Czech University of Life Sciences Prague

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Department of Economics

Master's Thesis

Economic Analysis of Financial Inclusion in Nigeria

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DIPLOMA THESIS ASSIGNMENT

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Thesis title

Economic analysis of financial inclusion in Nigeria

Objectives of thesis

The main objective of this study is to evaluate the economic analysis of financial inclusion in the study area (Nigeria) to enable the country come up with a national strategic plan that will yield significant increase financial inclusion in the country. The study will specifically look at the following:

To determine the main drivers of financial inclusion in Nigeria.

To investigate why Nigerians are reluctant to possess bank account in Nigeria.

To find out why Nigerians seek for credit from financial institutions.

To ascertain why Nigerians are declined credit from banks.

Methodology

The study will use a secondary data, specifically, data will be acquired from the Nigeria Statistical Service for the analysis. The database covers information on Nigerian households in all the 36 states in Nigeria. Information on household features, Health, Education, Migration, conditions of housing, Employment, agriculture, Tourism, income as well as financial services accessibility will all be obtained from the data. The study will employ a simple random sampling technique, 1,200 enumeration areas will be considered in the sur- vey with a sample of 18,000 households. The study will adopt the quantitative research design, specifically, a survey study. The quantitative research method will be selected as appropriate because it enables the re- searcher made use of probit model to establish the relationship between the dependent and independent variables.

The proposed extent of the thesis

60 – 80

Keywords

Financial inclusion, Bank Account, House hold, Credit, Savings, GDP

Recommended information sources

Eldomiaty, T., Hammam, R., & El Bakry, R. (2020). Institutional determinants of financial inclusion: evidence from world economies. International journal of development issues, 19(2), 217-228. ISSN:1446-8956.

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Declaration

I declare that I have worked on my master's thesis titled "Economic Analysis of Financial Inclusion in Nigeria" by myself and I have used only the sources mentioned at the end of the thesis. As the author of the master's thesis, I declare that the thesis does not break any copyrights.

In Prague on the 31st March, 2023.   _____

Unokhoghie Cornelius

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Economic Analysis of Financial Inclusion in Nigeria

Abstract

Recent years have seen a greater emphasis placed on the value and advantages of an economy's optimal financial inclusion. The ability to use formal financial services helps reduce extreme poverty, promote inclusive and sustainable development, and increase share prosperity. However, despite the perceived benefits accruing from optimal financial inclusion in an economy. Many people are still unbanked, especially in sub-Saharan Africa. Therefore, the purpose of this study is to investigate the main drivers of financial inclusion, reasons Nigerians are reluctant to possess bank accounts in Nigeria, why Nigerians seek credit from financial institutions, and reasons why such requests are denied. This study adopted the time series regression estimation technique to test financial inclusion's influence. Secondary Data were sourced from the World Development Indicator website for the identified variables and were tested subsequently. It was concluded that none of the variables were stationed at I(2). Because of that, dynamic ordinary least square was appropriate for the study. GDP, level of education, urbanization rate, mobile phone penetration, and gender inequality had a significant effect on financial inclusion. Also, the study found that easy access, individual factors, and minimum balance had a significant effect on individual reluctance in opening an account. Also, the study found that interest rate, poverty, and level of education have a significant effect on credit from banks. Also, the study found that bank non-performing loans, inflation, and interest rate of treasury bills had a positive and significant effect on credit decline from financial institutions. The study recommended that more financial institutions, such as microfinance, savings and loans firms, and rural banks, should be formed in Nigeria's urban and rural areas to engage more families in the financial sector. This will allow households to have access to funds to engage in productive endeavors, which will result in better household social welfare.

Keywords: Financial Inclusion, Nigeria, Financial Intermediation, economic growth, small and medium enterprise, Banking reforms, financial literacy, Unbanked, banked, fintech, finance

Economic Analysis of Financial Inclusion in Nigeria

Abstrakt

V posledních letech byl kladen větší důraz na hodnotu a výhody optimálního finančního začlenění ekonomiky. Schopnost využívat formální finanční služby pomáhá snižovat extrémní chudobu, podporovat inkluzivní a udržitelný rozvoj a zvyšovat prosperitu akcií. Navzdory vnímaným výhodám plynoucím z optimálního finančního začlenění do ekonomiky. Mnoho lidí je stále bez bank, zejména v subsaharské Africe. Účelem této studie je proto prozkoumat hlavní faktory finančního začlenění, důvody, proč se Nigerijci zdráhají vlastnit bankovní účty v Nigérii, proč Nigerijci hledají úvěr od finančních institucí, a důvody, proč jsou takové žádosti zamítnuty. Tato studie přijala techniku odhadu regrese časových řad k testování vlivu finanční inkluze. Sekundární Data byla získána z webu World Development Indicator pro identifikované proměnné a následně byla testována. Byl učiněn závěr, že žádná z proměnných nebyla umístěna na I(2). S ohledem na to byl pro studii vhodný dynamický obyčejný nejmenší čtverec. HDP, úroveň vzdělání, míra urbanizace, penetrace mobilních telefonů a nerovnost pohlaví měly významný vliv na finanční začlenění. Studie také zjistila, že snadný přístup, individuální faktory a minimální zůstatek měly významný vliv na individuální neochotu při otevírání účtu. Studie také zjistila, že úroková sazba, chudoba a úroveň vzdělání mají významný vliv na úvěry od bank. Studie také zjistila, že bankovní nesplácené úvěry, inflace a úroková sazba pokladničních poukázek měly pozitivní a významný vliv na pokles úvěrů od finančních institucí. Studie doporučila, aby v městských a venkovských oblastech Nigérie bylo vytvořeno více finančních institucí, jako jsou mikrofinanční, spořitelní a úvěrové firmy a venkovské banky, aby se zapojilo více rodin do finančního sektoru. To umožní domácnostem přístup k finančním prostředkům, aby se mohly zapojit do produktivního úsilí, což povede k lepšímu sociálnímu zabezpečení domácností.

Klíčová slova: Finanční začleňování, Nigérie, finanční zprostředkování, hospodářský růst, malé a střední podniky, bankovní reformy, finanční gramotnost, nebankovní, banked, fintech, finance.

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1.0 Introduction

1.1 Background of the study

Much research has acknowledged how the growth of the financial sector contributes to a country's economic advancement (e.g., Kaburu, 2012; Khan et.al, 2018; Amaral & Quintin, 2018). The use of financial services is skewed towards the wealthy and those who are already well-off, while ignoring the impoverished and those living in remote regions, despite a wealth of evidence supporting the importance of development of the financial industry, which encompasses capital markets and the financial services industry in less developed countries (see Classens, 2018; Singh & Tandon, 2012; Bold, 2020; Martinez & McKay, 2020). The banking industry did not encompass more than 2.5 billion people (Kenya Bankers Association, 2012). According to Mpuga (2018), most financial institutions in Africa are exclusively present in urban areas. In Nigeria, most people are barred from banking due to the significant concentration of financial institutions in urban regions, according to Akpandjar et al. (2013).

Most Nigerians, according to Bawumia et al (2019), are shut out of the country's formal banking system. Even though Abuja only has 13% of Nigeria's population, more than 35% of banks in the country have branches there (ISSER, 2019). Financial inclusion (FI) "may strengthen the household ability to acquire resources and raise their potential to earn more income as well as enhance their ability to manage with risk," according to Dercon et. al. (2014, p. 3). Individuals and households with access to formal financial products are referred to as being financially included. An inclusive financial system "ensures that all bankable individuals and enterprises gain access to financial services such as credit and savings," according to the United Nations (2018, p. 14). Using financial services combines many different activities, including those related to insurance, pensions, the stock market, deposit

accounts, and more. Since it encompasses both banking and insurance activities, the word "financial services" is broad.

Financial Inclusion is receiving more attention from academics, researchers, and other parties involved (see Chikalipah, 2017; Ravalion, 2014; World Bank, 2014). The increased emphasis shows that people are becoming more aware of how crucial FI is to a nation's economic development. The ability to use formal financial services helps to end extreme poverty, promote inclusive and sustainable development, and increase shared prosperity (World Bank, 2014). There is ample research to show that banking activities like savings, insurance, and payments benefit the poor. They would have to rely on their meager savings without FI (e.g., World Bank, 2014; Dermiguc-Kunt et.al, 2014; Nimal, 2019). Companies would have to rely on their meager profits to expand their operations (Nimal, 2019). Most studies have looked at how FI helps with economic development (Dermiguc-Kunt et.al, 2014; Ravalion, 2014). Other studies explain how FI and an absence of financial resources can lead to poverty (Banerjee & Newman, 2013).

Many people are still unbanked despite all the benefits that financial inclusion brings to people, organizations, and nations, especially in Sub-Saharan Africa (World Bank, 2014). According to Dermiguc-Kunt et al. (2014), the number of bank accounts that people would own globally in 2020 increased by 700 million in 2014. Similarly, the number of adults without bank accounts fell to 2 billion.

In addition, Mahmood & Mahmood (2020) claimed that more than 80% of adults in Africa do not have bank accounts. Just 29% of adults in SSA, according to Dermiguc-Kunt et al. (2014), have a bank account. While most of these people may not have bank accounts on purpose, a sizable portion of them is excluded due to travel expenses, costs associated with the process, and complicated verification requirements (Dermiguc-Kunt et al., 2014).

Reiterating their findings from 2018, Dermiguc-Kunt et al. observed that only a small percentage of enterprises (34%) in less developed nations had access to bank lending facilities. Financial inclusion has a significant role to play in Nigeria that cannot be ignored. Nigeria's GDP rose by 3.89% in 2015, according to data from the Nigeria Statistical Service (2016). The service sector had the highest growth rate (5.7%), followed by agriculture (2.4%) and industry (1.2%). The service sector also had the best growth rate over the past year. Banking and insurance made up 22.9% of the service sector's contribution (Bank of Nigeria, 2015).

Notwithstanding the advantages that financial inclusion brings to both people and the nation as a whole, many Nigerians lack access to financial goods. The vast unbanked, primarily impoverished, remain excluded from the financial sector in Nigeria despite a vigorous government drive for financial inclusion and the nation's high teledensity ratio. Accessibility issues, a lack of consumer demand and experimenters, a lack of ecosystem integration, a lack of trust and a preference for successful local savings schemes, as well as governmental short-termism are some of the issues that contribute to this (Olayinka David-West, Oluwasola Oni, and Folajimi Ashiru 2021). The Nigerian government has long enacted several financial regulations intended to attract more unbanked people to the banking industry. To make banking more accessible, for instance, the government eliminated the 17.5% Value Added Tax on financial services. Based on the percentage of Nigerians who do not have access to formal banking, it is crucial to carry out a study that will allow us to identify the causes of financial inclusion as well as the reasons why the majority of Nigerians are still not included in formal banking.

1.2 Problem Statement

Many countries have begun prioritizing stability through regulations in response to the ongoing global banking crisis, while simultaneously attempting to balance the demands of such policy with inclusive growth advancement, particularly in underdeveloped nations (Aryeetey & Kanbur, 2019; Gockel & Akoena, 2018; Mensah, 2017). Moreover, Nigeria has implemented numerous financial reforms to improve the access of small businesses and households with low incomes to financial services (Aryeteey and Kanbur, 2019). While financial inclusion (FI) is a crucial benefit for a nation's economic development, if policymakers are not careful in their efforts to advance FI, they risk increasing the rate of bank defaults, which will have an impact on the banking industry. Reaching out to financial services without the necessary persistence could seriously harm the nation's financial stability.

Even though many more people are now part of the formal financial sector, there has been some progress in this area, but the majority still aren't (Aryeteey and Kanbur, 2019; Beck and Cull, 2015). Just over 40% of people in Nigeria have bank accounts, showing that a larger portion of the population is unbanked. Inactive bank accounts make up about 30% of the total number of accounts in developing nations, according to Dermiguc-Kunt et al. (2014). Also, they noted that in South Africa, over 6 million accounts were opened in just four years, with roughly 500 of those accounts remaining dormant. It is not always guaranteed that a new account will be used frequently. The elements that influence FI in Nigeria and elsewhere have been the subject of numerous research (Chikalipah, 2016; Wale & Makina, 2017; Akpandjar et.al, 2013). Wale and Sex, income, and educational attainment were found to be significant predictors of bank account holding in 18 SSA nations by Wale and Makina (2017). Moreover, research by Akpandjar et al. (2013) showed that the key

influences on household participation in the banking industry include the number of individuals in a household, sex, age, marital status, income, and occupation. Akpandjar et. al (2013) did not consider Nigeria, in contrast to Wale and Makina (2017) who further uncovered why people fail to join the banking system. And as far as I am aware, Nigeria has only had a small number of studies on the subject. However, the researcher thinks that for any financial inclusion policy in Nigeria to be successful, research must be done there to determine why Nigerians are still excluded from banking services.

Several of these initiatives aimed at luring persons without bank accounts into the financial system have failed because decision-makers failed to ask the unbanked why they choose not to use them. We must design a package that will be acceptable to the unbanked if we want to attain or encourage financial inclusion in Nigeria. Also, several research has demonstrated a significant correlation between religious affiliation and disability and financial inclusion (Joy et.al, 2020). To determine how disability and religious affiliation affect FI in Nigeria, however, just a few research have been conducted in Nigeria. Thus, it was decided to incorporate these variables into another research.

2.0 Objectives and Methodology

2.1 Objectives

The main objective of this study is to identify the main determinants of financial inclusion in the study area (Nigeria). The following sub-objectives are:

i.   To examine the main drivers of Financial Inclusion in Nigeria.

ii.   To investigate why Nigerians are reluctant to possess a bank account in Nigeria.

iii.   To assess why Nigerians seek credit from financial institutions.

iv.   To investigate why Nigerians are declined credit from banks.

2.2 Research Questions

i.   What are the main drivers of Financial Inclusion in Nigeria?

ii.   Why are Nigerians reluctant to possess a bank account in Nigeria?

iii.   Why do most Nigerians seek credit from banks in Nigeria?

iv.   What are the reasons why Nigerians are declined credit from financial institutions?

2.3 Methodology

The researcher used several methodical techniques and procedures, all of which are discussed in this section, to make sure the study's objectives were achieved. This section discussed the research strategy, the empirical model's specification, the variables, the data source, and the variables themselves.

2.3.1 Source of Data

For the analysis, the study used secondary data, more specifically, WDI data that were

obtained from the World Development Indicator databank. The database contains statistics on all the variables underpinning the study. The data were used to analyze the studies' objectives. The dataset covered the period from 2001 to 2022.

2.3.2 Population and Sample of Study

Out of the period where banks were introduced, the study concentrated on the 2001 to 2022 period.

2.3.3 Research Design

Specifically, a survey study was used in this study as its quantitative research approach. According to Bryman (2012, p. 5), quantitative research "emphasizes quantification in the collecting and interpretation of data." With the questions starting with how much, how many, and how much, this type of study design seeks to provide solutions (Rasinger, 2013). Since the probit model may be used to determine the relationship between the dependent and independent variables, the quantitative research approach was chosen as the best option. To conduct the analysis, the study used cross-sectional data. Inferential statistics and descriptive statistics were both used in the study.

2.3.4 Data Analysis

The data was analyzed using the dynamic OLS regression approach in the research. When a researcher wants to know if an independent variable predicts a certain dependent variable, he or she uses regression analysis. Dynamic OLS aims to predict a particular dependent variable by determining a collection of factors. Before analyzing the data, it was edited for consistency, correctness, uniformity, and completeness and then tallied. Given that this was a causal design investigation of the influence of Gross Domestic Product per capita, level of education, urbanization rate, mobile phone penetration, access to electricity, gender

inequality, index and financial literacy, and financial inclusion. Again, tables e be used in this research to provide further clarification. The impact of the dependent variable on the interdependent variable was investigated using eviews.

2.3.4.1 Dynamic OLS

One approach for estimating unknown parameters in a linear regression model is ordinary lease square (OLS). OLS uses the principle of least squares to select the parameters of a linear function of a collection of explanatory variables, minimizing the sum of squares of the differences between the observed dependent values in the supplied database and those predicted by the linear function. When the errors are homoscedastic and serially uncorrelated, OLS is consistent with the regressors and exogenous, and optimum in the class of linear unbiased estimators.

When the errors have finite variances, the OLS technique provides a minimal variance mean-unbiased estimation. OLS is the greatest likelihood with the extra assumption that the errors are regularly distributed. The use of OLS in time series data analysis has its drawbacks; the following are some of the issues with employing least square regression;

Presence of outliers: When certain points in the data have abnormally bigger or lower values for the dependent variable when compared to the rest data, OLS depicts inefficiency. Outliers can wreak havoc on prediction accuracy, making conclusions from such data incorrect.

Wrong choice of features: The difficulty in selecting the appropriate explanatory variables for anticipating an issue plagues all regression procedures. It is critical to carefully pick the variables that will be utilized in the regression method, including those that are more likely to have a substantial influence on the dependent variable and excluding those that are unlikely to have much of an effect.

2.4 Model Specification

The initial objective of the research was to analyze the main drivers of Financial inclusion in Nigeria. The model specification from Das (2015) was adopted. This model was adjusted to consider other variables that play a significant role in financial inclusion in the study area, of Nigeria. The model specification has been stated below: $FI_t = \beta_0 + \beta_1 GPD_t + \beta_2 LevEdu_t + \beta_3 UrR_t + \beta_4 MobPhnPen_t + \beta_5 AccElect_t + \beta_6 GenIneq_t + \beta_7 FinLite_t + \varepsilon_t$

Where FI – Financial Inclusion

GDP — - Gross Domestic Produc per Capita

LevEdu — - Level of education

UrR — - Urbanization rate

MobPhnPen — - Mobile phone penetration

AccElect — - Access to electricity

GenIneq — - Gender inequality index

FinLite — - Financial Literacy

t — - time series

e — - error term

2.5 Description of Variables

2.5.1 Dependent Variable

The study's dependent variable was financial inclusions. Access to and usage of financial

services and products, as well as quality measurements, are extensively used factors in evaluating financial inclusion. Access metrics represent the depth of financial access. Adults' use of financial services is measured by use metrics. Quality metrics indicate the level of conformity of financial goods and services to customer demands, the range of alternatives available to consumers, and adults' awareness and comprehension of financial services and products. (World Bank, 2013). A good financial inclusion measure, according to Kempson, Atkinson, and Pilley (2004), should be straightforward, practical, as multidimensional as feasible, and incorporate similar indicators.

In this study, four access and four usage metrics are utilized to assess financial inclusion while considering data accessibility. Indicators of financial access reflect the geographical and demographic penetration of service outlets. Financial use metrics demonstrate how widely it is used and how economical it is. WDI provides data on financial inclusion.

Table 1:Variables description

Variable	Proxy	Source	Expected sign
Financial Inclusion	Account ownership at a financial institution or with a mobile money service provider, primary education or less (percentage of the population aged 15 and up)	WDI (2023)	
GDP per Capita	Gross Domestic Product	WDI (2023)	+/-
Level of education	Educational attainment, at least completed primary, population 25+ years, male (%) (cumulative)	WDI (2023)	+/-
Urbanization rate	Urban population residing in places with elevations less than 5 meters (as a percentage of the total population)	WDI (2023)	+/-
Mobile phone penetration	Mobile cellular subscriptions	WDI (2023)	+/-
Access to electricity	Renewable electricity output (% of total electricity output)	WDI (2023)	+/-
Gender inequality index	Gross tertiary enrolment, gender parity index (GPI)	WDI (2023)	+/-
Financial Literacy	Literacy rate, youth (15-24 years old), and gender parity index (GPI)	WDI (2023)	+/-

Source: Author's construct (2023)

2.5 Diagnostic Test

Before using OLS, various diagnostic tests are run to ensure that the OLS assumption is correct. The following tests were carried out.

2.6 Normality Test

The Classical Linear Regression Model (CLRM) assumes that errors are normally distributed. The Jarque-Bera test is used for this test. The null hypothesis is rejected if the test statistics are significant, indicating that the errors are normally distributed.

2.7 Multicollinearity Test

There is multicollinearity if there is a link between the explanatory variables. However, if the condition is extreme, there is precise multicollinearity, which indicates that one variable explains another variable. As a result, the Variance inflation factor was applied in the study. (VIF). If the VIF is less than five (5), there is no multicollinearity.

2.8 Heteroscedasticity

When the variance of the mistake is not constant, heteroscedasticity arises.

$$\text{Var}(u_i) = \sigma_i^2$$
……………………………………………………………..………..3

However, homoscedasticity occurs when the variance is constant, and therefore

$$\text{Var}(u_i) = \sigma^2$$
……………………………………………………………..………..4

Because of the presence of heteroscedasticity, OLS results are impartial and consistent, but they are not BLUE. That is, the standard errors may be unsuitable, and any inference drawn may be erroneous. The Breusch - Pagan test was employed in this investigation. The null hypothesis is not rejected if the probability value is statistically significant. This means that the model is homoscedastic.

2.7 Autocorrelation Test

Another crucial assumption of CLRM is that mistakes cannot be connected. Thus

$$\text{Cov}(u_i u_j) = 0 \text{ where } i \neq j.$$

Breusch's pagan test was utilized once again. The null hypothesis is not rejected if the probability value is statistically significant. This means that the model has no autocorrelation.

2.8 Stationarity Test

CUSUM/CUSUM2 was used to assess the model's stationarity. If the graph falls inside the band, it indicates that the model is stationary.

2.9 Test for Stationarity (Unit Root Test)

This test aims to look at the individual variables' stationarity or time series properties. The distribution of the time series variable does not alter over time, which is the exact concept of stationarity. As a result of stationarity, the future must be similar to the past, at least in a probabilistic context. However, many economic time series are non-stationary in practice, making traditional OLS-based statistical inferences inaccurate. The aim of these stationarity tests aime the order of integration of and of the variableanyn this analysis and, as a result, the number of times each variable must be differenced to achieve stationarity. Furthermore, it is to eliminate the risk of a false regression. To evaluate the order of integration, this research employs a systematic statistical method based on the augmented Dickey Fuller (1979, 1981) test for the existence of unit roots.

The ADF test for unit root compares the null hypothesis $H0:=0$ to the alternative hypothesis $H1: 0$. As a result, it compares the null hypothesis of a unit root to the alternative of a stationary sequence.

3.0   Literature Review

The research that has been conducted in the past on the variables affecting FI in Nigeria and elsewhere is reviewed in this section. The section provides details on the study's theoretical, empirical, and conceptual foundations as well as an overview of banking in Nigeria and an explanation of its core concepts.

3.1 Banking overview in Nigeria

Colonial Banks were established in Nigeria during the colonial era with the primary goal of serving the economic requirements of the Colonial Government. The Central Bank of Nigeria oversees the regulation of the Nigerian financial system. The two main phases of Nigeria's banking reform are 2018 and 2019. Each stage has a major economic impact: Via the process of mergers and acquisitions, this reform put a focus on bank consolidation. As a result, the 89 existing commercial banks in the nation were reduced to 25, and their base capitalization was raised from $2 billion to $25 billion. In addition to capitalization, the apex bank made investments in banking automation that increase banking returns. For information exchange, the reform created a reporting platform for bank clients. This reform allows commercial banks to increase their level of liquidity by collecting deposits from public sectors and government-owned organizations. The Nigerian National Assembly formed the Asset Management Company of Nigeria (AMCON) in 2019. From commercial banks, the entity purchases non-performing loans. A 50 billion CBN fund and 0.3% of the total assets of the participating commercial banks make up the financing for AMCON. In terms of reporting, it also supports the use of International Financial Reporting Standards (IFRS) for compliance with international reporting requirements. By limiting commercial banks to conducting exclusively banking business, this reform reevaluated the concept of universal banking. Via the establishment of a non-interest bank, the reform also addresses the issue of excessive

banking interest. Sarah Alade, the Deputy Governor of the Central Bank of Nigeria, said that five CEOs of Nigerian banks will be sacked in August 2019. Five successors have been selected with immediate effect, including Suzanne Iroche as CEO of First Bank and Funke Osibodu as CEO of Union Bank of Nigeria.

3.1.1 Nigeria Banking system and Banking reforms

The financial system, in general, consists of more than merely organizations that enable payments and provide credit. All operations that direct actual resources to their intended users are included. It serves as the market economy's core nervous system and is made up of several independent but interdependent parts that are all vital to its effective and efficient operation. Principal agents for accepting obligations and obtaining claims are financial intermediaries like banks and insurance companies. The marketplaces where financial assets are transacted make up the second element, and the infrastructure needed for effective interaction between markets and intermediaries makes up the third. (Soludo; 2004, Adelegan and Oriavwote, 2014).

The relationships between the three elements are unbreakable. To securely exchange claims and access markets to manage the risks associated with their intermediation activities, banks need payment system infrastructure. The financial system runs more effectively and efficiently when there is a solid infrastructure supporting the payment system. (Soludo; 2004, Adelegan and Oriavwote, 2014).

Nigeria's nationwide reform agenda, which aims to reposition the Nigerian economy to become one of the 20 largest economies by 2020, must include banking reform as a key element. As part of the goal, the banking industry is required to effectively carry out its actual

function in intermediation and for banks to be global actors in global financial markets. The Central Bank of Nigeria has previously packaged many reforms in Nigeria. (CBN, 2010).

Generally speaking, the goal of these reforms is to create a strong, stable, trustworthy, and diversified banking system that can support sustainable financial development for economic growth while also ensuring that Nigerian banks actively participate in the national, regional, and international financial systems. (Soludo; 2004, Adelegan and Oriavwote, 2014).

The Nigerian financial services sector has undergone several adjustments since 2015 as a result of financial inclusion, according to the Central Bank of Nigeria (2013):

- **The Nigerian Financial System Strategy 2020 (FSS 2020):** This strategy, which was introduced by the Central Bank of Nigeria (CBN) in 2007, aimed to transform the Nigerian financial industry into a growth engine that would enable Nigeria to rank among the world's 20 largest economies by the year 2020. Financial inclusion was directly addressed by the framework's measures as well.

- **The 2005 Microfinance Policy:** To include the huge and numerous customers of the informal sector, where the majority of the unbanked live, the CBN used this strategy to leverage third-sector entities like market groups, cooperatives, non-governmental organizations, etc.

- **Framework for Non-Interest Financial Institutions:** The fundamental goal of this framework was to draw people into the banking industry who had previously eschewed traditional financial services due to their dislike of interest and interest-based products. The CBN introduced it in 2011.

- **The Cashless Policy:** This strategy, which was introduced in 2012, helped promote, implement, and activate E-channels like ATMs, Points of Sale (POS), and Internet Banking, among other things. The CBN gave instructions to commercial banks to use

this platform to encourage their clients to use formal financial services. Financial inclusion will ultimately increase as a result of this.

- **Improved Payment Systems:** The Nigeria Uniform Bank Account Number (NUBAN), the automated cheque payment system (2003), and the national switch platform were all launched by the CBN in this effort. (2010). These in turn boosted financial inclusion, decreased money outside of the banking system, and increased activity in the country's payments system. (Central Bank of Nigeria, 2012). When all economic groups have equal access to payment flows and other types of banking services, financial inclusion will have been attained. (Central Bank of Nigeria, 2013).

- **Mobile Money:** In 2011, the CBN granted licenses to 14 mobile money operators (M.M.Os), and by 2013, it had granted licenses to up to 26 M.M.Os. As many Nigerians had a mobile phone, M.M.Os were seen to have a huge potential for helping millions of people who are unbanked in both rural and urban areas.

3.2.   Financial Inclusion

Financial inclusion is not easily and clearly defined (Morgan and Pontines, 2014). There are many different approaches to defining financial inclusion (Khan, 2020; Hanning & Jansen, 2019; Demirguc-Kunt & Klapper, 2012). Financial inclusion, according to Hanning and Jansen (2019), aims to bring the "unbanked" into the banking industry so they can have access to banking services such as insurance, payments, saving, and credit transfers. The act of ensuring vulnerable groups, such as weaker parts and low-income groups, have access to financial services and timely, adequate credit when needed at an affordable cost is another definition of FI provided by Khan (2020, p. 3). FI is a grave issue in underdeveloped nations, especially in Africa (Chikalipah, 2017). According to Beck and Cull (2015), compared to those in developed nations, most financial institutions in Africa are less inclusive. Financial

inclusion fosters economic development, according to a G 20 report from 2019 (Zins & Weill, 2016), and this is especially true for the most vulnerable, such as women and children. People can fulfill their basic requirements, such as housing, healthcare, and education, when financial services are accessible to them (Bruhn & Love, 2014). Financial inclusion, according to the World Bank (2012), contributes to both economic growth and the reduction of poverty. Research demonstrated that people who participate in banking can obtain financing for their investments, which reduces poverty and promotes economic growth (Bruhn & Love, 2014; Beck, Dermirguc-Kunt, 2012).

In Nigeria, financial inclusion is becoming a significant problem. Nigeria's banking sector is less inclusive than that of more developed African nations such as South Africa. Several measures have been implemented in recent years by various government bodies to raise the degree of financial inclusion in Nigeria. It enables people to save for the future, invest in education, train their children, and start enterprises, all of which contribute to poverty reduction and economic progress. (Bruhn and Love, 2014; Ozili, 2018). In Nigeria, financial inclusion may lead to economic gains because people with access to formal financial services can engage in education and entrepreneurial activity, which can help to reduce production and boost income (Ozili, 2020; Bruhn & Love, 2014).

3.2.1 Financial Inclusion in Nigeria

Nigeria has a significant financial exclusion problem because most of the country's wealth is still held outside of the banking system. Therefore, throughout the past forty years, the issue of financial exclusion has drawn the attention of numerous governments as a significant economic challenge. Financial inclusion is a state in which all members of a society who may benefit from economic services are provided by a range of suppliers. To be more precise, it alludes to a financial system that supports as many citizens of a nation as feasible.

The Nigerian economy's low-income segments can access financial services through financial inclusion at reasonable costs. (Harley, Adegoke, and Adegbola, 2017). Everyone has access to banking and insurance options in this scenario, along with financial knowledge and skills. It has also been referred to as the nation of the financial device, where every member of society has the right access to appropriate financial services for the efficient management of financial resources and products. It also sources the necessary funding for its organizations and employs financial leverage to increase revenue and earnings for the financial establishment. (Uruakpa, Kalu and Ufomadu, 2019).

With a population of almost 180 million people, Nigeria is Africa's most populous country. Approximately 40.1 million people, or 41.6%, are financially excluded, which implies they do not have access to deposit money banks, microfinance banks, mobile money, insurance, or pensions. (Afolabi, 2020). This might be due to issues like resource allocation, a lack of information, illiteracy, and other factors. These unbanked or underbanked Nigerians usually turn to inefficient informal financial intermediaries like money lenders, which are substantially riskier and more costly than official institutions. This was assessed by the bank based on the banking demands of unbanked Nigerians.

Nigeria's target for financial inclusion, as stated in the National Financial Inclusion Strategy (Revised) in 2018, was 80% financial inclusion by 2020, but only 64% of Nigerian adults were financially included by the end of 2020, despite having Africa's largest economy and five of the continent's seven unicorns. Nigeria was one of the seven nations that accounted for half of the world's unbanked population, according to the World Bank's 2021 Global Findex. Even though the difference between banked and unbanked people has been narrowing since 2011, the number of financially excluded people in Nigeria was predicted to be 40.1 million by the end of 2021.

These figures are not shocking given that 47.25 percent of Nigerians reside in rural areas where they are unable to get effective financial services because the majority of traditional banks do not have substantial branch networks. The gap between the banked and unbanked in Nigeria is, however, steadily shrinking thanks to the growth of fintech and agent banking in the financial sector, and the Central Bank of Nigeria's aim of financial inclusion no longer seems like a pipe dream.

As a result of the COVID-19 outbreak, digital financial transactions increased by 325 percent, from 165.8 trillion in 2019 to 704.04 trillion in 2020. According to statistics from the Nigeria Inter-Bank Settlement System, the quantity of financial transactions in a month has hit an all-time high of 238.7 trillion as of August 2022. (NIBSS). Although Nigerians support the Central Bank of Nigeria's cashless strategy, this does not mean that the unbanked have greater access to these financial services. As a result, fintech is critical to Nigeria's efforts to attain financial inclusion.

By 2040, the Central Bank of Nigeria (CBN) wants to see 95% of the population financially included. The estimate is not nearly as impossibly far-fetched as it may have sounded years ago, thanks to innovations led by fintech, growth in mobile money providers, the recent rise in Nigeria's financial inclusion, and cooperation among stakeholders.

3.2.2 Dimensions of Financial Inclusion

Because of the advantages that come from financial inclusion for governments, several countries have increased their commitment to putting regulations into place that will guarantee that anyone who wishes to be financially included is not excluded or left out of the financial sector (Shehzad & Haan, 2019; Arya, 2014; Sharma, 2016; Dixit, Radhika & Ghosh, 2013). The problem of financial inclusion is more complex (Alliance for Financial

Inclusion, 2012). They claim that based on whether they are excluded, institutions and people can be categorized into two categories. The World Bank (2012) gives a thorough explanation of FI indicators. The three scopes of FI are utilization, access, and quality (Arya, 2014). Access focuses on "the ability of banks to provide financial services and products that are tied to the regulatory market and technology environment," according to Arya (2014, p. 15). Finding out the challenges these banks encounter in providing their services is necessary to analyze access to financial services. Access to it is demonstrated by indicators like point of sale (POS) equipment and bank branch penetration.

Quality is the likelihood that these banks' goods or services will live up to the expectations of their clients or consumers. In other words, it assesses how well these financial institutions can meet or balance the expectations of their customers with the demands placed on their services. A product's quality can be seen by looking at indicators including ease of use, transparency, consumer protection, product fit, and safety. Usage describes how customers use banking services, including how many electronic payments they make, how much money they save, and how many transactions they make per account. One must be provided access to banking operations to use them. Yet, it is important to remember that allowing someone access to banking activities does not guarantee that they would utilize it. Not everyone who refrains from engaging in banking activity should be referred to as a bar. In the table below, the G20 FI indications are illustrated.

Table 2: The G 20 FI indicators

Category	Indicators	Dimension	Aspect
1. Adult Formally Banked	% of individuals who have a formal financial institution account	Usage	
	Number of deposit accounts per 1000 adults	Usage	Individuals
	% of individuals who have at least one loan from a registered financial institution.		Individuals
2. Adults with credit-slated institutions	Borrowing rate per 1000 adults		
	% of individuals who make a payment using their mobile device	Usage	
	The branch count is based on 100,000 adults		Individuals
3. Mobile transaction use	ATM density per 1000 adults	Access	
4. Point of Service	Number of POS terminals per 100,000 people	Access	Physical point of service
5. E-money Account	Number of mobile payment e-money accounts	Quality	
6. Financial Knowledge	Financial Knowlege score		Mobile point of service
	Source of emergency funding		
7. Financial Behavior	The typical fee for creating a basic current account	Quality	Financial Literacy and Capabilities
	The typical cost of keeping a bank account current account	Quality	Financial Literacy and Capabilities
8. Cost of Usage	The average cost of credit transfer		Barriers to use

Source: Global Partnership for financial inclusion

3.3 Factors that promote financial inclusion in Nigeria.

3.3.1 Fintech

The word "fintech," which stands for "financial technology," is used to refer to any new or existing technology or product that disrupts the traditional ways of conducting financial transactions. Fintech introduces a new way to execute financial transactions with little to no human engagement. A boost in smartphone penetration across the country makes it possible for Nigeria's Fintech sector to expand in 2015. Many Nigerians entered the financial sector to take advantage of fintech, which was made available to them via their smartphones and allowed them to monitor their accounts, purchase online, and make bank transfers via mobile apps. Additionally, start-up businesses have been able to develop new business models that need business owners to use financial technology from home rather than pay rent for an actual office. The financial regulator may monitor all financial transactions for fairness and transparency using payment-based fintech methods, as well as identify any suspicious activity linked to fraud and other crimes.

Nigerian fintech initiatives are now in their infancy. Fintech can bring about additional opportunities and concepts if given the chance to reach its full potential. Fintech can change how current financial institutions produce and deliver their goods and services, as well as provide new opportunities for entrepreneurs to grow their businesses. With the use of fintech, access to financial services in Nigeria may be made more democratic or decentralized. The use of cryptocurrencies, blockchain, new digital advising systems, digital advisory trading systems, artificial intelligence, machine learning, electronic peer-to-peer lending, equity crowdfunding, and mobile payment services are examples of these alternatives or concepts. Nigeria should also use robotic advising services that provide personalized, one-on-one assistance with personal budget management. Robo-advisors, or computerized financial

advisors, can be obtained through fintech. The biggest market for robo-advisors right now is the US. Robo-advisors can assist lower transaction fees as well as fixed costs (such as the labor expense of recruiting financial advisors or the expense of leasing physical office space).

3.3.2 Digital Finance: USSD codes, electronic cards, and mobile bank apps

According to a PWC 2017 fintech survey research, 62% of Nigerian consumers will utilize mobile applications to obtain financial services during the next five years. Since USSD codes were introduced in Nigeria, clients have had access to a variety of mobile banking operations. With the hope that the bank would approve the request after receiving the proper access code or passcode, the USSD code is a communication tool that sends a request to a banking system user interface on behalf of the bank customer. In Nigeria, electronic cards have been used since at least 2015, and they have developed into more complex card goods over time, such as ATMs and dollar cards, for example. Debit cards are also commonly utilized in Nigeria. Customers of banks can check their bank accounts remotely and approve financial transactions between parties by using mobile banking apps. The level of financial inclusion in Nigeria has increased thanks to these digital financial solutions.

3.3.3 Authority to reject or accept financial innovation by the financial regulator.

The ability of the financial sector regulator to approve or prohibit financial innovations from functioning in Nigeria is another aspect that has aided in the promotion of financial inclusion in that country. The Central Bank of Nigeria (CBN), the country's financial regulator, is independent and has the authority to accept or reject a company's request to bring financial innovation to the Nigerian financial market. All applications submitted by domestic and international businesses wanting to enter the Nigerian financial sector with innovative financial technology, goods, or services are received and evaluated by the CBN. To make

sure that it is aware of the goals and potential hazards involved with the invention, the CBN should invite the innovation's promoters to a discussion session. The CBN will then determine if the innovations are dangerous, whether the applicant company can internally manage the risk, and whether the innovations will elevate systemic risk to the entire financial system. The CBN will decide whether to accept or reject an offer based on these requirements. To increase the likelihood of getting the regulator's approval for a financial innovation, promoters in Nigeria of that innovation must ensure that the regulators are aware of its goals and the risks it entails. Finally, it is critical to recognize that the Central Bank of Nigeria is more likely to approve any financial innovations that increase the level of financial inclusion in the nation and pose no significant risks to the financial system. (CBN).

3.4   Roles of Banks in Financial Inclusion

It is impossible to overstate the importance of banks in the process of achieving financial inclusion. The consensus is that banks are essential to the process of financial inclusion. Others contend that only an inclusive financial system can advance financial inclusion and that banks will continue to play a crucial role in achieving this goal by offering essential and effective financial services. Therefore, the majority of nations today design their financial inclusion strategies so that banks should promote growth in rural areas. Therefore, the banks must take is important that the banks take action to fulfill their obligations in the financial inclusion process. Nigerian banks are therefore expected to develop the capacity to effectively support and advance the expansion of financial inclusion in the nation. To increase capacity, staff members will need to be trained and given the right tools, especially in the area of financing for rural development. The use of grants and special funding to look for creative ways to deliver services to customers, reduce transaction costs, and improve and optimize the use of existing infrastructure and delivery structures instead of creating new and

expensive ones are some other processes of building a bank's capacity to support and enhance financial inclusion. Banks should work to adapt or launch new financial products, and when necessary, make significant investments in technological research, particularly in fields related to the dynamics of financial transactions and the needs of rural areas and the informal sector.

To reach the low-income and rural population, banks should implement core banking solutions (CBS) that will increase the volume and nature of services needed. After their deployment, the banks must continue to use a multi-channel strategy that includes cards, micro-ATMs, branches, and kiosks, along with the proper structures to ensure seamless integration with the bank's core banking solutions.

3.5 Improving Financial Inclusion in Nigeria

3.5.1 Securing digital payment technology.

The Nigerian government must make sure that digital payment methods are more secure, accessible, and transparent. By accelerating payments and reducing the cost of sending and receiving payments, payment digitization through technology can increase efficiency. Additionally, it can increase payment security, reducing the likelihood of payment fraud. Payments made via digital channels as opposed to physical cash can improve financial transparency and lower corruption.

3.5.2 Greater empowerment of women

Women in Nigeria should have wide access to formal financial services as part of efforts to increase financial inclusion. Without improving the status of women, who are frequently marginalized in society, inclusive growth is meaningless. Women make up half of the

population, so excluding them makes the financial development method and results unfair, unacceptable, and incomplete.

3.5.3 Regulations aimed at enforcing low-cost retail accounts in Tier 1 banks.

There must be clear laws that support an inclusive ecosystem if financial inclusion rates are to increase in Nigeria. The enforcement of Tier 1 Banks, which are banks with a low cost-of-income ratio and more branches and agent operations than other banks, to use their resources to develop low-cost retail accounts and focus on the poor.

This will take advantage of the level of brand recognition and trust already present between banks and customers, and it can later be expanded to Tier 2 banks to reach more people.

To accomplish this, the CBN must establish a policy for this initiative, as well as control and honor banks that meet and even exceed their goals. As a result of this regulation, banks would work together with small-scale retailers to achieve their goals, thereby fostering an environment that is supportive of these retailers.

3.5.4 Financial Literacy Training

A bank account is not a necessity for about 1.7 billion people, according to the World Bank (2018). Women and rural poor people make up a sizable portion of the unbanked population. People who are denied access to financial institutions frequently experience discrimination and belong to marginalized or inclined populations.

To address financial constraints, particularly among small business operators, financial literacy and inclusion have been prioritized with the help of many governments in developed and emerging economies, according to Bongini and Zia (2018) and Odetayo, Sajuyigbe, and Adeyemi (2020). According to some, financial inclusion and financial literacy play a crucial

role in the success of small businesses worldwide. (Iriboe, Akinyede & Iriobe, 2017). Small businesses' capacity to expand and experience long-term success is impacted by both a lack of financial literacy and the exclusion of entrepreneurs. According to Karadag (2015), poor financial management, lack of knowledge, exclusion, and other factors are the main reasons why SMEs fail. According to Njoroge (2013), financial literacy and inclusion are essential for successful personal finance management and the expansion of small businesses, and they have drawn increasing attention in both developed and developing countries due to their impact on economic decision-making. (Njoroge, 2013).

A person or business owner who wishes to manage their finances successfully must possess a certain set of skills and knowledge, known as financial literacy. Financial literacy is the ability to be familiar with and understand financial market products, particularly rewards, and risks, to make educated decisions, according to Singh & Kumar (2017). It refers to the ability to make informed decisions and act effectively when it comes to the use and management of money. Businesses operating in developing economies are severely constrained by a lack of financial resources, but financial service providers believe that these entrepreneurs lack adequate knowledge of financial services. (ACCA 2014; OECD 2006). To be financially included, financial literacy has been promoted as a requirement. Financial inclusion, according to Agarwal (2016), is heavily influenced by financial literacy because, regardless of one's ability to access financial services, doing so would be impossible if one didn't know how to handle money.

The institutionalization of national financial inclusion strategies has an effect on the economy, according to the World Bank's 2016 report on financial inclusion. The World Bank's Universal Financial Access2020 initiative has over the years prioritized making sure that everyone has access to a transaction account. (World Bank 2016). This ensures that more

people have access to financial services and raises the number of people who have bank accounts in an economy. Financial inclusion, according to Atkinson and Messy (2013), is the process by which all institutional players and the government guarantee small business owners' (entrepreneurs') fair and transparent access to the appropriate financial products and services. Their study also showed a connection between financial literacy and financial inclusion, which is critical for granting people access to financial products.

About 1.7 billion people, according to the World Bank's 2018 estimate, do not have a bank account. Women and rural poor people make up a large portion of the unbanked population, and people from marginalized or inclined groups frequently experience discrimination and are excluded from financial institutions. According to Bongini and Zia (2018) and Odetayo, Sajuyigbe, and Adeyemi (2020), financial inclusion and literacy have been prioritized by several governments in and emerging economies in stores as a financial constraint, especially among small business owners. Financial inclusion and financial literacy, according to some, play a crucial role in the success of small businesses worldwide. (Iriboe, Akinyede & Iriobe, 2017). The lack of financial literacy and the exclusion of entrepreneurs hinder the expansion and sustainability of small businesses. According to Karadag (2015), the main reasons why SMEs fail include exclusion, poor financial management, and a lack of knowledge. Financial literacy and inclusion, according to Njoroge (2013), are essential for successful personal finance management and the growth of small and medium-sized businesses, and they have drawn increasing attention in both developed and developing countries due to their significance in the process of economic decision-making. (Njoroge, 2013).

One is unable to overestimate the value of banks in fostering a culture of saving and promoting financial literacy. Since their inception, commercial banks have actively encouraged saving by providing a variety of deposit products and mechanisms with different

combinations of liquidity and interest rates that are suited to the requirements and preferences of various depositors. It has also been helpful to have extra security against theft and damage, as well as, in some cases, robust insurance coverage. As a store of value, bank deposits have a few advantages over tangible assets. Deposits are easier to hold, safer, and more liquid than tangible assets because they can be quickly converted to cash. Additionally, they are often less dangerous and highly divisible.

Despite these difficulties, there are still many people without access to banking, a low level of financial literacy, and a low savings rate as a result. According to the majority of experts, financial institutions must view finance as a utility, a service that is constantly accessible to support people's moment-by-moment needs, rather than isolated tools geared toward macro decisions, if they are to truly help consumers achieve financial inclusion.

3.6   Economic Impacts of Financial Inclusion in Nigeria

The ability of financial inclusion to hasten the efficient distribution of productive resources, thereby lowering the cost of capital, makes it a very important tool that the government uses to promote economic growth. This method, also known as an inclusive financing system, significantly enhances day-to-day financial management operations while also slowing the expansion of informal credit sources (like payday lenders), which are frequently found to be exploitative or manipulative. (Onaolapo, 2015). Due to its apparent significance as a driver of economic growth, the concept of financial inclusion has recently gained attention. Financial inclusion is the practice of making financial services available to as many people as possible from a variety of sources, primarily the private sector. It refers to a financial system specifically designed to benefit as many as five people in a nation. The provision of financial services at no or low cost to some economically underprivileged and economically disadvantaged segments of the population is another definition of financial inclusion.

(Harley, Adegok,e and Adegbola, 2017). Recently, many nations, especially those with developing economies, have made financial inclusion a top development policy priority. (Sharma, 2015). It is generally acknowledged that millions of people around the world lack access to formal financial services, which could result in a loss of deposits or savings, a reduction in the amount of money available for investment, and a corresponding decline in the ability of the global economy to produce wealth. In general, low-middle-income earners make up the majority of the population and therefore control a substantial percentage of the country's unused funds; nevertheless, these funds are held in small quantities in the hands of each of the several million members of this group; therefore, harnessing and accruing these resources offers a significant base of affordable long-term investable capital. Having access to financial services lowers the risks that the poor face as a result of economic shocks and enables them to safely save money outside the home. (Wahiba and Weriemmi, 2014). Because it has significant economic and social ramifications, ensuring that everyone has access to financial services is progressively becoming a concern for all policymakers. Financial inclusion is now recognized as being crucial for achieving inclusive growth in a nation and has become an explicit strategy for accelerating economic growth. (Karlan, Ratan, and Zinman, 2014). This realization has recently played a significant role in the adoption of policies and measures intended to advance global financial inclusion as a means of fostering economic prosperity. (Lusardi and Mitchell, 2014). The costs of financial exclusion are felt by both society and the excluded. Due to a lack of financial inclusion, the unbanked are compelled to participate in non-traditional banking sectors that charge high-interest rates and have a finite amount of funding. Any dispute between lenders and borrowers cannot be resolved legally because the non-formal banking structure is not protected by any legal framework (Dupas, Karlan, and Ubfal, 2016). The availability of more savings, the effectiveness of financial intermediation, and access to new business opportunities are all

social advantages of financial inclusion. In the past, the primary driver of the adoption of universal banks in many European nations with state support was apprehension that market-based competitive banking would not liberate the social benefit of comprehensive financial inclusion but would instead result in social costs from rural-urban migration. (Hariharan and Marktanner, 2013). Greater economic diversification in rural areas has been facilitated by state-backed universal banking than by more competitive banking environments. In countries with wide income gaps, there has been a lack of financial inclusion, which has resulted in the poor being excluded as a result of unequal economic benefits and monopolized markets.

Economic expansion and financial inclusion go hand in hand because they both significantly reduce poverty. The development of the financial sector, a factor in economic growth, indirectly reduces poverty and inequality while improving the welfare of the poor with appropriate financial services. Because it can guarantee an improvement in the delivery of efficient services, the creation of saving opportunities, and the acceleration of capital creation among the poor, an inclusive financial system is thus a genuine means for economic development and growth. (Dupas, Ka, plan, and Ubfal, 2016). The effects of financial inclusion are felt not just in terms of money and funding but also in terms of social economic development, both at the local and national levels, which is now being addressed by local and national governments. The rationale and empirical evidence are in favor of it. By providing financial services to underserved populations, financial inclusion can contribute to the establishment of a country's sustainable development. (Tamilarasu, 2014). A person's family, neighbors, and environment are all impacted by financial inclusion in addition to the individual. (Shyni, and Mavoothu, 2014). One important step toward inclusive growth is financial inclusion, which will boost the economies of disadvantaged societies. Economic growth, money mobilization, and market expansion are the general goals of financial inclusion. Social and political goals, such as eradicating poverty, sustainable development,

broadening inclusion, and government program effectiveness, are the specific goals of financial inclusion. Additionally, it can assist in demonstrating employment opportunities, credit opportunities or uncomplicated loans, an increase in income, money mobilization, micro insurance, micro pension funds, the reduction of poverty, the establishment of assets, and personal financial management. Society has access to technology that tends to increase consumption, boost productivity and income, boost investment, and deal with unforeseen events. (Fadun, 2014). In conclusion, both local and global societies are greatly impacted by financial inclusion. Future economic development may be hampered by the limited use of financial inclusion (Fungáová et al., 2014).

3.7 Theoretical Framework

3.7.1 The Theory of Planned Behaviour

Several scholars acknowledge that it is challenging to explain human behavior (Ajzen, 2018; Sherman and Fazio, 1983). The quest to imagine and explicate human behavior has benefited from the use of concepts designating behavioral dispositions, such as personality traits and social attitudes (Ajzen, 2018). According to several researchers, personality characteristics and attitudes only indirectly affect explicit behaviors by influencing some of the variables that are connected to the behavior in issue, in this case, account ownership (see Ajzen and Fishbein, 1980). Many ideas attempt to anticipate how people will behave. Azjen's theory of planned behavior (TPB), which he developed, stands out among them (2020). Predicting a wide variety of human behavior requires the Theory of Planned Behavior (see Saidin & Isa, 2013; Madden et.al. 2012). It is crucial to expect that the TPB will allow us to investigate the primary causes of FI in Nigeria.

By including perceived behavioral control as a predictor of one's intention to engage in an

activity, TPB is an expansion of the theory of reasoned action. Between the two theories, there is a difference in perceived behavioral control. The underlying premise of the two theories is that people are rational beings who make decisions based on the facts at them. The theory of planned behavior is depicted in Figure 3.2 below.
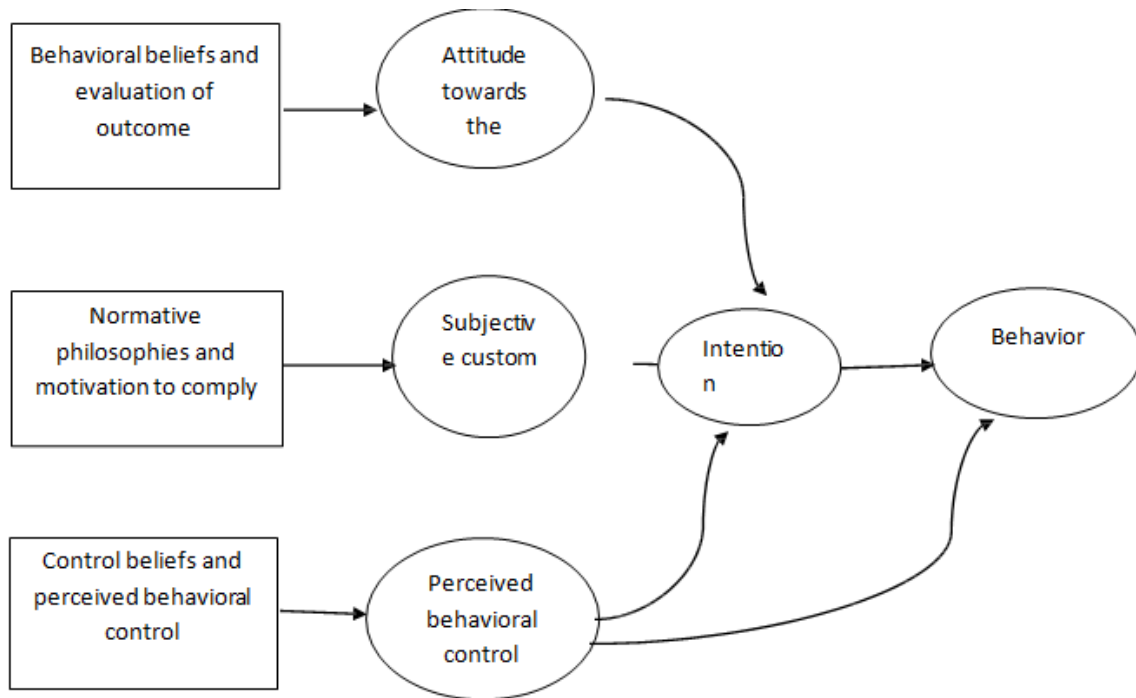
Figure 1: Theory of Planned Behavior

Source: Adopted from Ajzen (2020) and Mathieson (2020)

The Theory of Planned Behavior investigates a person's intent to engage in a behavior (Ajzen, 2020). Three elements that highlight a person's intent to engage in behavior have been established by Ajzen (2020). The person's attitude and perception of such behavior are the first of these variables (Ajzen, 2020). The ability, gender, and age of an individual are all personal aspects that influence their attitude about the conduct (Giluk & Postlethwaite, 2015). The subjective norm is the second factor that influences behavioral intentions, according to the TPB (Ajzen, 2020). (Opinions of others about behavior). As a result, a

person's behavior is influenced by the thoughts and opinions of other individuals. The third-factor influencing behavioral intention, according to TPB, is perceived behavior control. The concept of perceived behavioral control is concerned with how one perceives the difficulty or simplicity of carrying out or performing a behavior. It rises when the person feels surer that he has the skills necessary to carry out the behavior, and it falls when the person believes that carrying out the behavior is more difficult (Ajzen, 2020).

The use of TPB has allowed for behavior and intention prediction. (Madden et al., 2012; Young et al., 2013; Mathieson, 2020). Following thorough research, the researcher has not yet come across a study that employed TPB to describe the factors that predict FI in Nigeria. Thus, the choice to use the theory in this research.

3.8 Empirical part

3.8.1 Factors that predict Financial Inclusion

Many studies have examined how the levels of the nation, the home, and the individual determine financial inclusion (Akpandjar et.al, 2013; Chikalipah, 2017; Wale & Makina, 2017). In 2013, Akpandjar et al. investigated the factors influencing the adoption of financial products in Nigeria's urban and rural locations. According to the Tobit study's findings, factors like a household's size, age, income, marital status, occupation, sex, and remittances have a significant impact on that household's decision to participate in the financial market. The findings demonstrated a clear and significant relationship between the head of the family, the size of the household, and the demand for financial services. They found that male-headed households are anticipated to require more financial services than female-headed households. The results showed that financial service demands in Nigeria are influenced by financial literacy. The results also revealed that people who live in rural areas

are more likely than people who live in urban areas to receive financial aid from sources other than traditional institutions.

Additionally, Chikalipah (2017) investigated the elements that affect FI in Sub-Saharan Africa. World Bank data from 20 Sub-Saharan African nations were used in the study. The results showed that illiteracy has a significant impact on or challenges financial inclusion in SSA. The study used the total number of adults who had a formal bank account as a stand-in for FI. The study also considered factors including population density, GDP growth, infrastructure index, and literacy rates. The study found that literacy, GDP expansion, and GNI per capita can all have a favorable impact on FI in SSA. This was discovered using the Ordinary Least Square (OLS) approach.

The impact of variables like income, sex, age, and education on the chance of possessing a bank account in 18 SSA nations was also studied by Wale and Makina (2017). During the investigation, the probit model was used. Two dependent variables were employed in the study, including ownership (where one indicates that a person possesses a bank account and zero otherwise) and use of accounts to save money (which was also a dummy with one indicating that within the past year, a person saved money in an account and zero otherwise). Gender, age, education, and employment status were considered independent variables in the study. Males were more likely than females to hold accounts, according to a descriptive analysis of the data. Also, they showed that the mid-aged class accounted for most of the account ownership and account usage for savings. The results, which were significant at 5% using econometric analysis, showed that males are more likely than females to own more bank accounts. The likelihood of owning a bank account was positively and strongly correlated with age, and individuals with only an elementary education are less likely to do so. The findings also showed that, after a certain age, there is

a decreased likelihood of owning an account, as shown by the coefficient of age square.

Allen et al. (2016) stated using data from the World Bank Global Findex (2012) that the chance of having a bank account is influenced by income, education, age, marital status, and employment. They discovered that those with higher levels of education, wealth, and employment have a higher possibility of possessing a bank account. Moreover, Funcagova and Weill (2015) found that older, wealthier, and more educated men have a higher chance of being financially included in China.

The drivers of FI in Africa were also examined by Zins and Weill (2016) utilizing data from 37 African nations. The study's conclusions showed that sex, age, education, and income can all have an enormous impact on FI in Africa. Males are more likely than girls to have formal accounts, formal savings, and formal credit. Additionally, having a bank account, money, and credit are all positively impacted by age. To the best of the researcher's knowledge, no study in Nigeria has yet considered people's levels of handicap, their level of religious affiliation, and the number of hours they labor each week after a thorough assessment of the literature. As a result, the researcher decided to consider these characteristics as a factor affecting financial inclusion in Nigeria. So, the researcher will aim to close a knowledge gap by expanding on past research by Akpandjar, and Abor, 2013 to include disability, religion, and work hours.

3.8.2 Reasons for not owning a bank account.

Many studies have also looked at why, despite efforts to attract them, people still do not have bank accounts (see Financial Inclusion Insight Africa, 2015; Dermiguc-kunt et.al, 2014). Financial Inclusion Insight (FII) Africa (2015), for instance, looked at the demand for financial services, identified difficulties in evaluating financial services, and quantified uptake and usage. 3,002 Nigerians who were 15 years of age or older participated in the poll

in that country. They discovered that 48% of people had financial accounts, 20% had signed up for mobile money, and 34% had bank accounts. 7% of the 34% of account holders who had bank accounts were inactive. The study also showed that exactly 43% of the participants (n =2059) who did not have a bank account stated that they did not have enough money to save, 27% that they used an alternative method of saving, 15% that bank fees were too high, 10% that they did not know how to open a bank account, and 5% that they stated other reasons.

Further analysis of the study's findings focused on people's refusal to use bank loans. Precisely 47% of respondents said they could obtain a loan from sources other than a bank; 15% said the bank charged a higher interest rate; 12% preferred borrowing from family members; 19% said the required sum was insufficient to urge them to visit the bank's offices; and 7% said higher bank fees. Similarly, Dermiguc-kunt et al. (2014) started a study to determine why people are uninterested in having a bank account. According to the poll, 25% of respondents said that their relatives' bank accounts were a factor in their choice not to open one, while 30% of respondents said that they did not have a bank account due to a lack of funds. Also, 20% said that holding an account is expensive, 20% said that the distance to the bank's office is a big deterrent to opening an account, and 2% and 3% said that religion and a lack of faith in banks are the main deterrents. The study also discovered that several other variables, including region, gender, age, and education, had a significant impact on financial inclusion. For instance, the survey found that just 36% of women and 46% of men in emerging nations have bank accounts, respectively. Precisely 22% and 27% of men and women in SSA also had bank accounts, respectively. In addition, the survey discovered that those with a university education are more likely to hold bank accounts than those without any formal education. According to the analysis above, it is evident that people lack bank accounts due to a lack of money or finances, the availability of other financial

options, and excessive bank fees.

3.9 Conceptual Framework

The conceptual approach for this study was adapted from Wale and Makina (2013) and Akpandjar et al. (2013). The elements that affect FI in Nigeria are succinctly described in this framework. Ownership of a bank account was utilized as a stand-in for FI. The researcher makes the case, based on prior research, that elements including household characteristics, employment, and level of education might affect financial inclusion. The conceptual framework for the investigation is shown in Figure 3.4.
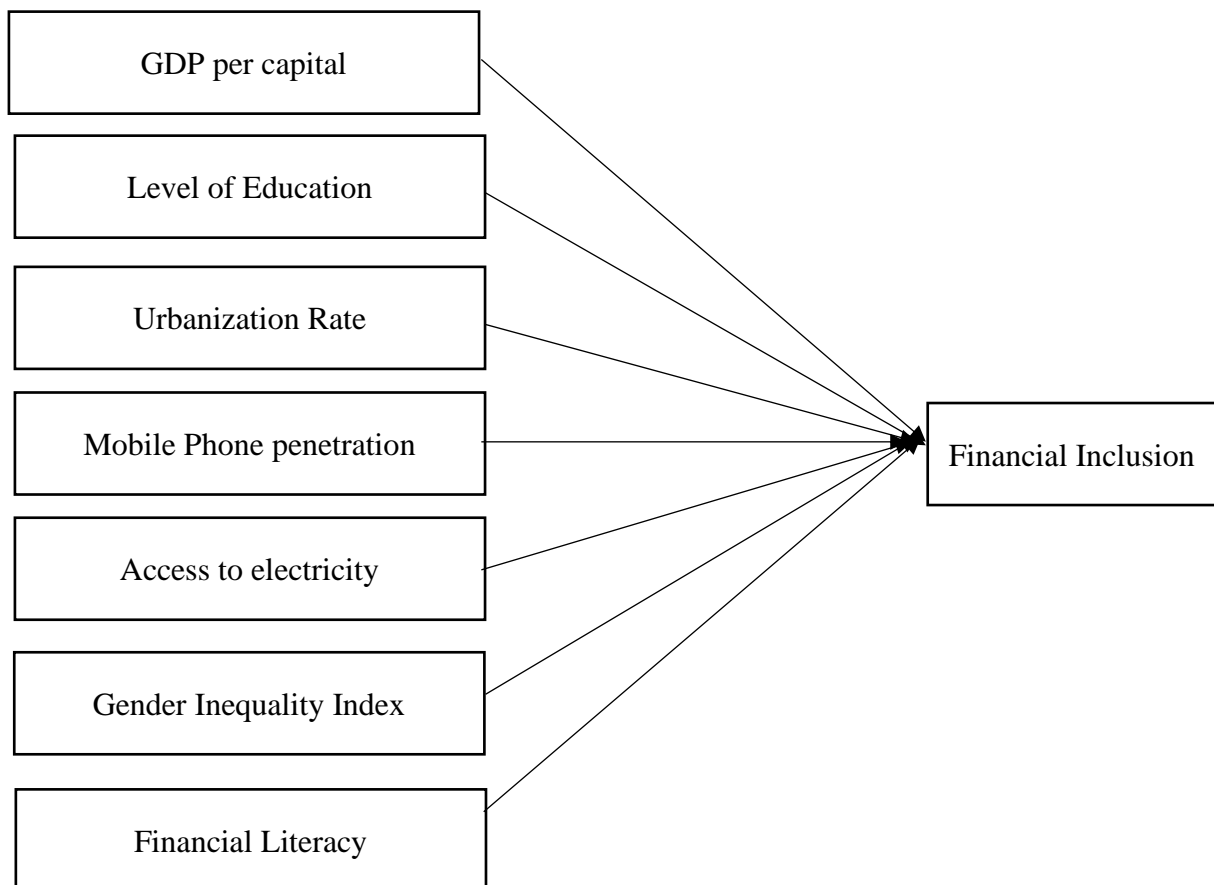

Figure 2: Conceptual Framework for determinants of financial inclusion

Source: Field Survey (2023)

4.0 Practical Part

Using data from the world developmindicatorsator, this paper investigates the elements that contribute to financial inclusion in Nigeria. The results are provided in three parts in this section. The first section was on the descriptive statistics of the variables underpinning the study. The mean, standeviationaiton, minimum value and the maximum value. The second section was on the analysis of the variables underpinning the research. Then the final section examines the diagnostics of the analysis.

4.1 Descripitive Statistics

The descriptive statistics of the variables have been presented in Table 2.

Table 3: Descriptive Statistics

	Mean	Median	Maximum	Minimum	Std. Dev.	Skewness	Kurtosis	Jarque-Bera	Probability	Observations
FI	0.114	0.0011	3.5874	-1.7251	0.8989	2.3700	12.0301	95.342	0.000	22
GDP	17.068	16.000	25.000	11.500	4.4702	0.4514	1.9721	1.716	0.424	22
LevEdu	16.005	12.026	41.510	7.144	9.493	1.737	5.070	14.999	0.000	22
UrR	2.506	1.560	6.150	0.683	1.901	0.736	2.000	2.902	0.234	22
MobPhnPen	4.924	5.262	9.467	0.956	2.634	0.089	1.882	1.174	0.556	22
AccElect	59.545	62.500	70.000	50.000	9.247	-0.003	1.161	3.099	0.212	22
GenIneq	24.023	24.295	25.075	22.329	0.933	-0.656	1.977	2.539	0.281	22
FinLite	8.166	9.001	18.257	0.432	4.601	0.157	0.431	2.034	0.301	22

Source: Field Survey (2022)

The descriptive statistics of the variables involved in the investigation were computed in the study. Table 2 shows that the variables have positive average values. (means). Table 2 further shows that the mean value for FI was 0.114. The maximum FI was 3.588 with a minimum

value of -1.725. GDP recorded an average of 17.068. GDP recorded a minimum value of 11.500. Maximum value for GDP 25.00. Level of Education recorded an average rate of 16.005 percent. The minimum value for the level of education was 7.144 with a corresponding maximum value of 41.510. Urban rate recorded an average of 2.506. It recorded a maximum value of 6.150 with a corresponding minimum value of 0.683. Mobile phone penetration recorded an average of 4.924 with a corresponding minimum value of 0.956 with a corresponding maximum value of 9.467. Access to electricity recorded an average of 59.545 with corresponding standard deviation of 9.247. The variable recorded a maximum value of access to electricity 70 with a corresponding minimum value of 50.00. Gender inequality index recorded an average of 24.023 with a corresponding standard deviation of 0.933. The maximum value of GDP was 25.075 with a corresponding minimum value of 22.329. Finally, financial literacy had an average of 8.166 with corresponding standard devaition of 4.601. The maximum value was 18.257 with a corresponding minimum value of 0.432.

4.2 Unit Root Test

Tables 3 and 4 show the unit root test results for the variables in the model. Table 3 shows the ADF unit root test findings, whereas Table 4 shows the PP unit root test results. Although the boundaries test (ARDL) technique to cointegration does not need the variables to be pretested for unit roots, it is still necessary to run this test to ensure that the variables are not integrated of an order greater than one. The goal is to determine the presence or absence of I(2) variables in order to separate the findings from misleading regression. To guarantee that some of the variables are not integrated at higher order, unit root tests must be used in addition to the estimated procedure.

As a result, before applying the dynamic ordinal least square to cointegration, unit root tests were performed to explore the data's stationarity qualities. As a consequence, the ADF and PP tests were run on all variables in levels and first difference to explicitly establish their order of integration. To ensure that the variables were integrated in the correct sequence, the test was run with intercept and time trend in the model.

Tables 3 and 4 show the results of the ADF and PP tests for unit root with intercept and trend in the model for all variables. The null hypothesis states that the series is not stationary or has a unit root. The null hypothesis is rejected based on the MacKinnon (1996) critical values as well as the probability values.

The ADF and PP test results show that the variables in Equation (1) are either integrated of order 0 (I(0)) or 1 (I(1)), regardless of whether the test is done with a constant alone, a constant and a trend, or a trend but no constant. As a result, the variables in Equation (1) are a combination of I(0) and I(1) variables. There was no integration of I(2). As a result of the unit root results, the DOLs approach for analyzing the effect becomes applicable. A DOLs model forecasts the variable of interest by employing a linear combination of the variable's historical values.

4.3 Determinants of Financial Inclusion

The first objective of the study was to analyse the determinants of financial inclusion. Gross domestic product, level of education, urbanisation rate, mobile phone penertration, access to electricity, gender inequality index and financial lieteracy was regressed on financial inclusion. The result is presented on the table below.

Table 4: Determinants of financial inclusions

Variable	Coefficient	Std. Error	t-Statistic	Prob.
GPD	0.218170	0.014634	14.91149	0.0000
LevEdu	0.533339	0.054813	9.730155	0.0000
UrR	0.016166	0.012211	5.050213	0.0000
MobPhnPen	0.088652	0.027832	3.185254	0.0001
AccElect	-0.332243	0.270619	-1.227715	0.2266
GenIneq	0.046639	0.008198	5.688917	0.0000
FinLite	0.088122	0.021332	4.130977	0.0000
C	1.105213	0.795790	1.388824	0.1724

R-squared	0.623280	Mean dependent var		0.910583
Adjusted R-squared	0.568150	S.D. dependent var		0.381696
S.E. of regression	0.250832	Akaike info criterion		0.205974
Sum squared resid	2.579592	Schwarz criterion		0.478858
Log-likelihood	2.056621	Hannan-Quinn criter.		0.309097
F-statistic	11.30567	Durbin-Watson stat		1.799228
Prob(F-statistic)	0.000000			

Source: Field Survey (2022)

There was a positive relationship between GDP [B=0.218170; t(22) = 14.91149; p<0.05]. In the long run, a unit increase in GDP would lead to a 0.218170 increase in financial inclusion at a 1 percent statistically significant level.

The results show a positive relationship between the level of education on financial inclusion [B= 0.53339; t(22) = 9.730155; p<0.05]. A unit increase in level of education would lead to a 0.5339 increase in financial inclusion at 1 percent statistically significant level.

Similarly, the results show a positive and significant relationship between urbanisation rate and financial inclusion [B= 0.061669; t(22) = 5.050213; p<0.05]. A unit increase in urbanisation rate will lead a 0.061669 increase in the financial inclusion.

There was a positive and significant effect of Mobile phone penetration on financial inclusion [B= 0.088652; t(22) = 3.185254; p<0.05]. A unit increase in mobile phone penetration would lead to a 0.088652 increase in financial inclusion.

There was no significant effect between access to electricity and financial inclusion [B= 0.332243; t(22) = 1.227715; p>0.05]. The effect between access electricity and financial inclusion was insignificant.

Also, gender inequality recorded a positive and significant effect on financial inclusion [B= 0.046639; t(22) = 5.688917; p<0.05]. A unit increase in gender inequality would lead to a 0.046639 increase in financial inclusion.

Finally, there was a positive and significant relationship between financial literacy and financial inclusion [B= 0.088122; t(22) = 4.130977; p<0.05]. A unit increase in financial literacy would lead to a 0.088122 increment in financial inclusions.

4.4 Stability Tests

According to Pesaran and Pesaran (1997), the test for parameter stability using cumulative sum of recursive residuals (CUSUM) and cumulative sum of squares of recursive residuals (CUSUMSQ) plots should be performed after the model is estimated. This is done to avoid any bias in the estimated model's findings caused by unstable parameters. Furthermore, the stability test is applicable with time series data, especially when it is unclear when structural changes occurred. The CUSUM and CUSUMSQ data are presented against a 5 percent significance level critical bound. According to Bahmani-Oskooee and Nasir (2004), the null hypothesis that all coefficients are stable cannot be rejected if the plot of these statistics remains inside the critical bound of the 5% significance level.

Figure 3 shows the CUSUM plot for the calculated DOLS model. The plot indicates that the coefficients are not unstable because the plots of all coefficients fall inside the crucial boundaries at the 5% significance level. As a result, all of the calculated model's coefficients remain steady during the course of the research. Figure 3 also shows the CUSUMSQ map for the estimated DOLs model. The figure also indicates that the coefficients are not unstable, as the plots of all coefficients fall inside the crucial boundaries at the 5% significance level. As a result, all of the calculated model's coefficients remain steady during the course of the research.

4.5 Diagnostic test for long run model

The results of the diagnostic test for the estimated model are shown in Table 6. According to the table, the estimated model passes the Langrangean multiplier test of residual serial correlation, functional form of specification, normality based on skewness and kurtosis of the residuals, and heteroscedasticity based on regression of squared residuals on fitted values.

Table 5: Diagnostic Test for Long Run Model

Test	Results	Remarks
Normality (Jarque-Bera, 0.87713)	Prob. 0.9872	The model is normally distributed
Functional Form	F(7,22)=2.5667 [0.225645]	Model stable
Serial Correlations	F(2,23) 0.062424 Sig (0.87652)	There is no Serial Correlation
Heteroskedasticity	F(20,25) 0.57891 Sig (0.76613)	Homoskedasticity

Source: Field Survey (2023)
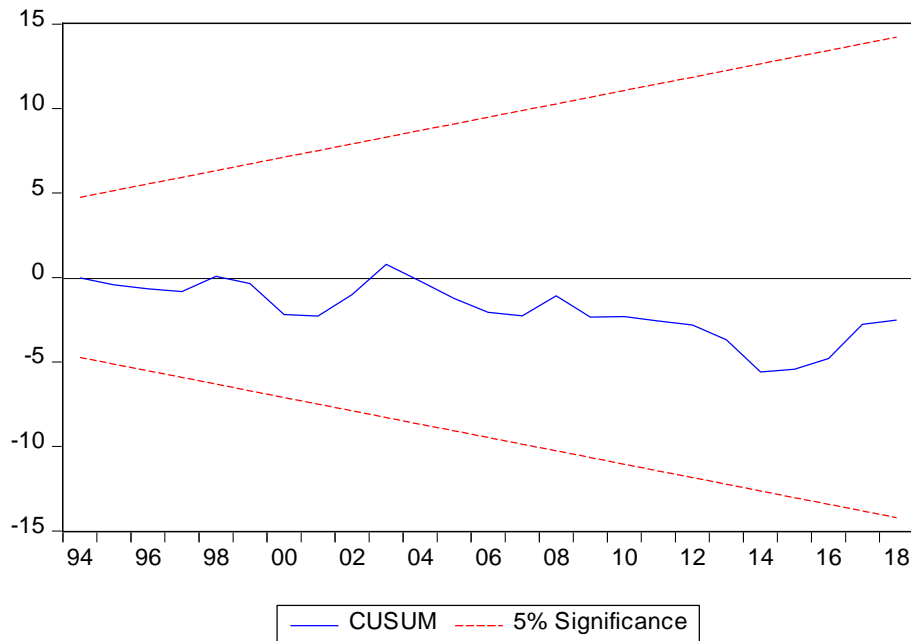
Figure 3: CUSUM stability

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Figure 4: CUSUM Stability

Source: Field Survey (2022)

From the diagrams, the blue line in middle of the two lines indicates how fit the model is. The model was there fixed.

4.6 Why are Nigerians reluctant to possess a bank account in Nigeria?

In the second objective of the study, the study analyzed the reasons why Nigerians are reluctant to possess a bank accounts. The ordinary least square was used to analyze this objective. Interest rate, minimum balance, individual factors, and easy access was regressed on savings accounts opened. The result is presented on the Table below.

Table 6: Coefficients

Determinants of Tax Compliance	Coefficient	Standard Error	t-statistics	Sig
Intercept	1.627	.144	11.263	0.000
Interest Rate	.087	.085	1.022	0.078
Minimum Balance	.102	.046	2.228	0.001
Individual Factors	.188	.049	3.870	0.000
Easy Access	-.239	.070	-3.431	0.000
R-Squared	.527			
Adjusted R Squared	.522			
Standard Error	.59303			
Durbin Watson	1.545			

Field Survey (2023)

From Table 5 there was insignificant relationship between interest rate and accounts opening [B= 0.087; t(22) = 1.022; p>0.05]. A unit increase in interest rate would not lead to any increment in accounts opening.

There was a significant relationship between minimum balance and customers' reluctancy to accounts opening [B= 0.102; t(22) = 2.228; p<0.05]. A unit increase in minimum balance of banks would make customers reluctant to opening an account.

There was a significant relationship between individual factors and reluctancy to possession to bank accounts [B= 0.188; t(22) = 3.870; p<0.05]. A unit increase in individual factor would lead to a 0.188 increment in reluctancy to possession to bank accounts.

There was a significant negative relationship between easy access and reluctancy to possession to bank accounts [B= - 0.239; t(22) = - 3.431; p<0.05]. A unit improvement in

ease of access would result in a 0.239 decrease in reluctance to own bank accounts.

Why do most Nigerians seek credit from banks in Nigeria?

The third objective of the study was to analyze the factors that causes Nigerians to seek credit from banks in Nigeria. To achieve this objective, three variables (interest rate, poverty, and level of education) were regressed on household credits. The result is presented on the table below.

Table 7: Coefficients

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
Interest rate	-0.472116	0.056457	-8.362397	0.0000
Poverty Rate	2.007452	0.402402	4.988680	0.0001
Level of Education	0.128898	0.027617	4.667314	0.0001
C	-0.003548	0.049299	-0.071965	0.9433
R-squared	0.810484	Mean dependent var		0.011453
Adjusted R-squared	0.602016	S.D. dependent var		0.329901
S.E. of regression	0.208121	Akaike info criterion		0.002909
Sum squared resid	0.866290	Schwarz criterion		0.944946
Log likelihood	22.93746	Hannan-Quinn criter.		0.350303
F-statistic	3.887808	Durbin-Watson stat		1.911087
Prob(F-statistic)	0.001696			

*Note: p-values and any subsequent tests do not account for model selection.

From the table, there was a negative and significant effect between interest rate and credit acquisition [B= -0.472116; t(22) = - 8.362397; p < 0.05]. That is, a unit increase in interest rate would lead a 0.472116 decrease in credit acquisition. Individuals fail to acquire credit when the interest rate increases.

Also, there was a positive and significant effect between poverty rate and credit acquisition [B= 2.007452; t(22) = 4.988680; p<0.05]. This indicates that, a unit increase in poverty would lead to a 2.007452 increment in credit acquisition. Poor individuals usually acquire credit from financial institutions in order to support their household. This explains why as poverty increases, credit advances also increase.

Finally, level of education had a positive and significant effect on credit advancement [B= 0.128898; t(22) = 4.667314; p<0.05]. A unit increase on level education would lead to a 0.1289 increase in credit advancement.

Reasons why Nigerians are declined credit from financial institutions

The fourth objective of the study was to analyze the reasons why Nigerians decline. Credit from financial credit. In order to achieve this, bank performing loans, inflation, and interest rate of treasury bills were regressed on Domestic credit provided by financial sector. The result is presented on the table below.

Table 8: Coefficients

Model	Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.	Collinearity Statistics Tolerance	VIF
1 (Constant)	-.036	.022		-1.634	.105		
Bank performing loans	3.221	0.497	0.029	6.481	0.00	.993	1.007
Inflation	2.031	0.616	0.270	3.298	0.01	.421	2.376
Interest Rate of Treasury bill	0.446	0.167	0.350	2.671	0.00	.284	3.522

The study analyzed the reasons why Nigerians are declined credit from financial institutions. One of the key factors was non-performing loans. The study found that there was a positive and significant relationship between bank performing loans and decline in credit [B= 3.221;

t(22) = 6.481; p<0.05]. A unit increase in non-performing loans would lead to a 3.221 increase in declined credit from financial institution.

Also, there was a positive and significant relationship between inflation and a decline credit from financial institution [B= 2.031; t(22) = 3.298; p < 0.05]. A unit increase in inflation would lead to a 2.031 increase in credit from financial institutions.

Interest rate of treasury bill had a positive and significant effect on decline credit from financial institutions [B= 0.446; t(22) = 2.671; p < 0.05]. A unit increase in interest rate of treasury would lead to a 0.446 increment in decline of credit from financial institutions.

5.   Results and Discussion

5.1 Factors influencing Financial Inclusion in Nigeria

The findings suggest that as GDP grows, so does financial inclusion, and that GDP growth can raise the level of financial inclusion. For example, boosting one percent of GDP can result in a more than twofold rise in the financial inclusion index. Our results is consistent with similar studies which show a negative relationship between inflation and stock returns (Arhenful, Ntiamoah and Kwaning, 2022; Malmen and Persson, 2022). However, Denix (2020) found a contradictory result by recording a positive effect of stock inflation on stock returns.

The results are in line with several documented papers on the effect of education on financial inclusions (Ayub & Masih, 2013; Alam & Uddin, 2009). Their findings posit that, as education increases, financial inclusions increases in value. As individuals are educated, they understand the need to be part of the financial system. Also, individuals would be able to cope with the advanatges and the disadvanges of the financial inclusison. Education therefore has a positive and significant effect on financial inclusions.

Individuals and businesses with access to useful and cheap financial goods and services such as transactions, payments, savings, credit, and insurance that fit their requirements and are supplied ethically and sustainably are considered to be financially included. Most of the of the financial institutions are located in the urban cities. In view of that, getting people to sign up for the financial system is very effective and easy. This indicates that, as more individuals travel to the city, they are likely to get access to financial inclusion. The findings th, therefore,nfirm wtudies by Akbar et al. (2019) who found that urbanisation influences financial inclusion.

In Nigeria, most of the financial institutions have signed up to the mobile banking which gives the citizens access to the financial service. As long as mobile phones are used in the country, it is easy for them to be part of the financial system.

The effect between access electricity and financial inclusion was insignificant. That is, irrespective of the availability of electricity, financial inclusion would not be affected. Similar result was recorded by Malevergne, Pisarenko and Sornette (2006). They found that there was no effect between access to electricity and financial inclusion in the long run.

Because a smaller gender gap in credit access can enhance financial stability, the gender gap in credit access can also have a substantial impact on financial stability. Indeed, studies demonstrate that women outperform men when it comes to debt repayment. Financial inclusion will not affect gender equality on its own. Women, on the other hand, stand a better chance of social and economic empowerment and financial inclusion if they have equitable access to the complete spectrum of needs-based financial services - savings, credit, insurance, and payments - and the associated financial education. Another important predictor of financial inclusion is gender. Men are reported to be more financially literate and so more financially involved than women in low-income nations where women have limited financial access. (Chowa & Despard, 2014; Klapper & Lusardi, 2020). This is not the case in certain nations, such as Vietnam, where there is no discernible difference between males and girls. (Morgan & Trinh, 2019). It should also be mentioned that in some countries, such as South Korea, gender, along with income level, has an influence on financial education levels. Low-income men are less financially informed and are ignorant of the availability of different interest rates in financial markets, resulting in higher interest rates. (Kim et al., 2018).

Financial literacy has a causal influence on financial inclusion, according to micro econometric research, which are frequently randomized controlled trials; educated consumers

not only comprehend the benefits of financial services better, but they also feel more secure in contacting providers. Financial inclusion is a worldwide policy aim that may be achieved by having financially literate individuals who can make informed financial decisions and improve people's well-being.

5.2 Reasons for owning a Bank account.

When considering creating another savings account, one must always evaluate the bank's interest rate. However, the results revealed that interest rates had no major influence. Most accounts do not pay interest; however, consumers frequently get interested in the accounts they establish. This explains why interest rates are not a faction r why Nigerians register accounts hesitantly. Furthermore, the interest rate ultimately affects how much extra one will make on savings. The interest rate varies depending on the bank and the kind of savings account used.

Most banks typically need a minimum deposit to create a savings account. While some banks may demand clients to maintain a monthly amount of up to 10,000 naira, many banks give 0% interest on low-balance savings accounts. Furthermore, this might be determined by the banking features and services desired. The customer's financial situation makes him or her hesitant to create an account.

People do not wish to store their money in a bank for cultural and religious reasons. They prefer the ancient method of storing money to the contemporary method of storing monies in the bank.

Another key problem that may have an impact on the savings account is the availability of funds. Is online banking available? In an emergency, is it feasible to withdraw money quickly? It is crucial to investigate these concerns since they might have an impact on how

one manages one's finances. Contact the bank to discover more about the services offered by their savings account.

5.3 Why Nigerians seek credit from banks

When interest rates increase, Nigerians would be demotivated to take loans from banks. This explains why anytime credit advances reduce when the interest rate increases. Currently, interest rate in Nigeria is 18 percent. Since customers would be paying lower interest rates when they borrow, it would encourage them to take credit from the bank. This result corresponds with Madeira (2019) who studied on the impact of interest rate ceilings on household credit access. They found that interest rate has a significant and positive effect on credit access.

Also, another factor that makes Nigerians seek for credit from banks is poverty. As the individual's poverty rates increases, there is a probability that customers would demand more money. This money can be accessed through banks by securing credits from them. This explains why poverty rate has a significant effect on credit from sales.

Finally, as the educational level of nigerians increase, they get to know more about the advantages related to credit. This explains why educated individuals are able to get better credit from banks. Educated nigerians would only take credit if they lack funds. This indicates that poverty rate has positive effect on access to credit.

5.4 Reasons why nigerians are declined credit from financial institutions

Based on how bank's loan is performing, credit can be forwarded to an individual or not. Non-performing loans are loans that customers have failed to pay. When banks realises that the loan in default are very huge, they might decline credit to customers. From the perspective of the individual, high non-performing loans depicts that the loan terms are not

favourable which avoids customers from servicing it. In view of this, Nigerians decline credit from financial institutions when their non-performing loans are high.

Inflation also causes financial institutions and individuals to decline loans. As the inflation rate increases, the effective interest rate is being affected based on the fisher's effect. As the increment in inflation causes an increment in interest rate, customers would not be ready to take care of the credits at that interest rate. Financial institutions on the other hand would also decline credit when the interest rate falls because of the changes in the interest rate.

6.0. Conclusion

Many countries have begun prioritizing stability through regulations in response to the ongoing global banking crisis, while simultaneously attempting to balance the demands of such policy with inclusive growth advancement, particularly in underdeveloped nations. Moreover, Nigeria has implemented numerous financial reforms to improve the access of small businesses and households with low incomes to financial services (Aryeteey and Kanbur, 2019). While financial inclusion (FI) is a crucial benefit for a nation's economic development, if policymakers are not careful in their efforts to advance FI, they risk increasing the rate of bank defaults, which will have an impact on the banking industry. Reaching out to financial services without the necessary persistence could seriously harm the nation's financial stability. Most of studies on financial inclusion was done outside the jurisdiction of Nigeria. The study analyzed the determinants of financial inclusion in Nigeria. To achieve the purpose of the study, four objectives were stated. The first objective was to examine the main drivers of Financial Inclusion in Nigeria; the second objective was to investigate why Nigerians are reluctant to possess a bank account in Nigeria; the third objective of the study was to assess why Nigerians seek credit from financial institutions; and the final objective was to investigate why Nigerians are declined credit from banks. The annual data for Gross Domestic Product per Capita, Level of education, urbanization rate, mobile phone penetration, access to electricity, gender inequality index and financial literacy. Were downloaded from WDI, IMF databank and GSE websites. Secondary data from 2001 to 2022 were employed. Unit root test was run to analyze the stationarity of the variables. It was concluded that, none of the variables were stationed at $I(2)$. In view of that, dynamic ordinary least square was appropriate for the study. GDP, level of education, urbanization rate, mobile phone penetration, and gender inequality had a significant effect on financial inclusion. Also, the study found that easy access, individual factors, and

minimum balance had a significant effect on individual reluctancy in opening account.

More financial institutions, such as microfinance, savings and loans firms, and rural banks, should be formed in Nigeria's urban and rural areas to engage more families in the financial sector. This will allow households to have access to funds to engage in productive endeavours, which will result in better household social welfare.

Account usage, insurance, ATM, E-banking and other financial services other than credit must be made easily available, convenient, and inexpensive to all individuals by all financial institutions since their affects considerably increase social welfare in Nigeria. To promote social welfare in Nigeria, the government must prioritize political stability, voice and accountability, rule of law, and regulatory quality as governance tools.

Proper governance advocacy organizations should step up their campaign for efficient country governance systems to enable the financial sector's efforts to provide financial services targeted at enhancing the social welfare level of households.

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8. List of pictures, tables, graphs, and abbreviations

List of pictures

List of tables

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List of abbreviations

FI – Financial Inclusion

SSA – Sub-Sahara Africa

WDI – World Development Indicators

OLS – Ordinary Least Square

DOLS – Dynamic Ordinary Least Squares

FSS – Financial System Strategy

NUBAN – Nigeria Uniform Bank Account Number

USSD – Unstructured Supplementary Service Data

Appendix

Table 1: Unit Root Test Results Table (ADF)

UNIT ROOT TEST RESULTS TABLE (ADF)

Null Hypothesis: the variable has a unit root

At Level

		GDP	LevEdu	UrR	MobPhnPen	AccElect	GenIneq	FinLite	FI
With Constant	t-Statistic	2.5766	-1.4545	-1.8092	-3.7003	-2.7343	-1.0119	-3.3357	-2.1323
	Prob.	*0.9999*	*0.5362*	*0.3660*	*0.0121*	*0.0859*	*0.7293*	*0.0267*	*0.0192*
		n0	n0	n0	**	*	n0	**	**
With Constant & Trend	t-Statistic	-1.2171	-1.2987	-1.0404	-1.8268	-2.6500	-2.5042	-3.2775	2.982
	Prob.	*0.8802*	*0.8598*	*0.9157*	*0.6514*	*0.2646*	*0.3227*	*0.0985*	*0.9999*
		n0	n0	n0	n0	n0	n0	*	n0
Without Constant & Trend	t-Statistic	5.7772	-0.5676	3.3778	-2.2789	-0.5718	0.8310	-3.4217	-1.2171
	Prob.	*1.0000*	*0.4592*	*0.9994*	*0.0251*	*0.4574*	*0.8833*	*0.0017*	*0.8802*
		n0	n0	n0	**	n0	n0	***	n0

At First Difference

		d(GDP)	d(LevEdu)	d(UrR)	d(MobPhnPen)	d(AccElect)	d(GenIneq)	d(FinLite)	D(FI)
With Constant	t-Statistic	-4.4377	-4.0907	-4.0673	-7.5228	-3.5342	-4.7787	-4.0381	-3.1812
	Prob.	*0.0047*	*0.0055*	*0.0058*	*0.0000*	*0.0200*	*0.0013*	*0.0069*	*0.0211*
		***	***	***	***	**	***	***	***
With Constant & Trend	t-Statistic	-5.1933	-4.2044	-4.2550	-7.9730	-3.6142	-4.6412	-3.8657	-3.1133
	Prob.	*0.0007*	*0.0178*	*0.0205*	*0.0000*	*0.0590*	*0.0075*	*0.0366*	*0.0067*
		***	**	**	***	*	***	**	**
Without Constant & Trend	t-Statistic	-5.4243	-4.1976	-2.8238	-7.3221	-3.7356	-4.6404	-4.1569	-3.0865
	Prob.	*0.0003*	*0.0002*	*0.0072*	*0.0000*	*0.0009*	*0.0001*	*0.0003*	*0.0001*
		***	***	***	***	***	***	***	***

Notes: n0

a: (*)Significant at the 10%; (**)Significant at the 5%; (***) Significant at the 1% and (no) Not Significant

Table 2: PP Unit Root

UNIT ROOT TEST RESULTS TABLE (PP)

Null Hypothesis: the variable has a unit root

At Level

		GDP	LevEdu	UrR	MobPhnPen	AccElect	GenIneq	FinLite	FI
With Constant	t-Statistic	2.1821	-1.5184	-2.0425	-3.9813	-2.9048	-0.8879	-8.9473	-0.4037
	Prob.	0.9998	0.5050	0.2679	0.0066	0.0616	0.7716	0.0000	0.4142
		n0	n0	n0	***	*	n0	***	n0
With Constant & Trend	t-Statistic	-1.2171	-1.3882	-0.9543	-4.3126	-2.8656	-2.5039	-8.2265	-0.2771
	Prob.	0.8802	0.8342	0.9294	0.0137	0.1920	0.3229	0.0000	0.7231
		n0	n0	n0	**	n0	n0	***	n0
Without Constant & Trend	t-Statistic	4.9906	-0.5886	3.3778	-2.2789	-0.3398	1.5527	-9.1135	-0.4775
	Prob.	1.0000	0.4502	0.9994	0.0251	0.5504	0.9657	0.0000	0.3411
		n0	n0	n0	**	n0	n0	***	n0

At First Difference

		d(GDP)	d(LevEdu)	d(UrR)	d(MobPhnPen)	d(AccElect)	d(GenIneq)	d(FinLite)	d(FI)
With Constant	t-Statistic	-4.4377	-4.0907	-4.0673	-7.7554	-4.8484	-5.3410	-20.3956	-4.2300
	Prob.	0.0047	0.0055	0.0058	0.0000	0.0011	0.0004	0.0000	0.0002
		***	***	***	***	***	***	***	***
With Constant & Trend	t-Statistic	-5.1556	-4.1990	-5.8113	-8.5168	-4.7217	-5.1293	-18.3786	-4.0182
	Prob.	0.0002	0.0179	0.0007	0.0000	0.0064	0.0029	0.0000	0.0018
		***	**	***	***	***	***	***	***
Without Constant & Trend	t-Statistic	-6.2824	-4.1976	-2.7583	-7.3443	-4.9940	-4.6676	-20.9193	-3.5565
	Prob.	0.0003	0.0002	0.0084	0.0000	0.0000	0.0001	0.0001	0.0000
		***	***	***	***	***	***	***	***