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## Impact of Financial Inclusion on Economic Growth of Nigeria

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A SPECIAL ISSUE CONFERENCE PROCEEDING PAPER

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# Impact of Financial Inclusion on Economic Growth of Nigeria

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**Abstract:** Financial inclusion recently has assumed a critical development policy priority globally, especially in developing economies such as Nigeria. This paper examined the impact of financial inclusion on the economic growth of Nigeria for the period 2003 – 2015. The study made use of the Ordinary Least Square Technique (OLS) involving multiple regression analysis. Real Gross Domestic Product (RGDP) proxy for economic growth was adopted as the dependent variable while Deposits from rural branches of commercial banks (DRBCB), Loans to rural branches of commercial banks (LRBCB) and ATM transactions (ATM) were adopted as the explanatory variables. The empirical results show that Deposits of rural branches of commercial banks and ATM transactions exert a positive and significant impact on economic growth in Nigeria while Loans of rural branches of commercial banks exert a negative and insignificant impact on economic growth of Nigeria for the period under study. Thus, the paper recommended that rural branches of commercial banks should fashion out more innovative ways of attracting deposits from rural dwellers while also encouraging them to keep making effective use of the ATM cards in some of their transactions due to its numerous benefits. Furthermore, rural branches of commercial banks are encouraged to monitor closely and effectively, their loans in order to ensure that the funds are not misapplied or diverted.

**Key words:** Financial Inclusion, Economic Growth, Deposits, Loans, ATM, Rural Dwellers.

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## 1.0 Introduction

Financial inclusion recently has assumed a critical development policy priority globally, especially in developing economies such as Nigeria. Financial inclusion is seen as the delivery of financial services at affordable costs to some disadvantageous and low income segments of the economy, in contrast to financial exclusion where those services are not available or affordable (Nwanne, 2015). According to Onaolapo (2015), financial inclusion refers to a process that ensures the ease of access to, or availability of and usage of the formal financial system by all members of the economy. It describes a process where all members of the economy do not have difficulty in opening bank account; can afford to access credit and can conveniently, easily and consistently use financial system products and facilities without

difficulty. Stephen et al., (2009) as cited in CBN (2013) occasional paper, posits that financial inclusion is a state in which all people have access to banking and insurance services as well as financial literacy and capabilities. It has also been defined as the state of financial system where every member of society has access to appropriate financial products and services for effective and efficient management of their resources; get needed resources to finance their businesses; and financial leverage to take up opportunities that will lead to increase in their income.

Conversely, financial exclusion refers to the inability of an individual, household or group to access particularly the formal financial products and services. To Mohan (2006), financial exclusion signifies lack of access by segments of the society to appreciate low cost, fair and safe financial products and services from mainstream providers. Financial exclusion may result from factors such as low financial literacy, inadequate facilities by financial institutions, inadequate and inefficient technology-based facilities in financial institutions, inefficient financial system, protocols involved in financial intermediation as well as poverty etc. Sanusi (2011), had attributed the rise in poverty level in Nigeria to the challenges in financial inclusion. According to him, achieving optimal level of financial inclusion in Nigeria means empowering 70.0 percent of the population living below poverty level and this would boost growth and development. Inclusion of this segment of the society would generate multiple economic activities, cause growth in national output and eventually reduce poverty.

According to CBN (2013), achieving pervasive financial inclusion has remained a global challenge with as much as 54.0 percent of adults worldwide being financially excluded, i.e. without access to financial services. This situation is even worse in the developing economies where some countries have as much as 70.0 percent financial exclusion levels. The consequence of financial exclusion is that it minimizes the scale of economic activities that can be financed and thus, limiting the potentials for economic growth. Financial inclusion guarantees improved ability of the poor to save, borrow and make payments throughout their lifetime, thus actively participating in economic activities and contributing to the growth of the economy. It will help pave way for sustainable economic growth by providing financial services to individuals and communities that hitherto have limited or no access to the formal financial sector as evidenced in Nigerian rural dwellers.

The National Financial Inclusion Strategy Report (2012) recommends that the goal of inclusive growth is accomplished when users of financial products have access to a broad range of products created according to their needs and provided at affordable costs. Some of the products include payments, savings, credit, insurance and pensions. An inclusive financial system is now widely recognized as a policy priority in many countries, Nigeria inclusive. Policy makers, regulators including the banking industry have not relented in pursuing inclusive growth agenda of government. The main reason behind this action is that countries pursuing aggressive inclusive growth achieve higher economic growth than those with lower inclusive growth rating. In line with this and over the years, the Nigerian government and the monetary authorities have introduced various policies aimed at deepening financial inclusion within the economy. Some of these policies and programmes include: rural banking programmes aimed at encouraging banking habits among the largely agrarian rural population; establishment of community and microfinance banks, e-banking products, electronic payment system and cashless policy – ATMs, POS and mobile banking; Non-interest banking involving Islamic banking; the National Economic Reconstruction Fund (NERFUND) and Family Economic Advancement

Programme (FEAP) etc. Several academic literature abound in the area of financial development and economic growth (Levine, 1997; Ighodara & Oriakhi 2011; Odedokun, 1989; Demetriode & Hussein, 1996). However, studies on the likely extent to which an inclusive financial system supports or impacts on economic growth in Nigeria are scarce and not exhaustively addressed. This is the motivation for this study as it aims at bridging the lacuna in this area and also complements existing researches.

### **1.2 Problem of the Study**

Nigeria is the most populous African nation with a population of about 180 million. According to EFINA (2016), 40.1 million Nigerian adult population representing 41.6% of the adult population are financially excluded, i.e., they do not have access to deposit money banks, microfinance banks, mobile money, insurance and pension. This could be as a result of the allocation, lack of information, illiteracy and other factors. In order to meet their banking needs, these unbanked or under-banked Nigerians often resort to patronizing the informal and inefficient financial intermediaries like the money lenders which are very risky and costly than the formal institutions. Most of them in the process have lost huge sums of money to these informal financial institutions. The issue of low financial literacy among Nigerians has also encouraged the practice of “hiding technique” of banking and patronage of non-formal institutions.

### **1.3 Objectives of the Study**

The general objective of the study is to examine the impact of financial inclusion on the economic growth of Nigeria.

The specific objectives include:

1. To examine the impact of Bank deposit from rural areas on economic growth in Nigeria.
2. To examine the impact of Bank loans for rural areas on economic growth in Nigeria.
3. To examine the impact of ATM transactions on economic growth in Nigeria.

### **1.4 Research Questions**

The following research questions are raised in this study:

1. To what extent do Bank deposits from rural areas impact on impact economic growth in Nigeria?
2. How far do Bank loans to rural areas impact on economic growth in Nigeria?
3. To what extent do ATM transactions impact on economic growth in Nigeria?

### **1.5 Research Hypothesis**

The following research hypotheses are raised in this work in line with the objectives of the study.

Ho<sub>1</sub>: There is no significant impact of Bank deposits from rural areas on the economic growth of Nigeria.

Ho<sub>2</sub>: Bank loans to rural areas do not significantly impact on economic growth in Nigeria.

Ho<sub>3</sub>: There is no significant impact of ATM transactions on economic growth in Nigeria.

### **1.6 Scope of the Study**

This study on the impact of financial inclusion on the economy of Nigeria covers the period 2003 – 2015. This period was chosen largely due to availability of data, and again, it captures mainly the post-consolidation era in banking in Nigeria. It is believed that the banks are stronger, bigger and more reliable in the post-consolidation era. Again, data obtained within these periods are expected to be good enough to enable the researcher arrive at valid conclusions.

## **2.0 Literature Review**

### **2.1 Conceptual Review**

#### **2.1.1 Concept of Financial Inclusion and Economic Growth**

Financial inclusion is multidimensional, encompassing access to use of and capability in relation to a range of financial services. The centre for financial inclusion provides a somewhat all-encompassing definition. The centre defines financial inclusion as a state in which all who can use them have access to a full suite of quality financial services, provided at affordable places, in a convenient manner, and with dignity for the clients. It is a state where financial services are delivered by a range of providers, most of them private sector, and reach everyone who can use them, including the poor, disabled, rural and other excluded populations (Central Bank of Nigeria, 2013). The increasing importance of financial inclusion as a catalyst for economic growth and development cannot be over emphasized. Financial Inclusion is today widely considered as a right of all citizens to social inclusion; better quality of life and a tool for strengthening the economic capacity and capabilities of the poor in a nation.

The traditional idea behind financial inclusion is the provision of access to and usage of diverse, convenient, affordable financial services. Access to and use of financial services is one of the major drivers of growth. Financial Inclusion covers sustainable, relevant, cost-effective and meaningful financial services for the financially underserved population especially rural areas. The enterprise is at the heart of sustainable development and all efforts are needed for the creation and development of rural dwellers enterprises. Globally, most jobs have been created by small and medium sized enterprises. Nwanne (2015), posits that the provision of affordable financial services to owners of small, medium and large enterprises allows rural dwellers to earn an independent income and contribute financially to these households and communities. This allows families to have access to a decent standard of living which reduces the level of poverty in the country.

When rural dwellers have access to finance under an appropriate structure and management, it enables them to do whatever they do best and earn money for it. Thus, finance is an essential input, and if not available, it becomes a constraint to production since activities must be limited to available finance rather than to the productive potential (Ijaiya, 2010). In Nigeria today, rural dwellers have been identified to account for a large share of the economic activities but they need financial support for effective management and the process of economic development.

#### **2.1.2 Efforts and Strategies of Government At Financial Inclusion In Nigeria**

Like was earlier pointed out in this work, financial access to all and sundry has been identified as an important policy tool employed by government globally to stimulate growth in world economies. Over the years in Nigeria, the government and monetary authorities have introduced varying policies and programmes designed to facilitate access of the financially excluded to formal financial services. Some of these according to the CBN (2013) include:

1. The adoption of the rural banking programme in the late 1970s. The scheme was introduced by the CBN in 1977 with the goal of achieving one bank branch in each of Nigeria's local government areas. Government hoped that the scheme will encourage banking habit among rural population via the mobilization of savings in the rural areas as well as the provision of credit for the growth of small scale industries and entrepreneurs (Okorie, 1990).

2. Again, to promote increased savings and growth banking habit, the government founded the People's Bank and also facilitated the establishment of Community Banks which later metamorphosed into Microfinance Banks in 2005.
3. E-Banking Products, Electronic Payment System and Cashless Policy. The CBN has in recent times stepped up campaign for banks to invest heavily on other low-cost branchless channels such as ATMs, Point-of-Sale (POS), Mobile Banking etc. This policy is intended to drive financial inclusion based on the implicit assumption that reduced banking cost and more efficient payment system will encourage more people and business to embrace the formal financial services platforms.
4. Non-interest Banking. The CBN also introduced Non-Interest Financial Institutions in 2011. The aim is that Islamic Bank products would bring into the banking sector a large number of the country's population that had earlier stayed away (avoided) from organized conventional financial services, due to their aversion to interest and interest-based products.
5. Some of the other specific institutional initiatives to promote funding and growth of small and medium-scale enterprise (SMEs) and small business included the National Economic Reconstruction Fund (NERFUND) and family Economic Advancement Programme (FEAP). NERFUND was created in 1988 to provide local and foreign funds for small and medium scale businesses, while the FEAP was established principally to assist rural women who were considered not to be having access to finance to grow their businesses.

## **2.2 Theoretical Review**

Based on the nature of this work, the study of financial inclusion of rural dwellers in Nigeria is anchored on two theories: modern development theory and sustainability theory.

### **2.2.1 Modern Development Theory**

The Modern development theory was developed by Burr, HS in the year 1958 and it is a conglomeration or a collective vision of theories about how desirable change in society is best achieved. The theory was based on modernization theory which is used to analyze the way in which modernization processes in a society can take place. The theory looked at which aspect of the economy can foster development and which one that constitutes obstacles for economic growth. This is because the idea of financial inclusion of rural dwellers is the developmental assistance targeted at those particular aspects that can lead to modernization of tradition or backward societies. The earliest principles of development theory can be derived from the idea of progress which stated that people can develop and change their society themselves. This is an indication that this country is meant to be developed by us and not by other foreigner.

### **2.2.2 Sustainability Theory**

Sustainability theory as developed by Felix Ekardt (1986), describes sustainability as a form of economy and society that is lasting and can be fixed on a global scale. The society-changing potential of the claim: More justice between generations, more justice out of sight. Sustainability is just not the general claim to take social, economic and environmental policy serious and to strike a sound balance between these aspects. Sustainability theory tries to explain the potential for long-term maintenance of well-being, which has ecological, economic, political and cultural dimensions will be in the long run. Sustainability requires the reconciliation of environmental, social equity and economic demands to achieve its aim especially in the rural areas.

### **2.3 Empirical Review**

Though there is a dearth of local literature which link financial inclusion to economic growth, some of these studies could be identified here. Nwanne (2015), examined the relationship between financial inclusion and economic growth in Nigerian rural dwellers using descriptive study and content analysis. He found out that the sustainability of financial inclusion to rural dwellers in Nigeria remains the mainstream for economic growth in any country. Onaolapo (2015), in his study of the effect of financial inclusion on the economic growth of Nigeria for the period 1982 – 2012, using ordinary least square technique, revealed that inclusive bank financial activities greatly influence poverty reduction but marginally determine national economic growth. Ogunleye (2009), links financial inclusion to financial stability, stating that the former promotes the later by facilitating inclusive growth. According to Levine (2005), institutional infrastructure of the financial system contributes to reducing financial information asymmetry, contraction in transaction cost, which in turn accelerates growth. Demircuc-Kunt & Levine (2008) also observed that inclusive access to finance is not only pro-growth but also pro-poor as well as reducing income inequality and improving welfare. Obstefield (1994), observed that financial inclusion contributes to economic growth through value creation of small businesses with positive spill-over effects on improvements in human development indicators such as health, nutrition and education and reduction in inequality and poverty. Alper (2008), examined the relationship between financial development and economic growth in Middle East countries as a group by employing panel co-integration for a dynamic heterogeneous panel over a 14 year period (1990 – 2003). A positive and significant equilibrium relationship between financial development and economic growth was established for the Middle East countries.

Calderon & Liu (2002) examined whether all financial developments lead to economic growth naturally. The study found that a mutual Granger causality exists between financial development and economic growth, but financial developments share in causing economic growth is higher in developed countries than in developing countries. Ayadi et al., (2008) investigated the relationship between financial system development and economic growth in post-Structural Adjustment Programme (SAP) economy. The result indicates lack of consistency in the relationship between major variables. In a similar vein, Onwioduokt (2007) examined the impact of financial sector development on economic growth in Nigeria and found evidence of a causal relationship going from financial sector variable to economic growth but with no evidence of feedback on how financial sector indicator impacts positively on economic growth.

Christopoulos et al., (2004) verified whether long-run relationship exists between financial development and economic growth in a multivariate framework for ten developing countries over a 30-year period (1970 – 2000). A panel unit root tests and co-integration analysis in a panel-based Vector Error correction Model, for the sampled developing countries, found unidirectional causality from financial development to economic growth. Subbarao (2009), showed a positive correlation between economic prosperity and wide access to financial services especially amongst the active poor in the rural communities which enable them to save, invest and access credit facilities.

**3.0 Methodology**

**3.1 Research Design**

In this study, ex-post facto design was adopted in obtaining, analysing and interpreting data relating to the objectives of this study. This design enables the researcher to observe variables over a long period of time.

**3.2 Nature and Source of Data**

Secondary data sources were used in this work. Data were mainly obtained from published materials of the Central Bank of Nigeria Statistical Bulletin as well as others from the internet.

**3.3 Description of Research Variables**

Variables in the work include both dependent and independent variables.

**3.3.1 Dependent Variable**

The dependent variable in this work is economic growth. Real Gross Domestic Product is adopted as the proxy for economic growth in line with works of Khaled & Samer (2006), and Onaolapo 2015. GDP describes the total money value of output (goods and services) within a country at a given period of time usually one year.

**3.3.2 Independent Variables**

The major explanatory variables in use in this study are Deposits from rural branches of commercial banks (DRBCB), Loan to rural branches of commercial banks (LRBCB) and Automated Teller Machine transactions (ATM).

**3.4 Techniques of Analysis**

The Ordinary Least Square (OLS) technique involving multiple regression analysis is adopted here to evaluate the extent to which elements of financial inclusion impacts on the performance of the Nigerian economy. The choice of this technique is on the premise that the OLS is assumed to be the best linear unbiased estimator.

**3.5 Model Specification**

The model is generally specified as:

RGDP = f (FI) .....1

RGDP = f (DRBCB, LRBCB, ATM).....2

The equation can be re-written thus in line with the objectives of this study:

RGDP =  $\alpha_0 + \alpha_1$  DRBCB +  $\alpha_2$  LRBCB +  $\alpha_3$  ATM +  $\mu$  .....3

Where:

GRDP = Real Gross Domestic Product (Proxy for Growth)

F.I = Financial Inclusion, made up of:

DRBCB = Deposits from rural branches of commercial banks.

LRBCB = Loans to rural branches of commercial banks

ATM = Automated teller machine transactions

$\mu$  = Stochastic variable or error term.

RGDP =  $\alpha_0 + \alpha_1$  Log (DRBCB) +  $\alpha_2$  Log (LRBDB) +  $\alpha_3$  Log (ATM) +  $\mu$ .....4

The model is adopted and modified from the works of Onaolapo (2015).



**4.0 Data Presentation and Analysis**

**4.1 Data Presentation**

The data below will be used in the analysis and testing of the hypotheses of this study.

**Table 4.1 RGDP, DRBCB, LRBCB and ATM FIGURESS FROM 2003 – 2015 in (₦'Billion)**

YEAR	RGDP	DRBCB	LRBCB	ATM	LOGRGDP	LOGDRBCB	LOGLRBCB	LOGATM
2003	31709.45	20551.8	11251.9	12	4.501189	4.31285	4.051226	1.079181
2004	35020.55	64490	34118.5	43.4	4.544323	4.809492	4.53299	1.63749
2005	37474.97	18461.9	16105.5	173.2	4.573741	4.266276	4.206974	2.238548
2006	39995.5	3118.6	24274.6	642.4	4.602011	3.49396	4.385152	2.807806
2007	42922.41	3082.3	27263.5	1315.6	4.632684	3.488875	4.435582	3.119124
2008	46012.52	13411.8	46521.5	3997.1	4.662876	4.127487	4.667654	3.601745
2009	49856.1	3296.2	15590.5	5486	4.697718	3.518014	4.19286	3.739256
2010	54612.26	20800	16556	3997.1	4.73729	4.318063	4.218955	3.601745
2011	57511.04	20200	19980.3	15617.4	4.759751	4.305351	4.300602	4.193609
2012	59929.89	20300	22580.3	19846.6	4.777643	4.307496	4.35373	4.297686
2013	63218.72	21800	739923.3	28289.4	4.800846	4.338456	5.869187	4.451624
2014	67152.79	396375	868947.8	36798.8	4.827064	5.598106	5.938994	4.565834
2015	69023.93	82765	36192.2	45308.2	4.839	4.917847	4.558615	4.656177

Source: CBN Statistical Bulletin

**4.2 Data Analysis**

**4.2.1 Multiple Regression Test**

Table 4.4: Ordinary Least Squares (OLS) Result for the model

Dependent Variable: LOG(RGDP)

Method: Least Squares

Date: 04/17/19 Time: 17:15

Sample: 2003 2015

Included observations: 13

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	9.783224	0.110072	88.88032	0.0000
LOG(DRBCB)	0.039519	0.011168	3.538627	0.0063
LOG(LRBCB)	-0.008847	0.012397	-0.713616	0.4936
LOG(ATM)	0.091948	0.005636	16.31293	0.0000
R-squared	0.977383	Mean dependent var	10.79667	
Adjusted R-squared	0.969844	S.D. dependent var	0.257653	
S.E. of regression	0.044743	Akaike info criterion	-3.128109	
Sum squared resid	0.018017	Schwarz criterion	-2.954279	
Log likelihood	24.33271	Hannan-Quinn criter.	-3.163839	
F-statistic	129.6429	Durbin-Watson stat	2.120409	
Prob(F-statistic)	0.000000			

Source: Author's Computation Using E-Views

Critical Values:

(a) t-statistic,  $t_{0.05} = 1.782$

(b) F-statistic,  $F_{0.05}(3, 9) = 3.86$

The analysis of the result obtained in table 1 above was done in line with the economic criteria, statistical criteria and econometric criteria. First, the result shows that there exists a positive and significant relationship between deposits of rural branches of commercial banks and economic growth (proxied by real gross domestic product) in Nigeria. This result conforms to economic theoretical expectation because as commercial banks (whether in the rural or urban areas) mobilize more deposits from their customers, their capacity to grant more loans increase and economic growth is enhanced. From the result, one percent increase in deposits of rural branches of commercial banks lead to 0.04 percent increase in real gross domestic product (proxy for economic growth) in Nigeria. The computed t-statistic for deposits of rural branches of commercial banks (3.54) is greater than the tabulated (critical) t-statistic (1.78) at five percent level of significance. To confirm the reliability of this result, we observe that the probability value of deposits of rural branches of commercial banks (0.0063) is less than the test significant level (i.e.  $P < 0.05$ ). With this, we conclude that deposits of rural branches of commercial banks have significant effect on economic growth in Nigeria.

Second, the result reveals that there exists a negative and insignificant relationship between loans granted by rural branches of commercial banks and real gross domestic product (proxied by real gross domestic product) in Nigeria. This result does not conform with economic theoretical expectation because as the commercial banks (rural and urban branches) increase their loans availability to their customers, it is expected to lead to greater economic activities and higher economic growth. From the result in table 1 above, one percent increase in loans granted by rural branches of commercial banks lead to 0.01 percent decrease in gross domestic product in Nigeria. To ascertain the impact of loans of rural branches of commercial banks on economic growth (proxied real gross domestic product), we observe that the computed t-statistic for loans of rural branches of commercial banks (0.71) in absolute term is less than the tabulated (critical) t-statistic (1.78) at five percent level of significance. As a confirmation, the study reveals that the probability value of loans of rural branches of commercial banks (0.4936) is greater than the test significant level (i.e.  $P > 0.05$ ). Hence, we conclude that loans granted by rural branches of commercial banks do not have significant effect on economic growth in Nigeria.

Third, the result reveals that there exists a positive but significant relationship between value of automated teller machine transactions and real gross domestic product (proxied by real gross domestic product) in Nigeria. This outcome conforms to economic theoretical expectation because as the value of transactions done using the automated teller machine (ATM) increases, economic growth is expected to increase. From the result in table 1 above, one percent increase in value of transactions involving automated teller machine leads to 0.09 percent increase in gross domestic product (proxy for economic growth) in Nigeria. To appraise the impact of ATM transactions on economic growth, we observe that the computed t-statistic for ATM (16.31) is greater than the tabulated (critical) t-statistic (1.78) at five percent level of significance. As a confirmation, we see that the probability value of ATM (0.0000) is less than the test significant level (i.e.  $P < 0.05$ ). Hence, we conclude that value of ATM transactions have significant effect on economic growth in Nigeria.

The coefficient of determination (adjusted R-squared) shows that 97 percent of the

variations in economic growth in Nigeria are caused by changes in deposits of rural branches of commercial banks, loans of rural branches of commercial banks and value of automated teller transactions. Therefore, the remaining 3 percent of variations in economic growth in Nigeria are caused by other factors not included in the model. This represents a very good-fit. The computed F-statistic (129.64) is greater than the tabulated (critical) F-statistic (3.86) and this indicates that the model adopted for the study is significant as well as reliable and can be used for sound policy making. Finally, the Durbin-Watson statistic (2.12) falls within the permissible region (i.e.  $2 < DW < 4$ ) and this indicates that there is no presence of autocorrelation. Thus, the regression result is not spurious.

#### **4.3 Test of Hypotheses**

(i)  $H_0$ : Deposits of rural branches of commercial banks do not have significant impact on economic growth in Nigeria.

**Decision:** The decision rule follows that if the computed t-statistic is greater than the tabulated (critical) t-statistic, we reject the null hypothesis and vice versa. From the result in table 1 above, the computed t-statistic for deposits of rural branches of commercial banks is greater than the tabulated (critical) t-statistic at five percent level of significance. Hence, we reject the null hypothesis that deposits of rural branches of commercial banks do not have significant effect on economic growth in Nigeria and conclude that deposits of rural branches of community banks have a significant impact on economic growth.

(ii)  $H_0$ : Loans of rural branches of commercial banks do not have significant effect on economic growth in Nigeria.

**Decision:** Since the computed t-statistic for loans of rural branches of commercial banks is less than the tabulated (critical) t-statistic at five percent level of significance, we accept the null hypothesis that loans of rural branches of commercial banks do not have significant impact on gross domestic product in Nigeria. Hence, we conclude that loans of rural branches of commercial banks do not have significant impact on economic growth in Nigeria.

(iii)  $H_0$ : ATM transactions do not have significant effect on economic growth in Nigeria.

**Decision:** Since the computed t-statistic for value-added tax is greater than the tabulated (critical) t-statistic at five percent level of significance, we reject the null hypothesis that ATM transactions do not have significant effect on economic growth in Nigeria. Hence, we conclude that ATM transactions exert a significant impact on economic growth in Nigeria.

#### **4.4 Discussion of Findings**

The study reveals that there exists a positive and significant relationship between deposits of rural branches of commercial banks and gross domestic product (proxy for economic growth) in Nigeria. This outcome is in conformity with economic theoretical expectation because as rural branches of commercial banks mobilize more and more deposits, their ability to extend credit facilities to the rural dwellers increases leading to an increase in economic or business activities. With increase in business or economic activities, productivity is increased which ultimately leads to increase in economic growth. Thus, it is not surprising as evidenced in the Nigerian case based on the result obtained in the study that, as deposits mobilized by the rural branches of commercial banks increase, economic growth also increase. This finding corroborates Nwaeze, Michael & Nwabekee (2014) which found a positive and significant relationship between total bank deposits and economic growth in Nigeria. Perhaps, this finding may be attributed to the inclusiveness associated with opening up of rural branches by the commercial banks. As rural

branches are opened by the commercial banks in Nigeria, it saves transportation costs and also acts as an incentive for the unbanked. Thus, those in the rural areas who ordinarily would not have had any business of depositing their monies in the banks can now do so. With this, the total deposits mobilized by the commercial banks increase thereby leading to increased profitability by the banks, increased ability of the banks to lend, increased investments, and ultimately increased productivity. Overall, economic growth in Nigeria is enhanced.

Second, the study reveals that there exists a negative and insignificant relationship between loans of rural commercial banks and gross domestic product (proxy for economic growth) in Nigeria. This finding contrasts with economic theoretical expectation because as the rural branches of commercial banks grant loans to their customers it is expected that economic growth would be enhanced. Surprisingly, the outcome of this study argues otherwise as evidence here shows that the higher the loans of rural branches of commercial banks in Nigeria, the lower the economic growth. This finding contrasts with Ibrahim, Akano & Kazeem (2015), which found a positive relationship between bank credit and economic growth in Nigeria. Perhaps, this finding can be attributed to misallocation of bank loans by Nigerians (whether urban dwellers or rural dwellers). For instance, individuals present business proposals to the banks and based on this proposal the banks offer them credit facility but instead of using the money borrowed to carry out the project for which it was meant for, they often resort to use it for chieftaincy titles, building mansions in the village, marrying new wives etc. Because this money has become misallocated, the investment that would have been borne is destroyed, productivity is adversely affected, employment opportunities that would have been created is destroyed and ultimately increased economic growth that would have been enhanced is rather destroyed. Thus, it is not surprising that as rural branches of commercial banks offers more loans to their customers, economic growth in Nigeria rather than being enhanced is declining.

Third, the study reveals that there exists a positive but significant relationship between ATM and gross domestic product (proxy for economic growth) in Nigeria. This finding conforms to economic theoretical expectation owing to the fact that as value-added tax revenue increase, economic growth increases. The positive link between ATM transactions and economic growth (proxied by gross domestic product) in Nigeria is not surprising because ATM being an inclusion strategy enhances economic activities. This finding corroborates the position of Siyanbola (2012) and Oginni et al., (2013) where a link between e-banking and economic growth was established.

## **5.0 SUMMARY, CONCLUSION AND RECOMMENDATIONS**

### **5.1 Summary of Findings**

The following findings were made in the study and they include:

- (i) There is a positive relationship between deposits of rural branches of commercial banks and economic growth in Nigeria as well as the fact that deposits of rural branches of commercial banks have significant impact on economic growth in Nigeria.
- (ii) There is a negative relationship between loans of rural branches of commercial banks and economic growth in Nigeria. Again, loans of rural branches of commercial banks do not have significant impact on economic growth in Nigeria.
- (iii) There is a positive and significant impact of ATM transactions on economic growth in Nigeria.
- (iv) Overall, financial inclusion has a significant impact on economic growth in Nigeria.

## **5.2 Conclusion**

The study broadly investigated the impact of financial inclusion on economic growth in Nigeria. To achieve this broad objective, the study specifically investigated the impact of deposits of rural branches of commercial banks, loans of rural branches of commercial banks and ATM on real gross domestic product in Nigeria. Hence, deposits of rural branches of commercial banks, loans of rural branches of commercial banks and ATM served as proxies for financial inclusion and the independent variables while real gross domestic product served as a proxy for economic growth as well as the dependent variable. The study employed the Ordinary Least Squares (OLS) multiple regression technique in order to assess the impact of the independent variables on the dependent variable. From the empirical result obtained, the study revealed that deposits of rural branches of commercial banks and ATM transactions have significant impacts on economic growth in Nigeria while loans of rural branches of commercial banks do not have significant impact on economic growth in Nigeria for the period under study.

## **5.3 Recommendations**

The following recommendations are made in line with the findings of the study:

- (i) Rural branches of commercial banks should fashion out more innovative ways of attracting more deposits from the rural dwellers as a way of contributing more to the economic growth of Nigeria. This can be achieved by creating platforms that would make depositing money easier and accessible.
- (ii) Rural branches of commercial banks should closely monitor the loans they granted to their customers to make sure that sure loans are not misallocated. They can do this by periodically visiting the project sites or supervising the financial records of the businesses opened through bank loans.
- (iii) More rural branches of commercial banks should be opened to reach the largely more remote areas of Nigeria where people do not yet have access to financial or banking services. This will strengthen the financial inclusion drive thereby increasing economic growth in Nigeria.
- (iv) Rural branches of commercial banks should keep encouraging their customers to always make use of their ATM as it has numerous benefits of enhancing economic activities.

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