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Evaluation of The Nexus Between Financial Inclusion and Economic Growth in Nigeria (1980-2020)

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ABSTRACT: *The focus of financial inclusion is the easy access of financial services to the populace to tackle poverty, improve living standard and address the general welfare of the people for the purpose of enhancing economic growth. This paper examines how financial inclusion relates with economic growth in Nigeria. Data was obtained from the bulletins of the Central Bank of Nigeria covering the period 1981 to 2020. Statistical analysis involves the use of descriptive statistics, Johansen Co-Integration Test, Phillips-Perron Unit Root Test, Pairwise Granger Causality and Error Correction Model. To estimate the hypotheses formulated in alignment with the set objectives., the Error Correction Model was used. Economic growth, the dependent variable, was proxied by Gross Domestic Product, while total bank deposit and total credit disbursement constitute what was used to proxy the independent variable financial inclusion. The Error Correction Model result shows that there was a positive and statistically significant relationship between total bank deposit and gross domestic product. Total credit disbursement has a negative and an insignificant relationship with gross domestic product. The result from the study validates the finance led growth hypothesis and established that finance is one of the factors that causes economic growth in Nigeria. The consequence of this findings is that policy makers should pay more attention on long run financial policies that can enhance effectiveness of the financial sector in promoting growth. In addition, the CBN should focus on reduction of interest rate of banks in other to increase financial intermediation.*

KEYWORDS: economic growth, loan, financial inclusion, financial exclusion, total bank deposit,

INTRODUCTION

The delivery of cheap and affordable financial services to areas where they are in short supply or where the people cannot afford them is known as financial inclusion (FI). According to Nwanne,

(2015); FI is the timely delivery of financial services at affordable cost to the disadvantaged and low-income group while Serrao et al. (2013) defined FI as the process that ensures availability of formal financial services to every member of the economy, that is, no member of the economy is excluded from accessing and using the different channels of formal financial services.

Over the years, FI as a subject, has gained the attention of the entire world in various discussions on the world economy and development finance. The reason for this focus on FI can be traced to the identified capacity of FI to propel economic growth and ensure sustainability of an economy. According to Onaolapo, (2015) and Uma, et al. (2013), FI describes a process whereby the opening of bank account is easy, convenient, and affordable. It was also opined that FI serves as the bench mark to measure how formal financial services reach the common man in any economy. FI is also defined as a cautious effort which makes people in the categories of marginalized, poor and those with vulnerability to below standard economic power to engage in formal economic processes with access to and ability to use formal financial service at regular occasions. A state whereby every member of the society has equal access and opportunity to financial products that will enable them to effectively manage their business and financial products. Businesses use FI as a tool to leverage on new potential business opportunities which eventually will lead to increase in their income (Uruakpa et al. 2019). The provision of financial services to the poor, disadvantage group and all adults in the society is known as FI (Soyemi et al, 2020).

From another perspective, financial exclusion is the inability of individual, household, business and organization to access formal financial products, it signifies lack of access to safe, appropriate, and low-cost financial services (Mohan, 2006). Several factors result to individual, household, state, community and various groups to become financially excluded, a few of which include, low level of technological development, outdated technology-based facilities, inefficient financial system, and rigorous protocols involved in banks' financial intermediation activity.

According to the World Bank 2008 report, a well-organized financial system helps in the re-distribution of income, reduce poverty in developing countries and protect them against economic shocks and as such service provided by FI is essential for this to take place. Schumpeter, (1911) also supports World Bank discovery, he asserted that financial education is essential for financial intermediation. The federal government of Nigeria has in the past initiated several schemes which were targeted at rural areas in the country, the rural banking programme, and the rural credit scheme were among few of the numerous government concessions effort targeted at reducing the number of persons who were financially excluded in the rural area.

FI is an explicit strategy targeted at accelerating inclusive economic growth (Karlan et al. 2014). The Microfinance policy was introduced in the year 2005, to complement the banking sector reform, the policy was also intended to enhance household, entrepreneurs and other small businesses to access financial services both at the micro-and low-income level, which is expected to improve, expand and help micro-entrepreneurs to modernize operation so as to contribute to the nations growth. This policy is also aimed at providing sustainable financial services to actively poor persons and boost production capacity of Micro, Small and Medium Enterprises (MSMEs)

in the country, so that they can contribute to the nation's output (Otiwu et al. 2018). Thus, as far as the social benefit is concerned, FI increases efficiency of banks' financial intermediation and the amount of available savings which propels further production of goods and services. Soyemi et al. (2020) discovered that there has been significant growth in the number of bank branches in the rural area which explicitly promotes FI. Financial Inclusion reduces extreme poverty, improve shared prosperity, standard of living, and quality of life across the countries of the world which will enhance economy growth (Ogbeide & Igbinigie, 2019; World Bank Group, 2017). According to The United Nations Capital Development Fund (UNCDF), FI provides additional means of generating fund to individuals, households, and small businesses, this fund opens to them new economic opportunities such as digital finance innovation.

Over the years, people in the rural areas and the actively poor people has been suffering due to inadequate attention from the financial institutions in Nigeria arising from the inadequate or non-existence of financial intermediation and small business financing by the conventional banks. This has made the rural sector and the actively poor remains heavily constrained in terms of expansion because of the small economic capacity they encounter due to inadequate financial consideration (Otiwu, et al., 2018). There are several reasons why people are financially excluded a few of which include; insecurity, discrimination, illiteracy, insufficient income, excessive bank charges, inability to meet banks' identification requirements, and poverty. All these accounts for the high rate of financial exclusion most especially in the rural area, it also limits entrepreneurs' access to secure additional fund that would have been used to expand production capacity.

Those who are financially excluded from financial services, in most cases, are left with the option of patronizing the likes of the local money lenders. These inefficient and informal financial intermediaries are considered costly and of high risk where countless number of unbanked persons have lost huge sums of money. Low financial literacy among Nigerians has also encouraged patronage of the unconventional and informal intermediaries who take advantage of the financial illiteracy of the financially excluded persons. Financial exclusion is expensive to the society as it forces the un-banked population into non-formal banking sector which is characterized by high interest rate due to the non-inclusion of the non-formal banking structure into any legislative framework leaving both borrowers and lenders are at greater risk of credit default and as such, any form of dispute between borrowers and lenders cannot be settled legally (Dupas et al.2016).

Democracy has favored various establishment of financial institution which has provided the channel for redistribution of income and effective financial intermediation. As such, financial inclusion data reflects financial depth at micro-economic level thus, financial inclusion is critical in the attainment of sustainable economic growth and FI is a driver of social inclusion which is a key driver of sustainable development.

This study therefore investigates how total bank deposit, number of bank branches, and total credit disbursement has helped in accelerating financial inclusion and how it also contributed to economic growth in the country.

CONCEPTUAL REVIEW

Conceptualizing Financial Inclusion and Financial Exclusion

There is no one uniform or standard definition of the terms financial inclusion and financial exclusion. Their definitions are measured on different institutional settings which vary from country to country. However, financial inclusion (FI) is achieved in Nigeria when adults have easy access to financial services and can afford a broad range of financial service to meet their financial needs. Precisely, financial inclusion connects the unbanked people to banking services and other benefits attached to such services (Kama & Adigun 2013). Okaro, (2016) defined FI as the provision of high quality affordable financial product to a broad range of low-income segment in an economy.

In the words of Ajakaiye and Olowookere (2013), total bank deposit can be enhanced when the unbanked groups made up of the underprivileged and poor are included in the financial system. These unbanked groups in their large numbers can contribute significantly towards improving financial stability and growth of the economy of a nation. In contrast, financial exclusion (FE) is the direct opposite of FI, according to Bayero, (2015) FE is the inability to access appropriate formal financial product and services at low cost by certain social groups within a country's financial system (Kama & Adigun, 2013; Onaolapo, 2015). Therefore, when the financial system and the financial development does not consider the total inclusiveness of the citizens (financial inclusion) especially when the inclusion is focus towards the wealthy, it may cause financial exclusion and dampen economic growth (Ajakaiye & Olowookere, 2013). In summary, FI is multidimensional, it encompasses the provision of cheap, affordable, accessible and easy to use financial product.

Government FI Effort and Strategy

It is not only established that economic growth propelled financial development, financial development is a driver of the economic growth of a nation. Financial development and economic growth are phenomena that go together in the same direction. Financial inclusion, which is a feature of development, involves a process that leads to improved quality, quantity and efficiency of financial intermediary services. FI increases savings and enhances productive investment, it plays a significant role by promoting economic growth through financial intermediation. Globally, government employ FI as a tool to stimulate production in the industrial sector. In Nigeria there are several government programmes designed to facilitate formal access to financial services which include; the rural banking programme introduced in 1977 by the Central Bank of Nigeria (CBN). The major goal of this programme was to encourage banking habit among the rural people. The programme was lunched with the goal of establishing at least one bank branch in each local government area (LGA) in the country. Shortly after, the People's Bank, and Community Bank, both banks later metamorphosed into Micro-Finance Banks in the year 2005, were established by the government at different point in time to facilitate and promote rural banking habit, they were agents of financial inclusion in their respective locality. They majorly extend credit facility to small-scale industries and entrepreneurs who literarily do not have banking experience and needed

additional capital for their various businesses. The CBN then stepped up its game by introducing cashless policy, this policy is intended to promote financial inclusion as it uses electronic financial platforms such as Mobile Banking applications, Automated Teller Machines (ATMs), Point-of-Sale (POS), etc. Electronic services, also known as E-Service or E-banking products and several channels were introduced to encourage people in embracing formal financial services in the country.

In the year 2011, the Central bank of Nigeria (CBN) introduced Non-Interest Banking also known as Islamic Banking, with the sole aim of bringing banking services to the grass root most especially those who have at one point or the other patronized conventional financial institution in their locality due to the high interest rate charged by the organized institution and brings into financial inclusion net, people who their religious belief does not support interest on investment.

Financial Inclusion Targets and Strategies for Achieving Success

The increased interest on financial inclusion by the government and policy makers in Nigeria cannot be separated from the far-fetched theoretical and practical evidences associated with financial development and economic growth (Ajakaiye & Olowookere, 2013). This has resulted in the incessant commitment of the Nigerian government towards ensuring complete financial inclusion is of utmost paramount project. Specifically, the CBN identified and clarified the following strategies. Agent banking is one of the major strategies the CBN introduced into the economy; The CBN uses this channel to ensure banking services are provided at retail stores, petrol station and major event centers through Point of Sale (POS) terminals, internet transfer and mobile conventional services such as, mobile banking intermediary virtual money accounts. The intermediary virtual money is capable of increasing the bankability of the population who are excluded from financial services, this invariably will enhance business collaboration between mainstream financial institutions such as, development banks, insurance company, discount houses, corporative union, industrial banks, micro finance banks and many other financial institutions.

THEORETICAL REVIEW

Diffusion of Innovations Theory (DIT)

This study is anchored on the diffusion of innovations theory. This theory was propounded in 1962 by Roger. It was introduced to provide explanation on the reasons behind acceptance or diffusion of new idea and product over a period of time. The theory explains the rationale behind the acceptance of novel ideas or products by people. Adoption is the way and manners people take action or do things in a different way apart from their usual conversant way in the past. It shows how novel technologies are accepted and how the acceptance of the new technologies improve society. It is also a description of peoples' intentions in the course of trying adoption of a new technology to perform activities that they used to perform in their old and traditional way. It is these improvement in society through the ease of use that propelled the acceptance of a novel technology. Roger (2005) opined that what encourage the adoption of new ideas across all frontiers includes complexity, compatibility, comparative advantage, trainability and

observability. In Nigeria, Ugwu (2016) discovered that the flexibility and compatibility attributed to the use of ATM in Nigeria made it easy for ATM cards to be acceptable to a large extent in the country.

Empirical Review

In Nigeria, Soyemi et al. (2020) researched into financial inclusion as a tool towards achievement of sustainable development. The study made use of time series data on human development index, number of bank branches, demand deposit from the rural areas, and loan to rural areas between 2001-2016. The long run fully modified least squares result showed that bank branches has a positive and significant relationship with human development index, this means bank branches between the period of study was on the increase, and as such, it has been able to increase financial inclusion in the country. While the short run error correction model's result revealed that in both lag 1 and 2 bank branches has a negative and insignificant relationship with human development index. This implies that reduction in bank branches and money spent on individual health care reduces resource that could have been used for savings which could have increased the rate of financial inclusion in the country. It has also helped in the re-distribution of income and poverty alleviation. The study thus recommends that monetary authorities in the country need to actively involve rural dwellers in formal financial inclusion, and this can only be done when banks are encouraged to establish more branches in such area.

Otiwu, et al. (2018) investigates the contribution of microfinance bank (MFB) on economic growth in Nigeria. The study revealed that low-cost deposits should be given more priority as this will help the bank mobilize more deposits. Time series data from 1992-2013 was sourced from CBN annual report while the OLS was used for data analysis. It was discovered that customers find it difficult to borrow from MFB because of the high rate at which their deposit is being mobilized. The study also revealed that the establishment of MFB is one of the financial inclusion strategies that has facilitated financial service to the unexplored financially-excluded class in the country. Thus, MFBs should concentrate more on low-cost deposit. Ugbede et al. (2017) empirically examined the effect of FI on Nigeria economy using existing secondary data on rural dwellers deposit and rural dwellers loan from 1982-2014. Judging from the Vector Error Correction Model (VECM) causality result, it was discovered that rural dwellers' deposits with commercial banks have a strong positive influence on the performance of Nigeria economy as virtually all segments of the population have access to financial services. In India, the poverty rate of the people living in the rural area reduced by approximately 17% as a result of various government effort tailored towards opening of bank account (Klapper et al. 2016). It was reported in Malawi, by Brune et al. (2015) that the savings account kept by crop farmers who do not withdraw their savings experienced 21% increase in their crop output, while Muralidharan et al. (2014) also submitted that FI is beneficial to farmers in the payment of agricultural subsidy and salaries and wages. In Nigeria, Okoye, Adetiloye et al. (2020) examined financial inclusion as a panacea for balanced economic development using time series data from 1986-2015. Findings revealed that private sector credit has not significantly influenced gross domestic product but it has reduced poverty rate through rural credit delivery. The study recommended that in order to ensure effective and efficient resource utilization, monetary authorities should strengthen financial institution regulatory

framework. In a similar study, Uruakpa et al. (2019) used OLS multiple regression analysis to empirically explore the critical importance of FI, the study used time series data on Loans to rural branches of commercial banks, ATM transaction and deposits from rural deposit money bank (DMB), for the period 2003-2015. Positive and significant relationship was identified between ATM transaction, deposits from rural DMB and the growth of Nigeria economy. Loans of rural bank branches of DMB revealed a negative and insignificant impact on the Nigeria economic growth. Major among the recommendations was that DMB need to fashion out more innovative attractive ways to entice rural dwellers to keep their excess cash as deposits with them, this will go a long way to ensure more funds are given to deficit spending agents in the county.

Harley et al. (2017) examined the role of financial inclusion in reducing poverty in Africa. To a large extent the regression result has it that bank branches is one of the robust predictors of FI which has helped in reducing poverty in developing economy of Africa, while the contribution of ATMs is minimal. Thus, for ATM to start contributing significantly in the rural area then there is need for technological upgrade in the banking sector. Consequently, government should focus on infrastructural development that will enhance banking services in the future. In Nigeria, Okaro, (2016) explored the role of DMB on poverty eradication. The OLS regression technique was adopted for data analysis. The study discovered that the major traditional activities of DMB which range from the provision of financial intermediation, financial deepening, and financial accessibility significantly influence GDP, and as such, various financial institutional platforms should be adequately equipped such that the ATM and bank branches will be affordable and closer to the disadvantaged economy. Babajide et al. (2020) used survey research design to investigate the nature of FI in two South Western State in Nigeria. The logit regression test was utilized to show differences in FI concentration between the two states, in Lagos state hidden bank charges, and irregular income/loss of job constitute high threat to FI in the state while it was discovered that high maintenance fee charged by banks in Ekiti state also constitute threat to FI in the state. The concentration and magnitude of FI in the two sub-regions vary significantly. In Lagos state, FI has reduced firms cost of production, improved greater liquidity, engenders economies of scale, and higher efficiency since the state has high concentration of financial service providers compared to that of Ekiti state with minimum concentration of financial service provider.

METHODOLOGY

The study adopted the Ex-Post Factor research design. This research design, which is also called investigative econometric research design, undertakes the examination of a data-set and check for possible relationship between variables. Secondary data on the chosen variables were retrieved from published materials of the Central Bank of Nigeria Statistical Bulletin.

Model Specification

This study adopted a model stated below in three forms of relationship.

Functional Relationship:

GDP= f (TBD, TCD) ……. (1)

Where:

GDP = Gross Domestic Product
TBB= Total Bank Deposit
TCD= Total Credit Disbursement

Mathematical Relationship:
Here, the estimation parameters are included and the relationship is restated as:
$GDP= a_0+ a_1 TBD + a_2 TCD$ ……. (2)
Where:
GDP = Gross Domestic Product
TBD = Total Bank Deposit
TCD = Total Credit Disbursement
a_0 = Intercept or constant
a_1, a_2 = Parameters estimation of the individual independent variables.

The Standard or Econometric Relationship:
Due to the fact that there may exists other variables that may influence the behaviour of financial inclusion, as proxy for total bank deposit and total credit disbursement, the error term is introduced to capture these unidentified variables not included in our model.
$GDP= a_0+ a_1 TBD + a_2 TCD +\mu i$ …… (3)
Apriori : $a_1>0, a_2>0$.
Where:
GDP = Gross Domestic Product
TBD = Total Bank Deposit
TCD = Total Credit Disbursement
a_0 = Intercept or constant
a_1, a_2 = Parameters estimation of the individual independent variables
μi = error term

DATA ANALYSIS AND PRESENTATION OF RESULTS

Table 1: Result of Descriptive Statistics

	GDP	TBD	TCD
Mean	30559.50	5149.937	4000.721
Median	6897.480	702.1045	508.3000
Maximum	144210.1	23825.30	17187.77
Minimum	144.8300	10.67690	8.580000
Std. Dev.	41655.33	7406.312	5629.415
Skewness	1.292601	1.207144	1.162438
Kurtosis	3.429111	2.995181	2.873252
Jarque-Bera	11.15954	9.471819	8.809313
Probability	0.003773	0.008774	0.012220
Sum	1191820.	200847.5	156028.1
Sum Sq. Dev.	6.59E+10	2.08E+09	1.20E+09
Observations	40	40	40

Source: E-Views 10 Output (2022)

Table 1 above shows the result of the descriptive statistics. The table revealed that order of the mean, median, minimum and maximum of the variables. GDP has the highest mean 30559.50 and TCD has the lowest mean value of 4000.721. GDP has the highest median score of 6897.480 with TCD having the lowest median score of 0508.3000. Looking at the standard deviation, the highest and the lowest values are 41655.33 and 5629.415 from GDP and TCD respectively. The skewness of the data-set is at highest for GDP with value of GDP 51.292601 and at lowest for TCD with value of 1.162438. The highest value for Kurtosis is from GDP with vale of 3.429111 while the lowest value is from TCD with value of 2.873252.
The probability value of all the variables indicates that all the variables were significant at the test level.

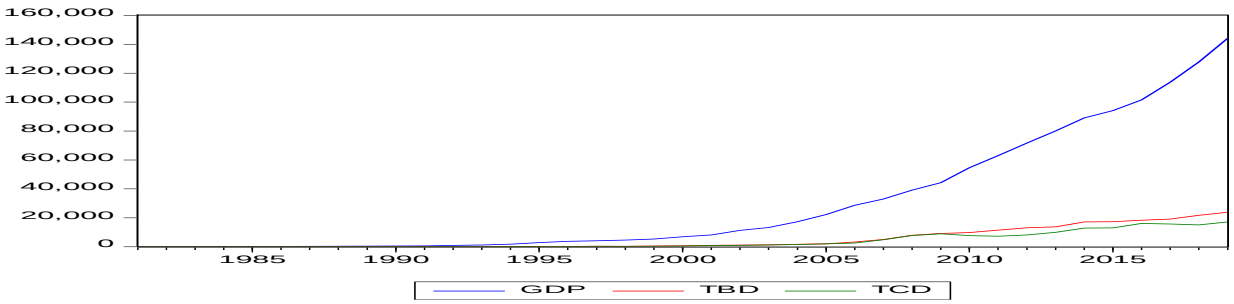

Figure 1: Pictorial representation of descriptive statistics of GDP, TBD and TCD
Source: E-Views 10 Output (2022)

Figure 1 above shows a pictorial representation of descriptive statistics earlier discussed in table 1 above. We can still deduce from the above that GDP portrays all the qualities earlier discussed taking a look at the graph, it can be seen that GDP is tilting upwards than any other line in the graph. TBD and TCD at a point meet in year 2008 which after some month's TBD moved gradually up. This implies that TBD must of necessity increase more than TCD at every point in time. Logically the value of money banks use for intermediation (credit) must always be higher than the banks deposit.

Stationarity Test
To ensure appropriate model estimate, the stationary status of the variables was examined prior to estimation of equation (1). The Phillips-Perron test was used to carry-out the stationary test. The stationarity test, as presented in Table 2, revealed that all the variables are I (1) series, which means that they are integrated at order one.

Table 2: Phillips-Perron (PP) Test

Variable	PP test statistic	Critical Value 5%			Order of Integration	Prob.
		1%	5%	10%		
D (GDP)	-7.64008	-4.23497	-3.54033	-3.20245	I(1)	0.0000
D (TBD)	-5.73790	-4.22682	-3.53660	3.20032	I(1)	0.0002
D (TCD)	-5.05652	-4.22682	-3.53660	3.20032	I(1)	0.0011

Source: E-Views 10 Output (2022)

Test result from Table 2 revealed that the variables attain stationarity at order one 1(1). Thus, the result of the test of the variables showed that the t-statistic of GDP, TBD and TCD are, -7.64008, -5.73790 and -5.05652 All these are greater than the critical values at 1%, 5% and 10% levels. According to Gujarati (2004) if there is at least one co-integrating variable noticed in the model then we can further accept the hypothesis stating that there is a visible trend in the pattern of the data which are under study.

Co-Integration Test

Table 3: Co-Integration test result

Date: 03/24/22 Time: 04:47
Sample (adjusted): 1983 2020
Included observations: 38 after adjustments
Trend assumption: Linear deterministic trend
Series: GDP TBD TCD
Lags interval (in first differences): 1 to 1

Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.45945	32.5873	29.7971	0.0233
At most 1	0.17013	9.21103	15.4947	0.3462
At most 2	0.05438	2.12479	3.84147	0.1449

Trace test indicates 1 cointegrating eqn(s) at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values

Source: E-views 10 Output result (2022)

With the trace statistics in the co-integration test in Table 3 higher than the critical value of 5% in the three hypothesized situations, it can be deduced that long run equilibrium exists among the variables. It also implies that there is one co-integrating equation in the adopted model and this indicates that there exists a mutual stochastic trend among the variables and a long run association among the variables under investigation.

Result of Error Correction Test

The essence here is to correct the observed distortion between the long run and the short run.

Table 4 Error Correction Model's (ECM) Output

Dependent Variable: GDP
Method: Least Squares
Date: 03/24/22 Time: 04:51
Sample (adjusted): 1982 2020
Included observations: 39 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1707.882	659.7364	2.588735	0.0139
TBD	5.542881	0.081891	67.68597	0.0000
TCD	-1.303048	0.982576	-1.326155	0.1945
ECM(-1)	-0.702453	0.138369	-5.076684	-0.0000

R-squared	0.955538	Mean dependent var	35092.22
Adjusted R-squared	0.955156	S.D. dependent var	47470.69
S.E. of regression	3303.897	Akaike info criterion	19.14051
Sum squared resid	3.82E+08	Schwarz criterion	19.31113
Log likelihood	-369.2399	Hannan-Quinn criter.	19.20173
F-statistic	2603.265	Durbin-Watson stat	1.824450
Prob(F-statistic)	0.000000		

Source: E-views 10 Output (2022)

Table 4 shows that the ECM, a measure of speed of adjustment in the long run was at -0.70%. The coefficient of determination represented by adjusted R-squared (R^2), a tool used in measuring goodness of fit of the model, shows the extent to which the variation in the outcome variable (dependent variable) is explained by the independent (explanatory) variables. The value of adjusted R^2 of 0.955156 means that about 96% variation in economic growth (with gross domestic product as proxy) is explained by the explanatory variables used in the model with the balance 4% variation due to other variables not capture or included in the model. This also indicates that the estimated model is fit and rightly-built and a good fit for prediction and policy purpose.

Test of Hypotheses

The test of the hypotheses at 5% significance level leading to acceptance or rejection of the hypotheses are hereby discussed.

Hypothesis 1

$H_0$1: Total bank deposit (TBD) does not have any significant impact on gross domestic product (GDP). **H_A1**: Total bank deposit (TBD) have a significant influence on gross domestic product (GDP).

Interpretation of Result - 1

The ECM result presented in table 4 above shows that total bank deposit (TBD) has a positive coefficient of 5.542881 with 0.0000 P-value which is less than 0.05 level of significance. This suggested acceptance of the alternate hypothesis that there is a positive statistical significant influence of total bank deposit on the dependent variable -gross domestic product.

Hypothesis 2

$H_0$2: There is no significant relationship between total credit disbursement (TCD) and gross domestic product (GDP).

H_A2: There is a significant relationship between total credit disbursement (TCD) and gross domestic product (GDP).

Interpretation of Result - 2

Arising from the ECM test result presented in table 4 above total credit disbursement (TCD) exhibited a negative coefficient with value of -1.303048 and a P-value of 0.1945 which is higher than 0.05 level of significance. This suggested acceptance of the null hypotheses that there is no significant relationship between total credit disbursement and gross domestic product.

Implication of Result

Total Bank Deposit (TBD) and Gross Domestic Product: At 5% significance level total bank deposit (TBD) has a positive and statistical significant relationship (coefficient of 5.542881; P-value of 0.0000) with gross domestic product. This implies that for every one per increase in TBD, there will be about 5.542881% increase in GDP. This meet the apriori expectation of the study. The significant positive relationship is a consequence of the large value of fund banks were able to source from their various customers. The numerous products and services offered by banks give choice to every individual resulting in more deposits and increase the ability of the banks to extend credit facilities to the rural dwellers. This leads to increase in economic activities which stimulates productivity and ultimately results to rapid economic growth. These outcomes are not out of place as evidenced in the Nigerian case because as the deposits sourced by rural branches of banks increase, there is a correspondent increase in economy growth. The total deposits sourced by the banks ultimately increased profitability by the banks.

Total Credit Disbursement (TCD) and Gross Domestic Product (GDP): The independent variable (TCD) revealed a negative coefficient of -1.303048. This means that every one percent increase in TCD will result to about 1.303048 % decrease in GDP therefore our earlier apriori expectation will therefore be rejected. TCD also exhibited a P-value of 0.1945 a figure higher than the threshold of 0.05 significance level. This suggested acceptance of the null hypotheses which states that there is no significant relationship between total credit disbursement and gross domestic product. The negative and insignificant relationship can be traced to a high interest payment on the deposit sourced. The implication of this is that it is not easy for banks to attract borrowing customers because of high interest rate.

Granger Causality Test

Table 5: Granger Causality test result

Pairwise Granger Causality Tests
Date: 03/24/22 Time: 16:40
Sample: 1981 2020
Lags: 2

Null Hypothesis:	Obs	F-Statistic	Prob.
TBD does not Granger Cause GDP	38	2.49775	0.0719
GDP does not Granger Cause TBD		1.34328	0.0623
TCD does not Granger Cause GDP	38	0.93899	0.4012
GDP does not Granger Cause TCD		0.31829	0.7248
TCD does not Granger Cause TBD	38	0.17340	0.8416
TBD does not Granger Cause TCD		2.26189	0.1510

Source: E-views 10 Output (2022)

Test result in Table 5 revealed that there is neither uni-nor bi-directional causality between TBD and GDP, this means past or historical values of TBD does not cause a change in GDP. The null hypothesis is upheld between TCD and GDP, this suggest that TCD does not granger cause GDP neither does past value of GDP cause a change in TCD. Finally, re-enforcement relationship does not exist between TCD and TBD. It means that past value of TCD cannot reliably predict future value of TBD.

FINDINGS, CONCLUSION AND RECOMMENDATIONS.

Financial inclusion adoption is vital for an economy to witness rapid growth. It involves making financial services accessible to the populace for improved welfare and standard of living generally. It also involves addressing poverty with the ultimate aim of promoting economic growth. This study focused on Nigeria, it covered a period of 40 years and investigated the nexus between financial inclusion and economic growth in Nigeria.

Various statistical tools were used for analysis, these are descriptive Statistics, Phillips-Perron unit root test, co-integration test, granger causality test and Error Correction Model. The descriptive statistics showed that, at every point in time, TBD increases more than TCD. This is logical as it means that the total deposit (TBD) use for credit intermediation must always be higher than amount of credit disbursed (TCD). The Phillips-Perron unit Root test revealed that the variables attain stationarity at order one 1(1), meaning that the pattern of the data has a noticeable and visible trend. The co-integration test result as shown in Table 3 indicates the existence of one co-integrating equation in the model at the significant test level of 0.05. This means that there is mutual stochastic trend in the variables, thus revealing the existence of a long run association between the investigated variables. Granger causality test revealed non-existence of re-enforcement relationship between the variables used in the model. This means that neither the

historical values of TBD nor the past values of TCD can predict future value of GDP and vice versa.

The result of the ECM output shows that there exist a positive and statistical significant relationship between total bank deposit (TBD) and gross domestic product (GDP) while there exist a negative and insignificant relationship between total credit disbursement (TCD) and gross domestic product (GDP). The conclusion from these evidences is that financial inclusiveness significantly and positively impacts Nigeria's economic growth. This verified assertion corroborates the finance-led growth hypothesis meaning that financial system in Nigeria does impinge on economic growth. The finance-led growth hypothesis suggests a supply-leading relationship between financial sector and economic growth. The finance-led growth hypothesis, according to McKinnon (1973), argues that where the financial sector is efficient, the available limited resources will be channeled from surplus units to the deficit units to enhance a sustainable growth of the economic sector.

The study recommends that to increase the total fund available for intermediation purpose, Nigerian banks should focus on strategies to increase total bank deposit (TBD). Hence to achieve this, financial products that will reach the financially excluded people within the economy should be developed by banks. Government at all levels should provide enabling and sustainable business environment. They should also increase the efforts in creating financial awareness that can engender more public trust in the country's financial system to enable the financially exclusive public partner with the financial sector for enhancement of savings and investment. The Central Bank of Nigeria (CBN) should continue with review of policies that would stimulate interest rate on deposits and cost of credit.

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