM−1 for this model is shown in table 4.4 below.

Table 4.4: Short-run Coefficients based on ARDL Approach for the Respective Models

	Regressor	Coefficient	Std. Error	t-Statistic	Prob.
Model I: ARDL (2, 2, 1, 0, 0, 0)	**Dependent Variable: PR**				
	D(PR(-1))	0.466481	0.165120	2.825099	0.0135*
	D(LDR)	0.076532	0.102265	0.748368	0.4666
	D(LDR(-1))	-0.506697	0.097859	-5.177712	0.0001*
	D(LAMB)	4.957160	6.858141	0.722814	0.4817
	D(LLMB)	-3.776975	5.775938	-0.653915	0.5238
	D(LR)	0.398125	0.524574	0.758950	0.4605
	D(GCF)	0.022864	0.527430	0.043350	0.9660
	CointEq(-1)	-0.607583	0.117298	-5.179833	0.0001*
	Cointeq = PR – (0.8680*LDR – 0.0483*LAMB -6.2164*LLMB + 0.6553*LR + 0.0376*GCF + 61.2700)				
Model II: ARDL (2, 2,2, 2, 1, 0, 2)	**Dependent Variable: GRGDP**				
	D(LAMB)	1.067079	1.940703	0.549841	0.5905
	D(LDR)	-0.135875	0.033175	-4.095688	0.0010*
	D(LLMB)	-0.368520	1.752574	-0.210273	0.8363
	D(LLMB(-1))	-2.308078	0.705334	-3.272321	0.0051*
	D(LR)	0.439966	0.186428	2.359974	0.0322*
	D(GCF)	-0.018994	0.180639	-0.105148	0.9177
	CointEq(-1)	-0.357463	0.138349	-2.583789	0.0208*
	Cointeq = GRGDP – (2.9851*lamb -0.1876*LDR -1.0379*LLMB + 1.2308*LR - 0.0531*GCF -23.5120)				
Model III: ARDL (2, 2,2, 2, 1, 0, 2)	**Dependent Variable: ER**				
	D(ER(-1))	0.167826	0.080845	2.075885	0.0765
	D(LAMB)	-2.064227	2.819698	-0.732074	0.4879
	D(LAMB(-1))	-11.797719	4.551564	-2.592014	0.0358*
	D(LDR)	0.194735	0.042237	4.610547	0.0025*
	D(LDR(-1))	-0.052793	0.064461	-0.818996	0.4398
	D(LLMB)	1.651868	2.248593	0.734623	0.4864
	D(LLMB(-1))	10.878065	4.352819	2.499085	0.0410*
	D(LGE)	-4.835782	1.760174	-2.747331	0.0286*
	D(LR)	0.852793	0.182154	4.681709	0.0023*
	D(GCF)	-1.388894	0.203204	-6.834965	0.0002*
	D(GCF(-1))	1.230195	0.168895	7.283804	0.0002*
	CointEq(-1)	-1.005228	0.122238	-8.223515	0.0001*
	Cointeq = ER –(23.2621*LAMB + 0.1986*LDR – 14.9233*LLMB – 13.1328*LGE + 0.8484*LER -2.5061*GCF = 76.2533)				

Source: Author's Compilation (E-views 9 Output)
Note: * denote statistical significance at the 5% level.

(i) Short-run Discussion of Results based on Research Objective One

The value of loans to deposit ratio of microfinance banks (LDR), assets of microfinance bank (LAMB), lending interest rate (LR) and gross fixed capital formation (GCF) have positive but insignificant effect on poverty rate in Nigeria. This implies that one percent increase in LDR, LAMB, LR and GCF will declines poverty rate in Nigeria by 0.76%, 495.7%, 39.8%, and 0.22% respectively. Furthermore, in the short run, the value of lagged one of loans to deposit ratio of microfinance banks (LDR) has negatively and statistically

significant related to poverty rate in Nigeria while loans and advances of microfinance banks (LLMB) has negative and insignificant effect with poverty rate in Nigeria. During the short run, 1% rise in LDR and LLMB will reduce poverty rate by 50.66%, and 377.69% respectively. More so, it is noteworthy that the CointEq(-1) that is, error correction model (ECM), which is the residual value, is negative and significant in the respective models. This indicates a movement towards attainment of long-run equilibrium in our model. Sequel to this, the residual (ECM) coefficient (-0.6607583), which is the speed of adjustment; it indicates a feedback of about 60.75% of the previous year's disequilibrium from the long-run elasticity of poverty rate. In other words, it implies that the speed with which the explanatory variables adjust from short-run disequilibrium to changes in poverty rate in order to attain long-run equilibrium is 60.75% percent within one year.

(ii) Short-run Discussion of Results based on Research Objective Two

From the empirical evidence showed that the lending rate (LR) relates positive and significant effect on economic growth in Nigeria. This implies that one percent increase in LR will improved economic growth by 43.99% in Nigeria. More so, assets of microfinance banks (LAMB) have positive but insignificant effect on economic growth in Nigeria. This indicated that a 1% increase in LAMB will improved economic growth in Nigeria by 106.7%. The implication is that strong capital base is necessary for microfinance banks to perform its expected roles in the economy. The assets base serves as a barometer to determine the short run operational tendency of microfinance banks.

The loans to deposit ratio of microfinance banks (LDR) has negative but significant effect on economic growth in Nigeria. This implies that, a one unit change in loans and advances of microfinance banks will precipitate a 13.58% decline of economic growth in Nigeria. by implication, the results suggest a net outflow of finance from the microfinance banks that may jeopardize the economic development of the nation. More so, loans and advances of microfinance banks (LLMB) have negative and insignificant effect on economic growth in Nigeria. More so, the lag (one) of loans and advances of microfinance banks has negative but significant effect on economic growth in Nigeria. However, a one unit change in loans and advances of microfinance banks will precipitate 36.85% and 2.30% declines of economic growth in Nigeria. More so, gross capital formation (GCF) has negative and insignificant effect on economic growth in Nigeria. This implies that one percent increase in GCF will decline economic growth by 0.18% in Nigeria. Finally, the error correction estimates for the short-run dynamics is rightly signed with negative coefficient value of -357463 and absolute t-statistics value -2.583789 coupled with 0.0208 probability value. These estimates confirmed the long-run equilibrium condition evidenced among the variables included in the model and it further suggests that 35.7% of the deviations or disequilibrium in GDP from the previous shocks will converge back to the long-run equilibrium in the current period. In addition, the speed of adjustment suggested a moderate convergence to the equilibrium state following the short-run shocks.

(iii) Short-run Discussion of Results based on Research Objective Three

The loans to deposit ratio of microfinance banks (LDR), value lagged one of loans and advances of microfinance banks ($LLMB_{-1}$) and gross fixed capital formation (GCF) has positive and significant effect on creation of employment opportunities in Nigeria. this implies that one percent increase in LDR, value lagged one of LLMB and GCF will improved creation of employment opportunities in Nigeria by 19.47%, 1087.8% and 123.01% respectively. The implication is that by granting credit, microfinance banks enable their clients expand their productivity. This expansion will exact the existing manpower. Additional hands will naturally be engaged to cope with the new level of production.

More so, the value lagged one of assets of microfinance banks ($LAMB_{-1}$) has negative significant effect on creation of employment opportunities. Also, assets of microfinance banks (LAMB) have negative insignificant effect on creation of employment opportunities in Nigeria. Also, value lagged one of loans to deposit ratio of microfinance banks (LDR_{-1}) has negative insignificant effect on creation of employment opportunities. Furthermore, government recurrent expenditure (LGE) and gross fixed capital formation (GCF) have negative significant effect on creation of employment opportunities in Nigeria. This implies that one percent increase in $LAMB_{-1}$, LAMB, LDR_{-1}, LGE and GCF will declines creation of employment opportunities in Nigeria. Remarkably, the estimate of short-run dynamics of model III shows the coefficient of ECM−1 is negative and statistically significant in the model with a probability value of 0.0000. This result confirms the convergence of short-run to the long-run equilibrium, respectively. The coefficient is approximately -1.005228, indicating that, 100.5% of the deviations or disequilibrium in employment creation from the previous shocks will converge back to the long-run equilibrium in the following period. In relation to the relative adjustment, the speed of adjustment shows a very strong convergence towards the equilibrium period within the system. According to Bannerjee, Dolado and Mestre (1998) "a highly significant lagged CointEq(-1) is further proof of the existence of stable long-run relationship". This implies that the adjustment to restore long-run equilibrium is reasonably high.

4.5 Diagnostics and Stability Test for ARDL Models

It is important to conduct some diagnostic test while building and estimating a model (Davidson & Mackinnon, 1999). The above estimated error correction model was further subjected to serial correlation, Autoregressive Conditional heteroskedasticity (ARCH), normality of the residual, functional form misspecification and heteroskedasticity test statistics and stability test. The test results are reported in table 4.5.

Table 4.5: Diagnostics Test Result for the Models

Model(s)	Test	F-statistic	Degree of Freedom	Probability
Model I	Serial Correlation (Breush-Godfrey Serial Correlation LM Test)	1.314189	F(2, 12)	0.3047
	Heteroskedasticity Test (Breush-Pagan-Godfrey)	0.463932	F(10, 14)	0.8871
	ARCH Test (Autoregressive Heteroskedasticity Test)	0.042495	F(1, 22)	0.8386
	Model Specification Test (Ramsey RESET Test)	0.065277	F(1, 13)	0.8023
	Normality Test (Jarque-Bera Statistics)	0.049012	Not applicable	0.975792
Model II	Serial Correlation (Breush-Godfrey Serial Correlation LM Test)	0.824703	F(2, 13)	0.4600
	Heteroskedasticity Test (Breush-Pagan-Godfrey)	1.482654	F(9, 15)	0.2403
	ARCH Test (Autoregressive Heteroskedasticity Test)	0.241611	F(1, 22)	0.6279
	Model Specification Test (Ramsey RESET Test)	0.448042	F(1, 14)	0.5142
	Normality Test (Jarque-Bera Statistics)	1.273662	Not applicable	0.528966
Model III	Serial Correlation (Breush-Godfrey Serial Correlation LM Test)	0.561422	F(2, 5)	0.6026
	Heteroskedasticity Test (Breush-Pagan-Godfrey)	0.980446	F(17, 7)	0.5477
	ARCH Test (Autoregressive Heteroskedasticity Test)	0.260611	F(1, 22)	0.6148
	Model Specification Test (Ramsey RESET Test)	0.009699	F(1, 6)	0.9248
	Normality Test (Jarque-Bera Statistics)	1.270736	Not applicable	0.529741

Source: Author's Compilation (E-View 9 Output).

The diagnostics analysis of the variables reported in table 4.5. Firstly, the Breusch-Godfrey correlation LM tests for the presence of autocorrelation. The result of the test reveals that the p-value of 0.3047, 0.4600 and 0.6026 respectively are greater than the critical value of 5%. This shows the non-existence of autocorrelation in the respective models. The Breusch-Pagan-Godfrey test for Heteroskedasticity reveals that the p-value of 0.8871, 0.2403 and 0.5477 respectively in the models are greater than the critical value of 5%. This indicates that there is no evidence of the presence of heteroskedasticity since the p-values of the f-statistic, observed R-squared and the scaled explained sum of squares are considerably in exceed 5% level of significant. The Autoregressive conditional heteroscedasticity (ARCH) may have an autoregressive structure, in that heteroscedasticity may be observed over different periods, hence it is needful to conduct the test for this study (Gujarati & Porter, 2009). The result revealed that the probability value of 0.8386, 0.6279 and 0.6148 respectively in the models are greater than 0.05 levels (5%), hence acceptance of the null hypothesis that there is no ARCH effect. This is desirable for the study, because it showed that there is no heteroscedasticity problem in the causality model. The Ramsey Reset Test shows that p-value of 0.8023, 0.5142 and

0.9248 respectively in the models are greater than the critical value of 5% level of significant. This indicates that there is no apparent non-linearity in the regression equation in the study and it would be concluded that the linear model is appropriate. Finally, the normality test result indicates that the probability value is 0.975792, 0.528966 and 0.529741 respectively in the models are greater than 0.05. Based on this however we accept H_1 and conclude that the residual is normally distributed and this result is desirable. The findings in this study support the results obtained in the studies of Okafor, *et al*., (2016).

However, to explore the stability of the long-run and short-run relationship between microfinancing, poverty alleviation and Nigeria's economic growth, the CUSUM and CUSUM-squared tests are applied at 5% level of significance. When the CUSUM line lies in-between the lines of the significant level, it shows the model is stable. However, variables are unstable when the CUSUM line is out of these two lines.

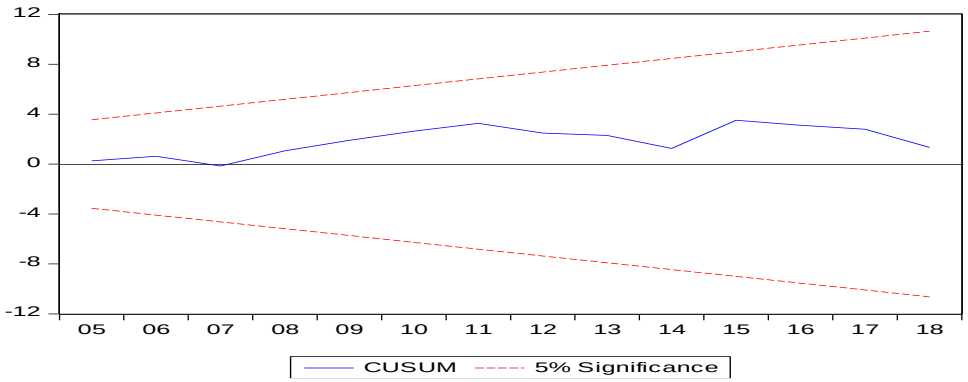

Figure 4.1: Cumulative Sum (CUSUM) Plot of Recursive Residuals for model one

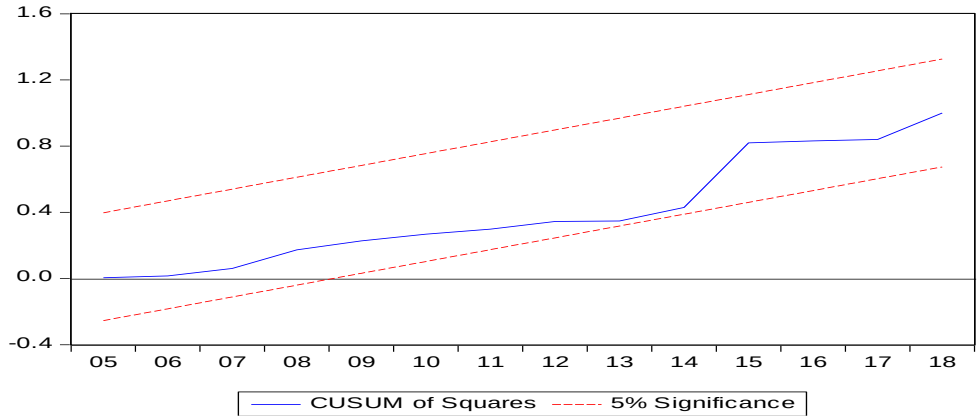

Figure 4.2: Cumulative Sum of Squares (CUSUMQ) Plot of Recursive Residuals for model one

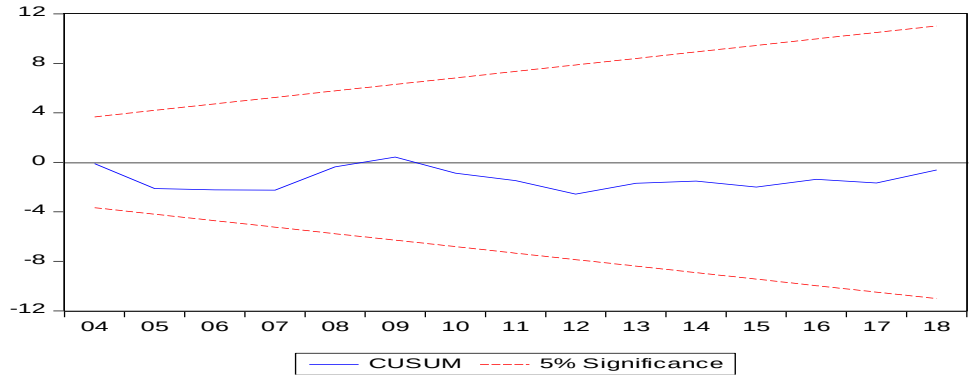

Figure 4.3: Cumulative Sum (CUSUM) Plot of Recursive Residuals for model two

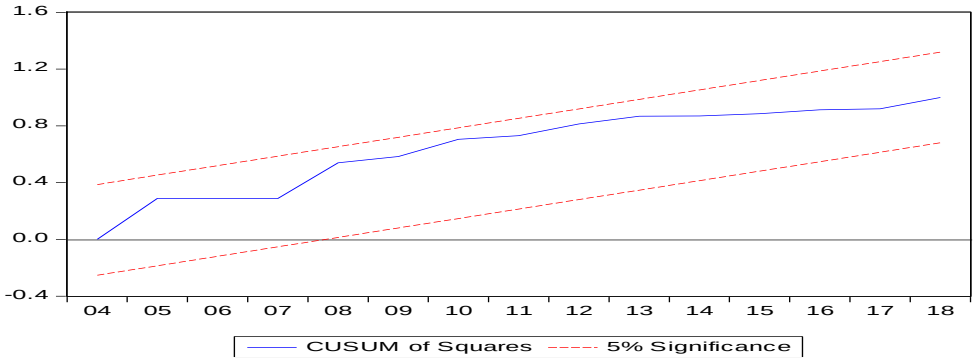

Figure 4.4: Cumulative Sum of Squares (CUSUMQ) Plot of Recursive Residuals for model two

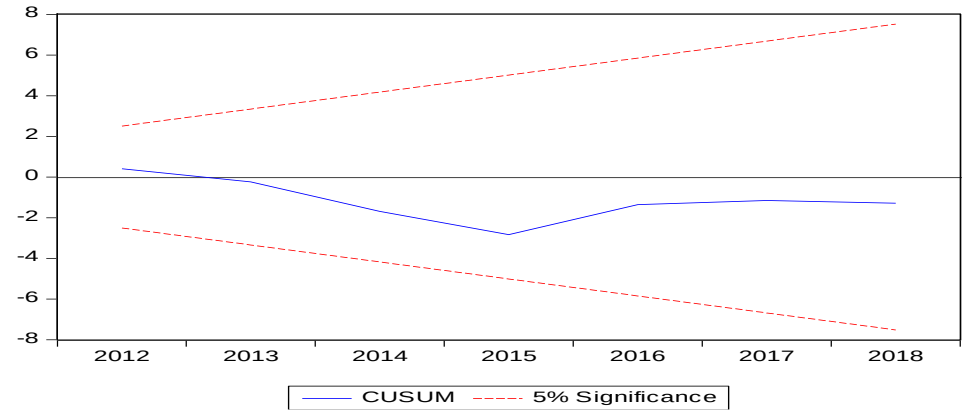

Figure 4.5: Cumulative Sum (CUSUM) Plot of Recursive Residuals for model three

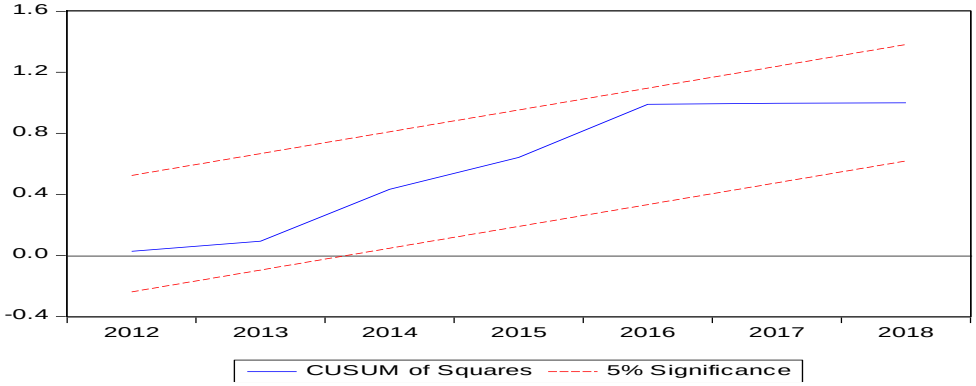

Figure 4.6: Cumulative Sum of Squares (CUSUMQ) Plot of Recursive Residuals for model three

The results of both CUSUM and CUSUMSQ test are reported in Figures 4.1 to 4.6. As it can be observed from the first figure, the CUSUM plot test did not cross the critical limits. Similarly, the CUSUMSQ test admitted that the graphs do not cross the lower and upper critical limits. So, we therefore conclude that long and short runs estimate are stable and there is no any structural break. Hence the estimated model results are reliable and efficient.

4.6 Economic Implications of the Major Findings

The study indicates that microfinance banks' operations do not contribute significantly to poverty rate in Nigeria. This aligned with Okafor (2015), Lawanson (2016). The preponderance location of microfinance banks in urban and semi – urban areas excludes the core poor who live in the rural areas from accessing the services of microfinance banks in the country. Also, the operation of micro – commercial banks' rather than microfinance banks in the country, which insist on collaterals for credit, alienates the poor from patronizing the existing microfinance banks. The competitive lending interest rate charged by the microfinance banks scared the poor from borrowing from the bank. The high capital requirement for the country, allows only the rich to buy into the product with the background of commercial banking. The operators of microfinance banks are anxious to post high operational profit to satisfy their directors and shareholders. To achieve this, they indulge into unethical banking practices which have led to the distress of some microfinance banks in Nigeria. The implications of all these are that the poor are marginalized in the services of microfinance banks' operations and so no effect on them. Yunus (2011) holds the view that microfinance banking in Nigeria is flawed.

Regarding the second objective where the findings opined that productive capacity of microfinance banks' loan advances do not have significant effect on the growth of GDP in Nigeria both in the long-run and short-run. The implication indicates that when loans elongated by the microfinance banks to that of business sector and it is not protracted, this will not procreate a corresponding elevate in the economic growth of Nigeria. Also, another implication is that the businesses were not generating enough profit to cover sufficiently the running cost and profit. Therefore, the borrowers will remain in the cycles of borrowing and repaying for years and years.

Finally, the study revealed that in the long-run, microfinance banks' loan advances has negative but significant contribution to employment opportunities while in the short-run, microfinance banks' loan advances has positive and insignificantly contribute to employment opportunities in Nigeria. The implication is that by granting credit, microfinance banks enable their clients expand their productivity. This expansion will exact the existing manpower. Additional hands will naturally be engaged to cope with the new level of production. Also, any attempt to empower people and give them access to financial services has the tendency to engender the productive employment by narrowing the employment creation and create conditions for inclusive growth and development.

5. Summary, Recommendations and Conclusion

5.1 Summary

This study investigated the nexus between microfinancing, poverty alleviation and Nigeria's economic growth in Nigeria. It adopts a time-series data spanning 27 years (1992 to 2018) on relevant variables for the study. Data obtained was analysed using the Augmented Dickey-Fuller (ADF) test, ARDL bounds cointegration test and the short-run diagnostics and stability for ARDL Model to ascertain the robustness of the econometric models with the following findings according to the objectives of the study were revealed.

However, the study acknowledged in the hypothesis one of the study that, microfinance banks' operations do not contribute significantly to poverty rate in Nigeria. This may be attributed to difficulties enshrined in operating environment which make the realization of their objectives cumbersome. The study according to the hypothesis two, established that microfinance banks' loan advances has not significant effect on the growth of GDP in Nigeria**.** The study also admitted in the hypothesis three that, microfinance banks' loan advances has negative but significantly contribute to employment opportunities in Nigeria. The significant effect showed an indication that productivity of clients is enhanced via credits from microfinance banks Finally, the different diagnostic tests conducted to test the estimated ARDL model evidences Breush-Godfrey Serial Correlation LM Test, Breusch-Pagan-Godfrey Heteroskedasticity Test, Heteroskedasticity Test: ARCH, Ramsey reset Test and Normality Test (Jarque-Bera Statistics) effects were not found in the disturbances. The model also passes the normality test, the cumulative sum of recursive residuals (CUSUM) and the cumulative sum of squares of recursive residuals (CUSUMSQ) stability tests.

5.2 Recommendations

In view of the result of the analysis, this study makes the following recommendation for consideration by policymakers.

The study revealed that microfinance banks' operations do not significantly contribute to poverty rate in Nigeria. However, for effective loan and advances, 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. However, Microfinance Banks (MFBs) should therefore, be front-liners of ethical and professional conduct by ensuring that fluffy loans are given to plausible and desirable entrepreneurs.

The study established that microfinance banks' loan advances do not have significant effect on the growth of GDP in Nigeria. For effective loan and advances, 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. However, Microfinance Banks (MFBs) should therefore, be front-liners of ethical and professional conduct by ensuring that fluffy loans are given to plausible and desirable entrepreneurs.

The study also admitted that microfinance banks' loan advances has negative but significantly contribute to employment opportunities in Nigeria. However, microfinance can foster employment generation through development of entrepreneurial activities in particular for the poor; as such government should use it to create employment. Also, Nigerian Government should be more anticipatory and endeavour to use microfinance as an effective policy tools to abrogate feminization of poverty in Nigeria and narrow the employment creation as to promote adequate inclusive growth in Nigeria. Furthermore, there is should be deliberate policy by the government encouraging the operation of microfinance banks in rural areas and occasionally in semi-urban areas. This will increase savings mobilization of the banks, thereby creating more employment opportunities.

5.3 Conclusion

Poverty has been identified as a debilitating cankerworm among human society. Its effects are felt more in the developing countries. The World Bank Report (2014) listed Nigeria third in the league of five countries with the largest number of the poor. Micro financing has been globally identified by development practitioners as an escape route from poverty. The Central Bank of Nigeria, in imbibing the microfinance catechism established the microfinance framework in 2005 by which the existing community banks transformed into microfinance banks and templates set for the regulation and supervision of the microfinance banks (CBN, 2005). From the result of this research work, it is concluded that microfinance banks activities have not realized it objective of poverty reduction. More so, the study established that microfinance banks' loan advances have not significant effect on the growth of GDP in Nigeria and improvement in citizen's standard of living by creation of employment opportunities in Nigeria.

References

Abdulkadir, M. S.; Jayum, A. A.; Zaid, A. B. & Asnarulkhadi, A. S. (2010). Africa's Slow growth and development: An overview of selected Countries. *European Journal of Social Sciences*, 16(4), 619-635.

Abimiku, A. C. (2000). Financial institutions and Nigeria's economic development Jos DIMA investment computer service. *Journals of Economic and financial Issues*, 2(1), 12-21.

Adama, U., Joseph, U., Duru, I. & Diyoke, O. K. (2017). The role of microfinance banks on employment generation in the grassroots: Evidence from Karu Local Government Area of Nasarawa State, Nigeria. *Asian Journal of Economics, Business and Accounting, 4(2), 1-9.*

Ademola E. A. & Arogundade, K. (2014). The impact of microfinance on economic growth in Nigeria. *Journal of Emerging Trends in Economics and Management Sciences*, 5(5), 397 - 405.

Aluko, M. (2002). The institutionalization of corruption and its impact on political culture and behaviour in Nigeria. *Nordic Journal of African Studies, 11*(3), 393-402.

Anyanwu, J. C. (2014). Factors affecting economic growth in Africa: Are there any lessons from China? *African Development Review*, 26(3), 468-493.

Apere, T. O. (2016). The impact of microfinance banks on economic growth in Nigeria. *International Journal of Academic Research in Economics and Management Sciences,* 5(4), 53 - 61.

Ariful, C. H., Atanu, D. & Ashiqur, R. (2017). The effectiveness of micro-credit programmes focusing on household income, expenditure and savings: Evidence from Bangladesh. *Journal of Competitiveness*, 9(2), 34 - 44.

Ayodele, A. E. & Kayode, A. (2014). The impact of microfinance on economic growth in Nigeria. *Journal of Emerging Trends in Economics and Management Sciences,* 5(5), 397-405.

Backwith, D. (2015). *Social work, poverty and social exclusion*. Maidenhead, Berkshire: McGraw-Hill Education.

Banerjee, A., Dolado, J., Galbraith, J.W. & Hendry, D. (1998). Cointegration, Error Correction and the econometric analysis of non-stationary data. Oxford: Oxford University Press.

Bradshaw, T. K. (2005). Theories of poverty and anti-poverty programs in community development. *RPRC Working Paper No. 06-05* (February).

Brown, R. L., Durbin, J. & Evans, J. M. (1975). Techniques for testing the constancy of regression relationships over time. *Journal of the Royal Statistical Society, Series B (Methodological)*, 149-192.

Callan, T. & Nolan, B. (1991). Concepts of poverty and the poverty line. *Journal of Economic Surveys, 5*(3),243-261.

Central Bank of Nigeria (2005). Annual Report and Statement of Account, CBN, Abuja.

Cochrane, J. H. & Monika, P. (2005). Bond risk premia. *American Economic Review,* 95,138–160.

Commins, P. (2004). Poverty and social exclusion in rural areas: characteristics, processes and research issues. *Sociologia Ruralis, 44*(1), 60-75.

Cvetanovic, S.; Mitrovic, U. & Jurakic, M. (2019). Institutions as the driver of Economic Growth in Classic, Neoclassic and Endogenous Theory. *Economic Themes*, 57(1),111-125.

Davis, S. J. & Haltiwanger, J. (1990). Gross job creation and destruction: microeconomic evidence and macroeconomic implications. *National Bureau of Economic Research (NBER) Macroeconomics Annual*, 5 (2), 123-186.

Deaton, A. (2002). Is world poverty falling? Finance and development, June, 39(2), 4-7.

Dike, V. E. (2009). Addressing youth unemployment and poverty in Nigeria: A call for action, not Rhetoric. *Journal of Sustainable Development in Africa, 11*(3), 129-151.

Dike, V. E. (2005). Corruption in Nigeria: A new paradigm for effective control. *Africa Economic Analysis, 24*(08), 1-22.

Ejefobihi, U. F., Imoagwu, C. P. & Ezeanyeji, C. I. (2019). Microfinance – one of the key drivers of financial inclusion in Nigeria. *Journal of Policy and Development Studies*, 12(1),24-42.

Ezeanyeji, C. I., Imoagwu, C. P. & Ejefobihi, U. F. (2019). Entrepreneurship development and poverty reduction in Nigeria: The synergy. *International Journal of Economics, Commerce and Management*, VII(4), 584-599.

Ezeanyeji, C. I. & Ozughalu, U. M. (2014). Conceptual and theoretical issues in poverty, and a reflection on the poverty and competitive situation in Nigeria. *International Journal of Economics, Commerce and Management*, II(11),1-16.

Emmanuel, K. T, Godfred, F., Nelson, O. & Omari, R. (2015). Does microcredit create employment for the Poor? The case of the microcredit scheme of Upper Manya Krobo Rural Bank in Ghana. *Business and Economics Journal*, 7(1), 1 - 9.

Enakhimion, L. I. (2011). Corruption in Nigeria.

Ewhrudjakpor, C. (2008). Poverty and its alleviation: The Nigerian experience. *International Social Work, 51*(4), 519-531.

Ghulam, H. A. K. M., Nargis, N., Ashiquzzaman, S. M. & Khalil, F. (2017). The employment impact of microcredit program participation in Bangladesh: evidence from a longitudinal household survey. GLO Discussion Paper, No. 59, Global Labor Organization (GLO), Maastricht.

Gwartney, J. & McCaleb, T. S. (1985). Have antipoverty programs increased poverty. *Cato Journal*, 5(5), 1-16.

Hamza, A. M. & Rogia, S. M. A. (2017). The role of microfinance in reducing poverty rate in Sudan (A Case Study of Saving & Social Development Bank). *International Journal of Science, Environment and Technology*, 6(2), 1460 – 1475.

Holmes, R.; McCord, A.; Hagen-Zanker, J.; Bergh, G. & Zanker, F. (2013). *What is the evidence on the impact of employment creation on stability and poverty reduction in fragile states: A systematic review*. London, UK: Overseas Development Institute.

Hope Sr, K. R. (2017). Corruption in Nigeria. *Corruption and Governance in Africa,* pp. 125-162.

Janghee, C.; Hyunbae, C.; Hongjun, K. & Yoonsoo, L. (2017). Job creation and destruction: new evidence on the role of small versus young firms in Korea. *The Japanese Economic Review*, 68(2), 173-187.

Jencks, C. (1992). *Rethinking social policy: race, poverty, and the underclass*: Harvard University Press Cambridge, MA.

Jhingan, M. L. (2002). *Advanced Economic Theory*. Delhi: Vrinda Publications (P) Ltd.

Karlan, D. & Goldberg, N. (2007). The impact of microfinance: A review of methodological issues. The World Bank. November.

Kasali, T. A., Siti Aznor Ahmad, S. A. & Lim, H. E. (2015). The role of microfinance in poverty alleviation: empirical evidence from South-West Nigeria. *Asian Social Science*, 11(21), 183 - 192.

Keynes, J. M. (1936). *The General Theory of Employment, Interest and Money*, London.

Khan, M. A. & Rahaman, M.A. (2007). Impact of microfinance on living standards, empowerment and poverty alleviation of Poor, A case Study on microfinance in

the Chittagong district of Bangladesh. Umea School of Business, Department of Business Administration, Sweden.

Koutsoyannis, A. (1977). *Theory of Econometrics*, 2nd Edition. New York: Palgrave Publisher.

Laderchi, C. R., Saith, R. & Stewart, F. (2003). Everyone agrees we need poverty reduction, but not what this Means: Does this Matter? Paper presented at the WIDER conference on inequality, poverty and human well-being, Helsinki.

Laurenceson, J. & Chai, J. C. H. (2003). *Financial reform and economic development in China*. Cheltenham, UK, Edward Elgar.

Lawanson, O. (2016). Alleviation poverty through microfinance. Nigeria's experience, *Asian Journal of Economic Modeling*, 4(3), 153-161.

Lewis, A. (1954). Economic development with unlimited supplies of labour, Manchester School, 22(2).

Liu, Y. (2018). Job creation and destruction in Japan: Evidence from division-level employment data. *Journal of Asian Economics*, 58(5), 59–71.

Lok-Dessallien, R. (1999). Review of poverty concepts and indicators. *UNDP Soc Dev Poverty Elimin DivPoverty Reduct Ser.* Retrieved from http://www.undp.orgpovertypublicationspovReview.pdf

Ma, H.; Qiao, X. & Xu, Y. (2015). Job creation and job destruction in China during 1998–2007. *Journal of Comparative Economics*, 43 (5), 1085–1100.

Mahembe, E. & Odhiambo, N. M. (2018). The dynamics of extreme poverty in developing Countries. *Studia Universitatis "Vasile Goldis" Arad. Economics Series*, 2(2), 18 - 35.

Murad, A. & Idewele, I. E. O. (2017). The impact of microfinance institution in economic growth of a Country: Nigeria in Focus. *International Journal of Development and Management Review (INJODEMAR),* 12(1),1-17.

Narayan, P. K. (2005). The Savings and Investment Nexus for China: Evidence from Co-Integration. Tests. *Applied Economics,* 37, 1979-1990.

Nyarondia, S. M. (2017). Effect of microfinance on poverty reduction: A critical scrutiny of theoretical literature. *Global Journal of Commerce and Management Perspective*, 6(3),16 - 33.

Ogbeidi, M. M. (2012). Political leadership and corruption in Nigeria since 1960: A socio-economic analysis. *Journal of Nigeria Studies, 1*(2),1-8.

Ogundiya, I. S. (2009). Political corruption in Nigeria: Theoretical perspectives and some explanations. *Anthropologist, 11*(4),281-292.

Okafor, I. G. (2016). The Impact of microfinance banks activities on employment generation in Nigeria. *Imperial Journal of Interdisciplinary Research (IJIR)*, 2(6), 685-692.

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

Okoosi-Simbine, A. T. (2011). Corruption in Nigeria *State, economy, and Society in Post-Military Nigeria,* pp.157-180.

Olateju, A. O. (2018). The impact of access to women empowerment: A case study microfinance bank microcredit programme of in Lagos State, Nigeria. *European Journal of Economics, Law and Politics*, 5(2), 21 - 34.

Oluyomno, K. (2007). Measuring the impact of microfinance: Taking Gramean Foundation. *Report of the World Summit for Social Development*.

Oshewolo, S. (2010). Galloping poverty in Nigeria: An appraisal of government interventionist policies. *Journal of Sustainable Development in Africa, 12*(6), 264-274.

Osoba, S. O. (1996). Corruption in Nigeria: Historical perspectives. *Review of African Political Economy, 23*(69), 371-386.

Osonwa, O., Adejobi, A., Iyam, M., & Osonwa, R. (2013). Economic status of parents, a determinant on academic performance of Senior Secondary Schools Students in Ibadan, Nigeria. *Journal of Educational and Social Research, 3*(1), 115-122.

Osuala, E. C. (2010). Introduction to Research Methodology, Onitsha: Africana-First Publishers Ltd.

Ouattara, B. (2004). Modelling the long run determinants of private investment in Senegal. *Credit Research Paper, 04/05*, Retrieved from https://www.econstor.eu/bitstream/10419/81768/1/04-05.pdf.

Owualah, S. I. (1999). *Entrepreneurship in small business firms.* Lagos: G-Mag Investments Ltd., (Chapter 3).

Palley, T. I. (1997). Aggregate demand and endogenous growth: A generalized Keynes-Kaldor model of economic growth. *Metroeconomica*, 48(2), 161–176.

Parr, J. B. (1998). On the regional dimensions of Rostow's theory of growth. In: 38th Congress of the European Regional Science Association: "Europe Quo Vadis? - Regional questions at the Turn of the Century", 28 August - 1 September 1998. Vienna, Austria: European Regional Science Association (ERSA), Louvain-la-Neuve.

Pesaran, M. H., Shin, Y. & Smith, R. J. (2001). Bounds Testing Approaches to the Analysis of Level Relationships. *Journal of Applied Econometrics*, 16(3), 289–326.

Pesaran, M. H. & Shin, Y. (1999). An Autoregressive Distributed Lag Modelling Approach to Cointegration Analysis. In *Econometrics and Economic Theory in the 20th Century,* edited by S. Storm, 371–413. Cambridge: Cambridge University Press.

Pietak, L. (2014). Review of theories and models of economic growth. *Comparative economic Research*, 17(1), 45-60.

Pindyck, R. S. & Rubinfeld, D. L. (1997). *Econometric models and economic forecasts, 4th edition*. Singapore: Irwin/McGraw-Hill.

Porter, J. R. & Washington, R. E. (1979). Black identity and self-esteem: A Review of studies of black self-concept, 1968-1978. *Annual Review of Sociology, 5*(1), 53-74.

Rimmer, D. (1961). Schumpeter and the Underdeveloped Countries. *Quarterly Journal of Economics*, 75(3), 422-450.

Roli, O. (2012). Microfinance institutions and microcredit services delivery methods in Nigeria: A case Study of Lapo Microfinance Bank. An Msc Project submitted to the

Department of Banking and Finance, Faculty of Management Sciences, University of Benin, Benin City.

Rostow, W. (1960). *The stages of economic growth: A Non – communist Manifesto, Chapter 2*. Cambridge University Press.

Ryan, W. (1976). *Blaming the Victim*. New York: Vintage.

Salisu, M. (2000). Corruption in Nigeria.

Schumpeter, J. A. (1934). *The theory of economic development*. Cambridge, MA: Harvard University Press.

Shah, M. K. (2016). *The myth of community: gender issues in participatory development*. ITGD Publishing.

Shahbaz, M., & Rahman, M.M. (2012). The dynamic of financial development, imports, foreign direct investment and economic growth: Cointegration and Causality Analysis in Pakistan. *Global Business Review*, 13(2), 201–219.

Taiwo, J. N. (2012). The impact of microfinance on welfare and poverty alleviation in South-West Nigeria. Ph.D. Thesis, Covenant University.

Thanawala, K. (1994). Schumpeter's theory of economic development and development Economics. *Review of Social Economy*, pp. 353-363.

Tignor, R. L. (1993). Political corruption in Nigeria before Independence. *The Journal of Modern African Studies, 31*(2), 175-202.

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

UNCTAD (2018). Annual Report.

Usifoh, K. S. & Ezeanyeji, C. I. (2017). Impact of microfinance banks on poverty alleviation and economic growth in Nigeria. *NG - Journal of Social Development*, 6(5):22-34.

World Bank (2018). Piecing together the poverty puzzle. poverty and shared prosperity report. Washington DC: The World Bank.

World Development Report (2014), Working Version. (2015), *World Development Report 2016: Internet for Development*.

Yunus, M. (2011). In Columbia Electronic Encyclopedia 6th Edition. Columbia University Press.

Yousuf, S. & Mansur, M. (2016). Does microfinance affect economic growth? Evidence from Bangladesh based on ARDL Approach. *MPRA Paper* No. 72123:1-31.

Yunus, M. (1974). Three Farmers of Jobra. Department of Economics, Chittagong University.