Financial Inclusion and Poverty Alleviation in Nigeria

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Received: 31/12/2018
Accepted: 10/02/2019

Abstract

The study examined the impact of financial inclusion on poverty alleviation in Nigeria using time series data for the period 2002 to 2015. The data was sourced from the World Bank indicators, 2016. The study employed the ordinary least squares multivariate regression technique. Financial inclusion is found to exert significant impact on per capita income, reduces poverty level and improves standard of living. Specifically, the result shows that commercial bank branches per 100,000 adults exert positive impact on per capita income, increase standard of living and contributes to poverty alleviation. Depositors with commercial banks per 1000 adults exerted a negative effect on poverty alleviation and are not statistically significant under the reference period. Borrowers from commercial banks per 1000 adults are found to increase per capita income and by extension poverty alleviation and are not statistically significant. The finding also reveals that number of automated teller machines enhanced financial inclusion, income generation and poverty alleviation and was not statistically significant. The study recommends that the Central Bank of Nigeria needs to come up with effective monetary policies that can influence financial inclusion and alleviation of poverty. This will encourage accessibility to financial services at affordable cost for poverty alleviation purposes.

Keywords: Financial Inclusion; Poverty alleviation; Per Capita Income; Poverty Index; Automated Teller Machine.

JEL Classification Codes: E62

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1. INTRODUCTION
The increasing level of poverty and hardship affecting the common man like artisans and the unemployed in Nigeria has been a major concern to the general public. The World Poverty Clock (2018) reports that Nigeria has overtaken India in February 2018 as the country with the largest number of poor people. The statistics further reveals that 82 million Nigerians or 42.4 percent of Nigeria’s population live in extreme poverty. According to World Bank (2003), living in extreme poverty implies living under N684 per day. In the light of present economic challenges in Nigeria, there is no doubt this contributes to the inability of persons to meet their minimal survival needs. The aim of the Sustainable Development Goals of the United Nations as outlined in 2015 is to eradicate poverty for all people everywhere by the year 2030 in developing countries, including Nigeria. Despite this, poverty rate is increasingly high in Nigeria given the World Poverty Clock (2018) report.

Intuitively, poverty prevalent in Nigeria may not be unconnected with unstable economic policies of governments. For instance, unemployment is on the ascendancy in addition to difficulty being faced by poor and low income earners like artisans in accessing financial services from the financial sector for entrepreneurship purposes (Igbinosa & Ogbeide, 2016). Persons who are entrepreneurially inclined do not easily access funds from the conventional banks in Nigeria to effectuate their vision, ambitions, goals and aspirations. This may not be unconnected to some bottlenecks like high interest rate, stringent collateral requirements by the commercial banks and sometimes by some microfinance banks, lack of information about access to cheap funds, unstable network in using banks’ facilities like the automated teller machines, among others (Onaolapo, 2015). There are constant yearnings by both the middle and low income earners to be financially inclusive. This is to enable them enhance investment in productive ventures, influence income generation and promoting good standard of living, consequently alleviate poverty considerably.

Financial inclusion as a concept in this research may be seen as having access to finance, especially cheap funds for investment purposes and access to information and knowledge about finance for investment aim (Igbinosa & Ogbeide, 2016). In the view of Flannery (2018), financial access should be for everyone and access to credit allows people to invest in their future, whether buying books for school or paying tuition fees, purchasing inventory for their shops, or undertaking one investment or the other. This should be with the expectation of income generation, alleviating poverty, thereby promoting good standard of living, enhancing individual capacity development and creating value addition in the larger society. Financial inclusion has the propensity to reduce poverty rate and unemployment. In Nigeria to be specific, poverty appears to be a chronic social-economic disease adversely affecting mankind. Majority of the domestic and public violence often witnessed have poverty as one of the roots causes (Onaolapo, 2015). However, one of the panaceas may not be far from financial inclusion (Onaolapo, 2015). So, financial inclusion in the context of this paper may be regarded as one of the efficacies for poverty alleviation in Nigeria. It could be a necessary factor to advancing entrepreneurship development given there is proper orientation; sensitization and education of both urban and rural dwellers. Sanusi (2011) opines that the rise in poverty level in Nigeria is due to the challenges of non – financial inclusion and achieving optimal level of financial inclusion in Nigeria means empowering seventy percent (70) of the population living below poverty level as this would boost growth and development. In an emerging country like Nigeria, the importance of financial
inclusion cannot be over emphasized. It assists the poor and low income earners to access financial services. Financial inclusion promotes savings, deposits, enhances capital accumulation, and engenders accessibility to financial services, investments accelerating growth of the economy. Accessibility to financial services implies people have more branches of both deposit money and microfinance banks located near them. This enables them optimize the various products / services at a cheap cost. Financial inclusion most often targets the very low income earners who generate income from one source of business to the other. In an emerging country like Nigeria, there is no doubt greater chunk of idle funds are held in the hands of several millions of the low income earners who engage in one little business or the other. Access to financial services allows these low income earners to save outside their dwelling house (Mehrotra, 2009).

The World Bank particularly considers individuals as financially included provided they have access to a bank account or digital wallet (mobile money). The 2014 Global Findex Report indicates that there are over 1.7 billion adults currently unbanked globally and 4 percent are Nigerian. The Business Day Newspaper of 25th April, 2018 reports that financial inclusion in Nigeria stands at 39.7 percent, a drop from 44.4 percent in 2014, an apparent indication that the number of adults with access to accounts has declined. The report also shows that access to bank account dropped from 44.2 percent in 2014 to 39.4 percent in 2017. This appalling occurrence has two side effects. First it promotes de-savings with the financial institutions, be it commercial bank or micro finance bank. Secondly it predisposes the low income earners to save with informal financial institutions like social clubs and other third party, thus engendering risks and financial exclusion. In the same vein, the Central Bank of Nigeria’s pursuit of job creation, financial inclusion and growthseems to be concentrated on small and medium scale enterprises (SMEs) rather than individuals and households both in urban and rural areas who are often at the bottom line of poverty scourges (Okafor, 2012).

Furthermore, due to the attendant value attached to financial inclusion, most deposit money banks in Nigeria have continued to display an uncommon drive for customers who are low income earners through the marketing unit to open savings account. Some of the commercial banks like Diamond bank have long been operating what could best be regarded as kiosk banking where people of low income can easily make a deposit and also optimize the benefits of services there from. Microfinance banks are even more aggressive in this drive in attempt to promoting financial inclusion. Both the microfinance banks and some deposit money banks do encourage low – income earners otherwise referred to as the “poor” to open a daily collection card, persuade them to have savings habit, thus enabling them have access to investible funds and other financial services. Interestingly, financial inclusion makes it possible and easy for large number of persons to be free from the difficulties in opening bank account(s); gaining access to fast credit, conveniently and consistently use financial system products / facilities. The goal of financial inclusion is to ensure every member of the larger society have access to finance at the cheapest possible cost to finance business opportunities that ultimately bring about a constant flow of at least variable income which then assist to reduce poverty, enhance standard of living, thereby reducing social vices in the larger society.

In the light of prevailing global challenges, like fluctuation in exchange rate, inflation rate and unemployment rate, there is no doubt financial inclusivity is critical to poverty alleviation, removal of barriers to
active economic commitment of rural and urban dwellers, which encompass both men, women, youths and who may also be regarded to be at the bottom of poverty. Among the members of the Nigerian society, the rural dwellers seem to suffer most from financial inclusion. For example, banks are not located in some rural areas, perhaps due to bad roads, security challenges, electricity and other problems. The little the so-called low income earners earn is not banked and they have difficulty saving it. Never the less these myriad pockets of challenges, some micro finance banks like the Lift Above Poverty Organization (LAPO) and others through effective strategies have continued to expand in length and breadth by opening different branches in nooks and crannies in urban areas as well as penetrating deeply into rural areas in Nigeria. The aims are to reach out to the very low income earners, encourage them to save, access credit (loan) facilities at least on a micro basis for profitable investment, consequently enhancing income generation, thus lifting them above poverty level.

Poverty level is often indicated with poverty index. Literally, the lower the index, the better is the standard of living of citizenry. Existence of standard of living of citizenry in a nation is a function of the level of per capita income at the disposal of the people. Therefore, improvement in the per capita income of people enhances their standard of living and poverty alleviation (Fadun 2014). To the best of the knowledge of the researcher, there are little empirical studies which have examined how commercial bank branches per 100,000 adults, depositors with commercial banks per 1000 adults, borrowers of commercial bank per 1000 adults and use of automated teller machines per 100,000 adults arising from the use of bank account by individuals and households as financial inclusion indicators contribute to poverty alleviation in Nigeria (Ogbeide, 2019). Thus, this research seeks to ascertain how financial inclusion contributes to per capita income as well as poverty alleviation in the Nigeria context. The rest of this paper is structured into four sections. Section two concerns review of related literature, section three is the methodology section four is empirical analysis while section five is conclusion and recommendations.

2. LITERATURE REVIEW

This section concerns examination of the concepts and empirical literature on the subject matter under investigation.

Conceptual Clarification

Under this sub –area, the concepts of the study are robustly harped on. The aim is to clearly enhance the understanding of readers of the terminologies which make up the variables of interest upon which data where sourced and analyzed.

Financial Inclusion

The common concept of financial inclusion is the provision of contact to and usage of different and affordable financial services. The use of and access to financial services is one of the major drivers of economic growth. Financial inclusion covers continuous, important, cost effective and relevant financial services for the poor population (Odi & Ogonna, 2014). The centre for financial inclusion (2013) states financial inclusion as the state where people who can make use of the financial services have access to quality financial services, given at affordable prices, in an appropriate manner and dignity for the client. According to the Reserve Bank of India financial inclusion is the process of guarantying access to relevant resources and financial services needed by the low income group at an affordable price in a transparent manner by the mainstream institutional players.

Financial inclusion is a state in which all persons have access to banking and insurance services as well as financial literacy. It is also a state in which all persons have access to desired financial products and services in order to manage their money effectively. It is achieved by
financial literacy and financial capability (Lindsay & Gillespie, 2009). We may see financial inclusion as a state in which everyone has access to a range of quality financial services at affordable prices with convenience, dignity, and consumer protections, delivered by a range of providers in a stable, competitive market to financially capable clients.

Khan (2011) states that financial inclusion upgrades the financial standard of living for the under privileged and poor people, because it allows them increase their commitment in their economic activities. Financial inclusion advances the issue of credit to small-scale enterprises which helps as an engine of maintaining the growth of small-scale enterprises and development because credit provide an important source of income and employment for the poor and especially those in the rural area (Okafor, 2012). Financial inclusion improves efficient distribution of resources through financial intermediation. Financial intermediation is when money is moved from those who have in excess to those who do not have enough. Dia (2006) stated that the outcomes of such transfers result in equitable allocation of incomes. Clark (2013) opines that financial inclusion assist individuals to increase income stream in the house, supply cash flow or liquidity, absorbs shock of mishap by building assets which allows client to manage with loss through consumption smoothing, hence adverts the sales of productive assets. It raises income when the credit is used for an income generating activity and that same activity creates returns in excess of the loan installment repayments, while it creates asset though the credit finance investment does not generate a significant net profit, but its creates an asset since the clients still has the investment.

Poverty
Poverty is a social problem experienced by people having limited economic resources and a low standard of living (Umar, 2013). Aduda and Kalunda (2012) established that poverty is a humiliation to humanity, efforts around have been put together to remove it. In developing country like Nigeria, the reality of poverty cannot be denied. The intensity of poverty on peoples’ life these days and most especially in Nigeria is very alarming and worrisome! Poverty is robbing people of their safety, stripping people not only of safe water, adequate food, clothing and shelter, education and health, but constantly predisposing youths to blood ritual practices and other get rich evil syndromes. Poverty is not just about physical disadvantage; it is also about lack of opportunity and loss of hope. Poverty is one of the worst causes of violence either at family level or in the general society. According to Ogwumike (2001), poverty is a situation where people have low or inadequate income to meet the basic needs of life. Olowonibi (1982) sees poverty as living in a low grade environment and inadequate social amenities. According to Atolaye and Bamidele (1997), poverty is the lack of basic necessities.

Poverty in this study may be seen as a situation where persons lack the basic needs of life like foods, clothing and shelter. It is a state where whereby people are destitute of basic resources such as financial and material resources to meet the essential needs of life. Poverty could be absolute or relative. Absolute poverty may be seen as a condition whereby people are unable to obtain adequate resources to get a minimum amount of physical health. Relative poverty is a situation where persons cannot afford and enjoy a level of living standard. Both absolute and relative poverty are a function of per capita income level at the disposal of individuals in an economy. In Nigeria, Aluko (2011) notes that the level of poverty is immensely high, with about two thirds of the population below the poverty line especially in rural areas.
Alleviating the scourge of poverty is a function of enabling government policies and concerted efforts by individuals in a country. This presupposes that variables that can influence poverty alleviation are a concern on theoretical and empirical fronts. By simple clarification, poverty alleviation is a set of measures, which include both economic and humanitarian which goals are meant to permanently lift people out of poverty (Onaolapo, 2015). It is also involves improving the living conditions of people who are already poor. Poverty alleviation may be achieved by increasing income generation. Income generation should imply people have access to at least micro loans or loan facility from conventional banks for investment and productivity purpose. This obviously creates self-empowerment and wealth creation which eventually leads to poverty reduction.

**Empirical Literature**

Fadun (2014) examines financial inclusion, tool for poverty alleviation and income redistribution in Nigeria. Structured questionnaires were administered to some selected respondents in the study area. This consequently favoured the use of descriptive statistics to analyze the data generated. The study finding indicates that financial inclusion serves as a veritable tool for alleviating poverty as well as income redifusing in Nigeria. similarly, the report by Enhancing financial innovation and Access (2010) shows that 53.7% of persons in Nigeria urban centres are financially served, 46.3% are financially excluded, 36.63% are formally served (included), 17.49% are informally served (included) 30.0% are banked while 6.3% are other financial institutions. Similarly, the record also shows that on the basis of zones in Nigeria, North West had 13% formally banked, 13% are informally served, 68% are financially excluded. In North Central (FCT), 27% were formally banked, 23% were informally served, 44% financially excluded. In south west (Lagos), 42% were formally banked, 18% were informally served, while 33% were financially excluded. 15% were formally banked, 11% were informally served while 68% were financially excluded in the North East, 41% were formally banked, 21% were informally served and 32% were financially excluded in the South East. In the South –South, 39% were formally banked, 19% were informally served while 36% were financially excluded, 80.4% freely excluded from formal and informal financial services live in rural areas while the remaining 19.6% live in urban areas of Nigeria (EFINA, 2010).

Reasons put forward for this problem include physical distance to bank branches in most rural areas is long and this pose high cost for accessing financial services, secondly there is lower economic activity in rural areas which affects the profitability of financial institutions. Thirdly a lower degree of education and financial literacy in rural areas reduces the tendency for clients to make use of financial products. Fadun (2014) notes that about 54.4% of women in the rural area are financially excluded while 73.8% which are below 45 years mainly youth are financially excluded. In the same vein, about 34.0% of the uneducated are financially excluded in the rural areas while 80.4% of the rural residents are financially excluded. The implication of these startling findings is unprecedented increase in poverty rate in Nigeria. This can only be remedied if there is adequate orientation, sensitization, and education, encouragement of microfinance banks and good network of roads in the rural areas and in some urban centres of Nigeria.

Burgess and Pande (2005) studied the effect of rural banks on poverty reduction in India for the period 1972 to 2003. Ordinary least squares multivariate regression technique was used in the data analysis. The finding reveals that rural bank branches in India influences poverty reduction. The researchers were of the view that citing bank branches in rural areas was a necessity
for poverty alleviation. Brune, Gine, Golberg and Yan (2011) report that increased commitment in opening savings account in rural areas of Malawi alleviate the economic hardship. Park and Mercado (2015) empirically examine financial inclusion, poverty and income inequality in developing Asia. The ordinary least squares and error correction mechanism were used to analyze the data. The finding revealed that per capital income is significantly related with financial inclusion. The researchers emphasized that financial inclusion significantly reduces poverty and lowers income inequality. Onaolapo (2015) empirically assessed how financial inclusion is related to the economic growth of Nigeria in the reference period 1982 and 2012 with the use of multivariate regression method. The finding showed that the number of bank branches, loan to the rural area and agricultural credit guarantee scheme fund increase per capital income, suggesting that financial inclusion significantly reduces poverty in Nigeria.

Ene and Inemesit (2015) examined the impact of microfinance in promoting financial inclusion in Nigeria for the period 1990 – 2014 using ordinary least squares method. The research result also indicated that access to microfinance minimum deposit amount has significant effect on savings account opened by rural dwellers while microfinance interest rate revealed a negative and non-significant relationship with financial inclusiveness of the rural dwellers particularly by way of loans and advances. Nwankwo and Abah (2013) examined the impact of microfinance on rural transformation in Nigeria using descriptive analysis. The findings showed that micro-finance is positive on the rural poor through enabling them access finances for farm purpose, other business opportunities for income generation purpose, thereby mitigating the adverse effects of poverty. Olumuyiwa and Oluwatosin (2012) empirically examined the effect microfinance banks have on income generation and standard of living of hairdressers in some part of Nigeria, specifically in Oshodi-Isolo local government Area of Lagos State. The intriguing finding was that microfinance bank contributes significantly to poverty mitigation among the target respondents in the local government area of Lagos State. Okpara (2010) investigated the impact of microfinance on poverty alleviation in Nigeria using regression analysis. The finding identified five factors like low profit; high prices of commodities, hard economic times, and lack of finance to start or expand business were critical factors contributing to poverty. Oluyombo (2011) points out that microfinance banks have positive effect on poverty alleviation. This is made possible through accessibility to finance for investment purpose. These above prior literature failed to investigate how financial inclusion indicators like commercial bank branches per 100,000 adults, depositors with commercial banks per 1000 adults, borrowers of commercial bank per 1000 adults automated teller machines per 100,000 adults could contribute to per capita income and consequently the alleviation of poverty among the rural and urban dwellers in Nigeria. These gaps necessitate the reason why this study is undertaken with a view to contributing to knowledge.

3. METHODOLOGY
This section concentrates on the steps taken to effectuate the study objectives. It ranges from data sources, method of data analysis and specification of the regression model.

Sources of Data
The aim of this research is to examine the nexus between financial inclusion and poverty alleviation in the Nigerian context. Time series data for the research was extracted from the Apex Bank of Nigeria Statistical Bulletin various issues, National Bureau of Statistics and World Bank indicators in the period, 2002 to 2015 and used for the econometric analysis.
Method of Data Analysis
The research used the ordinary least squares multiple regression method for data analysis. Stationary test was also effectuated to test for the stochastic properties of the time series. The stationarity properties of the time series data are investigated in this study using the Augmented Dickey-Fuller (ADF) test.

Model Specification
This study modifies and adapts the model used by Onaolapo (2015). For instance, Onaolapo (2015) investigated the effect of financial inclusion on the economic growth of Nigeria. However, this study chose to examine how financial inclusion contributes to per capita income and poverty alleviation on the empirical front. Thus, the deterministic form of the regression models used in this study is:

\[ \text{PI} = \beta_0 + \beta_1 \text{CBB} + \beta_2 \text{DCB} + \beta_3 \text{BCE} + \beta_4 \text{ATM} + \mu \]

PI and PCI are measures of poverty alleviation in the view of Oluyombo (2013) and Onaolapo (2015). PI = Poverty index, a measure of poverty level
PCI = Per Capita Income, a measure of income level

Financial inclusion was proxy using the following variables:
CBB represents commercial bank branches (per 100,000 adults).
DCB represents Depositors with commercial banks (per 1000 adults).
BCB represents borrowers of commercial bank (per 1000 adults).
ATM represents automated teller machines (ATM/ per 100,000 adults).

\[ \text{PCI} = \beta_0 + \beta_1 \text{CBB} + \beta_2 \text{DCB} + \beta_3 \text{BCE} + \beta_4 \text{ATM} + \mu \]

The above mathematical model is further stated in stochastic forms as:

\[ \text{PI} = \beta_0 + \beta_1 \text{CBB} + \beta_2 \text{DCB} + \beta_3 \text{BCE} + \beta_4 \text{ATM} + \mu \]

**Table 1:** Summary of unit root test

<table>
<thead>
<tr>
<th>Variables</th>
<th>ADF statistics</th>
<th>T-critical values</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>PI</td>
<td>-2.345230</td>
<td>-1.009985</td>
<td>Stationary at level</td>
</tr>
<tr>
<td>PCI</td>
<td>-3.663683</td>
<td>-3.065585</td>
<td>Stationary at level</td>
</tr>
<tr>
<td>CBB</td>
<td>-6.112368</td>
<td>-5.641980</td>
<td>Stationary at level</td>
</tr>
<tr>
<td>DCB</td>
<td>-4.198385</td>
<td>-3.081002</td>
<td>Stationary at level</td>
</tr>
<tr>
<td>BCB</td>
<td>-7.554321</td>
<td>-6.000123</td>
<td>Stationary at level</td>
</tr>
<tr>
<td>ATM</td>
<td>-3.208324</td>
<td>-3.098896</td>
<td>Stationary at level</td>
</tr>
</tbody>
</table>

Source: Authors’ computation, 2018.

The results in Table 1 showed that at level, per capita income (PCI), deposit with commercial banks per 1000 adults, commercial bank branches (CBB) per 100,000 adults and borrowers of commercial bank (BCB) per 1000 adults were stationary. Poverty index (PI) and Automated Teller Machine (ATM) per 100,000 adults were also stationary at levels. Conventionally, when variables are stationary at levels, the use of the ordinary
least squares multivariate regression methods becomes inevitable.

Table 2: Presentation of ordinary least squares multiple regression results for models one and two. 
Dependent variable: Poverty Index

<table>
<thead>
<tr>
<th>Variables</th>
<th>Coefficient</th>
<th>Prob. value</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>59.900*****</td>
<td>0.267</td>
</tr>
<tr>
<td></td>
<td>(51.047)</td>
<td>(1.173)</td>
</tr>
<tr>
<td>CBB</td>
<td>5.969*****</td>
<td>0.577</td>
</tr>
<tr>
<td></td>
<td>(10.359)</td>
<td>(0.576)</td>
</tr>
<tr>
<td>DCB</td>
<td>-0.091*****</td>
<td>0.555</td>
</tr>
<tr>
<td></td>
<td>(0.150)</td>
<td>[-0.609]</td>
</tr>
<tr>
<td>BCB</td>
<td>-0.939*****</td>
<td>0.477</td>
</tr>
<tr>
<td></td>
<td>(1.272)</td>
<td>[-0.737]</td>
</tr>
<tr>
<td>ATM</td>
<td>6.280*****</td>
<td>0.206</td>
</tr>
<tr>
<td></td>
<td>(4.649)</td>
<td>(1.350)</td>
</tr>
</tbody>
</table>

R-square = 0.773
Adjusted R-square = 0.680
F-statistic = 6.829
Prob.(F-statistic) = 0.005
Durbin-Watson stat = 2.023

Dependent variable: Per Capita income

<table>
<thead>
<tr>
<th>Variables</th>
<th>Coefficient</th>
<th>Prob. value</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>7.372*****</td>
<td>0.031***</td>
</tr>
<tr>
<td></td>
<td>(3.022)</td>
<td>(2.439)</td>
</tr>
<tr>
<td>CBB</td>
<td>0.304*****</td>
<td>0.924***</td>
</tr>
<tr>
<td></td>
<td>(3.158)</td>
<td>(0.096)</td>
</tr>
<tr>
<td>DCB</td>
<td>-0.011*****</td>
<td>0.555***</td>
</tr>
<tr>
<td></td>
<td>(0.046)</td>
<td>[-0.245]</td>
</tr>
<tr>
<td>BCB</td>
<td>0.053*****</td>
<td>0.915***</td>
</tr>
<tr>
<td></td>
<td>(0.497)</td>
<td>(0.107)</td>
</tr>
<tr>
<td>ATM</td>
<td>-0.098*****</td>
<td>0.957***</td>
</tr>
<tr>
<td></td>
<td>(1.789)</td>
<td>[-0.054]</td>
</tr>
</tbody>
</table>

R-square = 0.819
Adjusted R-square = 0.773
F-statistic = 9.407
Prob.(F-statistic) = 0.005
Durbin-Watson stat = 2.244

Where***** represents coefficient values and *** represents P-values

Model 1 results explained 68% systematic variation on the predicted variable, poverty index using the adjusted coefficient of determination, leaving about 34% not
explained due to stochastic error term presence. Model 2 result indicates that financial inclusion explains 77.3% systematic variation in per capital income using the adjusted R- square. It suggests that in the long-run financial inclusion alleviates poverty in Nigeria. It portends that financial inclusion influences people to access capital. The access to cheap fund no doubt promotes investments and reduces unemployment, enhance generation of income, determines standard of living and consequently poverty alleviation. The F – statistic value of 6.829 for model 1 and 9.407 for model 2 reveals that all the explanatory variables put together are statistically significant at 95% levels. It indicates that financial inclusion has the capacity to increase per capita income and alleviate poverty in Nigeria.

The individual coefficient indicates that a unit change in commercial bank branches per 100,000 adults has a positive impact on per capita income and poverty alleviation and is statistically not significant at 95% levels. A unit change in depositors with commercial banks per 1000 adults exerts negative effects on per capita income and poverty alleviation and is statistically not significant at 95% levels. While borrowers from commercial banks per 1000 adults contribute negatively to poverty alleviation, it exerted a positive effect on per capita income and is statistically not significant at 95% levels. Similarly a unit change in automated teller machine (ATM per 100,000 adults) result to a decrease in per capita income, it however positively influences poverty alleviation and is statistically significant at 95% levels in Nigeria in the long – run. The Durbin – Watson statistic values of the two models show the absence of serial Autocorrelation in the time series data.

The empirical results reveal that financial inclusion is found to exert significant impact on per capita income, reduces poverty level and improves standard of living. Specifically, the result shows that commercial bank branches per 100, 000 adults exert positive impact on per capita income, increase standard of living and contributes to poverty alleviation. Depositors with commercial banks per 1000 adults exerted a negative effect on poverty alleviation and are not statistically significant under the reference period. Borrowers from commercial banks per 1000 adults are found to increase per capita income and by extension poverty alleviation and are not statistically significant. The finding also reveals that number of automated teller machines enhanced financial inclusion, income generation and poverty alleviation and was not statistically significant. Due to the relevance of financial inclusion, a lot of policy thrusts have been put in place by the government in Nigeria through her agency like the Central Bank of Nigeria to ensure low income earners and the financially excluded are made to access financial services at the cheapest possible costs. The study finding correlates with Burgess and Pande (2005), Olyombo (2013), Ene and Inemesit (2015) and Fadun (2014). It is however not in tandem with Park and Mercado (2015). The empirical findings are also in consonance with Onaolapo (2015), Bamidele (1997), Bruce, Gine, Golberge and Yan (2011) empirical studies which indicate that the number of bank branches and loans to the rural area and agricultural credit guarantee scheme fund increase per capita income and significantly reduces poverty in the period observed. On the overall, financial inclusion has a positive impact on the reduction of poverty index, increases standard of living, boost economic activities and thus engender economic growth.

5. CONCLUSIONS
This study has empirically examined the impact of financial inclusion on poverty alleviation in Nigeria. The study findings clearly indicate that financial inclusion is found to exert significant impact on per capita income, reduces poverty level and
improve standard of living. Specifically, the result shows that commercial bank branches per 100,000 adults exert positive impact on per capita income, increase standard of living and contributes to poverty alleviation. Depositors with commercial banks per 1000 adults exerted a negative effect on poverty alleviation and are not statistically significant under the reference period. Borrowers from commercial banks per 1000 adults are found to increase per capita income and by extension poverty alleviation and are not statistically significant. The finding also reveals that number of automated teller machines enhanced financial inclusion, income generation and poverty alleviation and was not statistically significant. The implication of these findings is that financial inclusion is a major tool in the alleviation of poverty particularly in developing country like Nigeria. The study recommends that the Central Bank of Nigeria needs to come up with effective monetary policies that can influence financial inclusion and alleviation of poverty. This study also recommended that more branches of microfinance banks with function adequate number of automated teller machines be located in both urban and rural areas. This will encourage accessibility to financial services at affordable cost for poverty alleviation purposes. The study also suggests that future researchers should undertake comparative researches on the effect of financial inclusion at alleviating poverty among countries in the African continents.

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