Level of financial inclusion and economic well-being in Nigeria: An indication of poverty eradication measures (1994-2021)

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Abstract

The study analyses patterns of financial inclusion and economic well-being in Nigeria between 1994 and 2021. It utilizes secondary data that are retrieved from the Bulletins for financial and monetary statistics, Annual financial reporting of CBN, publication of the Federal Office of Statistics (F.O.S.) and that of the World Bank from 1994 to 2019. Cross-sectional design methodology is used to obtain data on the independent variables to include GDP per capita for economic wellbeing and financial inclusion index for financial inclusion in Nigeria from 1994 to 2021. The data collected are analyzed using charts and mean values. Results discloses that both economic wellbeing and financial inclusion experience up and down movements during the study period. While well-being among people as captured by the GDP per capita changes by 107.3 naira per period, within the same period, the financial inclusion of the people changes by 0.0282 per unit per year which represents about 27% change in GDP and 1.097% in financial inclusion. The study concludes that both economic wellbeing and financial inclusion have positive changes in poverty eradication between 1994 and 2021 in Nigeria.

Keywords: Financial Inclusion, Economic Well-being, Nigeria, Indication, Poverty Eradication

Introduction

Rising productivity of financial inclusion being an indicator exhibited in the growth of an economy has been well stated in the literature. Banco Central do Brazil (2010) sees financial inclusion as everyone's right being a good sign of sound living conditions and to stimulate people's financial capability in reducing poverty levels. Therefore, financial inclusion has been a fundamental access for every individual with non-rival and nonexcludability. Non-exclusion and non-rivalness do not make financial inclusion a public good, it is rather seen as being a quasi-one.

Oz-Yalaman, (2019) observes that financial inclusion which includes the fundamental accessibility to all services and facilities in the system of finance may be regarded as crucial signs of an increased economic well-being, welfare, reduced poverty and enhanced macroeconomic stability. Therefore, granting people accessibility to services in financial activities has daily become a source of worry for the government and policy regulators with the understanding of its being an indicator of social as well as financial performances. Financial inclusion is assumed a sign of accelerated economic improvement and overall economic well-being. This realization is one of the main reasons for making policies and reforms for enlargement of world financial inclusive activities as a way of sustaining the global economic optimization. This could be assumed fundamental as being as an indicator of an accelerating economic growth when individuals are economically well off, their financial inclusive practices gear up funds intermediation in the economy leading to rising income levels and optimizing tax payment to the government purse.

There has been a global impediment to realize elusive financial inclusion where there is over 54% of the world adult population being excluded financially despite the world agreement of introducing polices and reforms to estimate financial development to trigger economic well-being as a factor for financial inclusion. World Bank Group, (2019) observes a more deteriorating condition in financial inclusion in the most developing economics with a greater extent of poor economic well-being where not less than 70% of adults are financially excluded. Dimova and Adebowale, (2018) also identify that there is an enhanced financial inclusion in the developed nations where there is a high standard of living compared to the underdeveloped nations. Nigeria, with 200 million population of approximate 3% growth per annum and #128Trillion Gross Domestic Product as the largest economy in Africa, is however with a regrettable highest percentage of financially excluded citizens which negatively impacts on the citizens' wellbeing (Eregha, Olusegun & Osuji, 2019).

In accordance with the World Poverty Indicator, Nigerians of about 98 million live below poverty line in 2019 which stands for not less than 49% of the total population compared to 86 million observed in 2009 (Eregha, Olusegun & Osuji, 2019). This shows that Nigerians of about 1.2 million enter line of pervert yearly. Enhancing Financial Innovation and Access, (2017) opines that with the introduction of some government reforms to stimulate economic well-being since the return to civilian administration in Nigeria, great turn-around has been recorded in inclusive financial activities in Nigeria where there was a favorable increase of about 23.6% adults in 2008 to 48.6% in 2014. Dimova and Adebowale (2018) observes that the little increase in the financial inclusion practices was as a result of introduction of reforms for liberalization of financial system with the launching of National Financial Inclusive Strategy in 2012 with subsequent reviews and re-launches.

CBN (2017) and EFInA (2017) observe that, regrettably, the success achieved in increased financial inclusion in Nigeria could not be improved upon further with the emergent crash in the prices of oil causing the Nigerian financial inclusive activities to decline from 48.6% in 2014 to 38.3% in 2016, which in turn caused a decline in the gross domestic product. Furthermore, Ibrahim, Ozdeser and Cavusoglu, (2019) observe that the central bank of Nigeria head of Financial Inclusion Strategy disclosed on the 14th October, 2019 that the Country's financial inclusion fell again to 36.8% in 2019 as result of economic recess and unnecessary tax levy on mobile banking system between 2017 and 2018. He said that just about 39.6% of adult Nigerians had bank accounts. compared to South Africa with 13% of unbanked adult population, the most reduced financial exclusion rate across majority of African countries.

There has been a plan for the adoption of Nigerian National Financial Inclusive Strategy by the Nigerian Apex Bank and other related parties by ensuring aggravation in financial inclusion from 30% in 2010 to 70% by 2020 with a periodic review to remain focused with the sole aim of showcasing overall well-being in the economy. Apart from this, a great number of researches on association which financial inclusion has on economic growth, poverty alleviation, tax revenue has been carried out (Oluyombo, 2014; Ogonna, 2016; Maherali, 2017; Ogbeide & Igbinigie, 2018; Ahmad, Green, & Jiang, 2020) etc. Several other studies (Sweta and Rahul, 2017; Sanderson, Learmore and Pirre, 2018; Umar, 2019; Joseph, Ayse and Houra, 2020 etc.) have also written on the development of financial inclusion index together with propellers of this inclusion. However, with limited understanding of the researcher, restricted study has written to analyze the pattern of financial inclusion viz-a-viz economic well-being. Therefore, patterns of the Nigerian financial inclusion practices and that of economic wellbeing will be ascertained through empirical analysis.

Literature review

Financial Inclusion

The concept inclusive finance seems to be multifaceted as it involves multiple accessed to the adoption of the varieties of financial services. The rising prominence of inclusion finance being a propeller of growth and development of economy could not be over emphasized. It is generally accepted today as crucial for all &sundry to be socially included, improvingly enjoying better qualify life and strongly experiencing strengthened economic capabilities as these are some of the goals behind financial inclusion. The historical motive behind financial inclusion includes continuous access to variety, easy and feasible financial serves at affordable costs. This access to the variety of financial services is assumed to be one of the propellers of the growth in the economy. This financial inclusion revolves round the affordable, feasible, pertinent and sustainable financial services to be enjoyed by the financially excluded populace majorly in the remote areas.

Tita and Aziakpon (2017) observe that there has not been any generally recognized definition of financial inclusion in spite of its rising importance in the literature. The diverse jurisdictional approaches as well as its multifaceted portrays the generally nonaccepted definition of financial inclusion. Narrowly, financial inclusion connotes all financial services responsibly and sustainably distributed across the general economy. However, financial inclusion is seen, in a broader sense, as the procedure relating to availing the poor and needy masses in the country with an organized and sustainable financial system to guarantee timely and efficient facilities at most relative cost.

This notion of financial inclusion is a concept with diverse perception as showcased in literature with a consensus that financial inclusion entails general financial and other related services which include deposits, facilities, customers' savings, on-line transfers, electronic deposit receipt and payments, ATM and POS services, rural and urban banking facilities etc. Furthermore, the majority reference to financial inclusion in literature portrays it to mean financial services that are freely affordable, timely, accessible, and sufficient with full awareness by all citizens to ensure reduction in the level of penury. Also, financial inclusion is perceived as an avenue to enhance unhindered accessibility to official and unofficial services in terms of finance at an affordably reduced cost to the marginalized segment of the country's population (Ozughalu & Ogwumike, 2015 and Umoh 2016).

Aro-Gordon, (2017) observes that financial institutions such as microcredit banks, deposit money banks, mortgage financial institutions, merchant banks, credit unions, provide wide range of full financial inclusion services. These full financial inclusion services infer provision of full access of a full package of financial services in the forms of savings, financial education, bank account operations, insurance services, loan and credit services, e-payment, money transfer services just to mention a few. The individual and firms that are included financially receive countless number of gains like growth as against the people that are marginally excluded financially. Qamruzzaman and Jiango (2019) opine that there is an encouragement of financial accumulation of the unbanked populace into the official financial system through diversification of financial activities with greater opportunities for investment openings.

Olaniyi and Adeoye (2019) also see financial inclusion as a condition under which greater percentage of financial products get to adequately great number of the people and corporate bodies. Finance inclusion is the efficiency in the usage of a long range of qualitative, feasible and easily accessible financial products that are fairly and openly provided by an organized institution(National Financial Inclusion Strategy, 2016). Aina and Oluyombo (2014) view financial inclusion as a deliberate attempt that makes poorly marginalized people to involve in the organized economic activities by regularly using and owning regulated financial products.

According to Onaolapo (2015), financial inclusion involves a system which guarantees the affordable access to, readiness of and adoption of the coordinated financial system with the involvement of all members of the economy. He continues to explain financial inclusion as a procedure in which all individuals in the country have no issues in bank accounts opening with ease of accessing loan and other major facilities. Mentor and Uba (2013) describe financial inclusion as strengthening access to monetary products to the variety of agents in the economy at a reasonably low cost, mostly the vulnerable ones. Umaru (2014) observes that financial inclusion is antonymous to financial exclusion which is the non-availability or unaffordability of financial services as against the financial inclusion services with abundant availability or affordability of numerous financial products to all categories of individual and corporate economic agents in the society.

The main idea behind the inclusion is to link each economic agent to financial institutions for tapping opportunity from the range of available financial services to guarantee growth in the economy. It is assumed that there is an achievement in financial inclusion if each Nigeria adult could have undisturbed link to a wide number of organized financial services that satisfy individuals means at reasonable costs. These financial services or products are in the forms of e-payments, loan facilities, overdrafts, deposits or savings, share investments etc.

World Bank Group, (2019) opines that financial inclusion is a wide, qualitative and affordable financial product to the people that are marginally and financially excluded. Sanusi, (2011) attributes country's increase in the number of poor people to the issues in inclusive finance. He further states that enjoying maximum level in the financial inclusion activities or services would only be assumed where over 70% of the Nigerian populace lives above poverty line leading to general well-being in the economy. This level of financial inclusion in the country would lead to favourable economic activities with an incomparable growth in the country GDP and this would subsequently eliminate poverty. Conversely, financial exclusion refers to the incapability of greater percentage of economic agents to gain access to the organized financial products. Financial exclusiveness is the unavailable and unaffordable access of some economic agents to gainfully appreciate reduced costs in the use of financial products from the financial operators (Mohan, 2006).

Financial exclusion results from factors such as high level of financial literacy, inefficient financial products, insufficiently ineffective technical know–how banking operations by the monetary regulators and operators, inefficient financial system, protocols involved in financial intermediation as well as poverty, just to mention a few. This concept of financial exclusion is therefore the incapability of several economic agents to efficiently integrate in the organized financial system for their wellbeing. Matin, (2002) observes that financial exclusion could be a way of preventing some certain economic agents from benefitting from ranges of financial products.

Obaidullah and AbudLatif, (2007) also see financial exclusion as a lack of ability on the parts of some certain less privileged economic agents to gainfully tap opportunities abounding the financial system which could lead to the desired growth and development of the nation's economy. Financial exclusion could be voluntary or otherwise. A voluntary financial exclusive is a situation in which some economic agents adopt non-participatory attitude owing to uselessness of the system to them or for some imbibed traditional beliefs or religions philosophy.

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Economic Well-being in Nigeria

General understanding of this notion, a unit economic wellbeing or economic condition is capacity to attract services or goods according to one's desire. This concept is abstruse in nature as it is parallel or similar, in the literature of public finance, to the notion of payer's ability as there could hardly be an accurate or straightforward proxy for it in a perfectly objective manner. This shows that the measure of economic welfare is subjective in nature. Well-being has a correspondent meaning to the level of life quality (Oni & Adepoju, 2014). This covers both social and material well-off. When there is an abundant body quality in terms of healthy living, body strength and good mind frame, this, more often than not, is meant by being material well-off. At the same time, self-respect, care of children, fantastic family and community relations, guaranteeing adequate security with inclusion of safety, peace, individual and physical confidence, and secured environment, enjoying free choice of action to involve being helpful to some other people in the environment. The implication of this is that wellbeing is more encompassing than asset and revenue magnitude despite the fact they are crucial aspect of wellbeing (Stevensons & Wolfers,2008 and Ijaiya et al, 2009).

Rigon (2020) explains that the notion of wellbeing is conceptualized to be an attainment of fundamental needs by means of growth in economy. In the same vein, wellbeing could also be regarded as a basic avenue to realize larger output and expansion and is at same time seen by wider notion of safety, security with social order.

Zacharias and Masterson (2014) observe that the term, economic wellbeing is considered a family's ability to gain uncontrolled access to the output generated in a digital capitalist economy within a certain time period. Traditionally, several efforts have been made to estimate wellbeing with proxies like consumption spending and revenue generation. However, these proxies have not been able to accommodate the rewards expected to be accrued from the government spending on areas like social amenities and trainings, property ownership and canon of taxation. There was impossibility on the parts of the measures to showcase the imparted government spending on amenities and learning, property belongings and burden of taxation. The extent of the reinforcement to be exercised is adjusted by revenue proxy so far the family revenue, in principle, shows the means in the cover of each family to engage in recurrent consumption of property acquisition. Historically, revenue in terms of money seems to be normally served to showcase such reinforcement.

The Gross Domestic Product growth has never been adopted lonely as a proxy for assessing wellbeing but, rather consider a variety of factors to reinforce the general level of wellbeing of the populace by considering distributional and environmental quality values in the totality of commodities produced in a country over time. There were attempts by statisticians and economists to adopt other ways or measures to proxy economic wellbeing to involve Gross Domestic Products and some other country's economic indicators.

The GDP per capita has been often adopted by economists to proxy wellbeing globally. However, there are other good measures or proxies of wellbeing aside GDP per capita based on the framework existing within a country's national accounting system. One of these other proxies is national income data. The approach involved in the construction of GDP equalizes DGP to aggregate income realized in the course of production process and this system make GDP a concept in production. Nigerian residents earn a lot of income in the process of production in foreign nations as non-resident equally earns revenue from Nigeria. Adjustment can be made on the GDP through net foreign revenue so as to get the total income accrued to a particular country which is known as gross national income as this is more pertinent to the wellbeing than gross domestic product.

When Sir John Hicks defines income as the utmost amount a man may spend throughout a certain period of time which is assumed to remain same at the aftermath of this same period, this monetary income is viewed as an adjusted GDP. Adjusting the stated GDP to more closely match Hick's definition is one way to get closer to a measure of wellbeing. It is important to note that "sustainable income" according to Hick's definition is almost a tautology; Hicksian income is maximum sustainable consumption. If Hick's method were applied to national income, a broad measure of depreciation would be subtracted from GDP, resulting in net domestic product (NDP), which is GDP excluding the depreciation of the produced capital stock. Movements in the GDP and NDP, on the other hand, frequently resemble one another when there is minimal structural change. NDP has increased more slowly than GDP over the past two decades because the IT industry, which is prone to high depreciation rates, has grown to constitute a larger portion of the economy. Although the value of output is included in GDP, not all of it benefits the populace. There may be considerable disparities between GDP and Gross National Product in economies where significant foreign ownership (or substantial foreign asset ownership) exists (GNP). A gain in GNP or NDP brought on solely by inflation does not indicate a rise in wellbeing. Additionally, if the GNP or NDP rises but there is a higher rise in population, the typical citizen is not better off. Real net national disposable income per capita from the national accounts as they are now compiled is perhaps the best indicator of the wellbeing of the nation's citizens.

The presentation of composite indices, which typically include GDP but also give weight to other measures of wellbeing, is another method for proxying economic well-being. A notable example is the Human Development Index created by the United Nations, which includes per capita GDP, life expectancy, and education (Australia is second to Norway on this measure.) The concern with this type of measures is how arbitrary the weighting can be: how many extra dollars in average income is sums up as an extra year in life expectancy? In an effort to weight the data by their contribution to projected utility, Jones and Klenow (2010) combined data on consumption, leisure, inequality, and death. Their indicator turns out to have a strong relationship with per capita GDP. Another similar index is the Canadian Index of Wellbeing, which equally weights eight factors: living standards, population health, community vitality, democratic participation, leisure and culture, time usage, education, and the environment.

Empirical Review

Efobi *et al.* (2014) carried out usage and accessibility examination on the financial services by banks in Nigeria. This study main focus was on the ascertainment of major pointer of bank financial inclusion encouragement. Secondary data on explained and explanatory variables were gotten from Financial Index Data of World Bank in 2011. While the independent variables included age, gender, education, and IT, The use of financial banking services, account usage, including savings and withdrawals, are the study's dependent measures. Age, income, propensity for using IT, gender, education, and financial discipline are employed as independent criteria. Multiple regression was used to build and estimate a probity model. The findings suggest that age, income, and those who have a preference for using IT are the main factors of inclusive finance. Other factors were discovered to be not important.

Musa et al. (2015) investigated gap in the factors influencing financial inclusion on gender employing dataset of 2011 Global Findex. The study made use of fairlie decomposition and binary probit methodology for data estimation. It was found out that high levels of literacy and riches determined degree of financial inclusion practices. It also showed that factors like ages, income and wealth levels in the family influence to a certain extent the financial inclusion in the country.

Nandru et al. (2015) analyzed grounds for maximizing financial inclusion in Pondicherry region. There was a utilization of multiple regression estimate in the analysis of association among frequency, accessibility and usage in services rendered by banks. It was revealed that freedom of accessibility to all bank facilities and simplicity of bank account opening were significantly influencing frequency and usage of services rendered by banks.

Siddik et al. (2015) evaluated stimulants impacting on the financial inclusion practices in Bangladesh. The study employed multi-dimensional estimates in measuring the data. It was revealed family size, population of rural people, as well as level of education were significant factors in determining level of financial inclusion practices in Bangladesh. Deposit penetration in financial sector played major role in shaping financial inclusion practices.

Tuesta et al. (2015) investigated main factors stimulating inclusive finance in Argentina. The study utilized financial inclusion dimension which includes factors at supplier's side, factors at individual person's side, factors at perception side. Factors at individual person's side which include age, literacy and income level found to influence to financial inclusion. However, Age and level of income influenced perception of different barriers of involuntary exclusion.

In 2016, Allen *et al.* looked at the factors that affect financial inclusion. The study's goal is to pinpoint the distinctive characteristics of inclusive finance that apply to particular people and nations. The Global Findex database of 2011, has a compilation of panel data from 123 nations. To estimate the model, the study used multiple regression approach. The calculated model identified increased legal rights, political stability, cheap account running costs, and proximity to banking services as important factors of financial inclusion. The survey also discovered that the populations most likely to be excluded from financial inclusion programs are rural sellers, the poor, and young individuals.

Evans and Adeoye (2016) determined the influence stimulating the extent of financial inclusion in Africa from 2005 to 2014 employing Global Development Index. Traditional data for 15 African countries were obtained and analysed using dynamic panel regression estimate. It was found out that Gross Domestic Product per capita income, revenue to GDP, education level, internet accessibility and Islamic banking existence were found significant with financial inclusion. Also, it was concluded that level of accessibility to financial inclusion was not hindered by banking population, rates of savings and inflation as well as volume of facilities to real sector of the economy.
The 2016 study by Nandru *et al.* looked at what influences access to financial services in India. The dependent indicator is account ownership, while the explanatory variables are age, income, sex, employment position, and education level. 98 respondents in the Pondicherry region provided the primary data, which were compiled using a standardized questionnaire. Binary logistic regression was used to estimate the qualitative data. The findings revealed linear metrics of financial participation in India based on income level and work status. The other factors were discovered to be detrimental and inconsequential.
Olaniyi and Adeoye (2016) investigated fundamental forces determining African financial inclusion ranging between 2005 and 2014. There was an employment of dynamic panel data estimate in the study which was used to analyse determinants of African financial inclusion. It was found out that determinants of African financial inclusion like income per head, level of education, internet availability, Islamic banking activities constituted huge determinants of African financial inclusion.
Zins and Weill (2016) evaluated determinants of African financial inclusion. The main focus of the study was evaluation of determinants of the extent of African financial inclusion. The study adopted World Bank's Global Findex database to elicit data for the estimation of the study model covering 37 nations in Africa. It was revealed that wealthier people, highly literate people and larger percentage of elderly people reinforce much significance on financial inclusion. Digital banking service was equally significant with the financial inclusion in African more than old banking system. Also, the study revealed a great difference in performance of digital financial system over the historical financial system.

Ajide (2017) ascertained the patterns as well as the determinants of Sub-Saharan African countries' financial inclusion: Does institutional infrastructure matter? The study ascertained the influence of financial inclusion through the functions and activities of financial sectors. The study made use of a sample of eighteen (18) sub- Saharan African (SSA) countries by means of dynamic system of Generalized Method of Moments (SYS-

GMM) estimate. It was revealed that financial sector, per capita GDP, rate of information, concentration of bank branches was observed as the main drivers of financial inclusion. It was concluded that financial sector was the main avenue for the effectiveness of financial inclusion in the Sub-Saharan African countries.

Uddin et al. (2017) investigated instances for enhancing financial inclusion in Bangladesh from 2005 to 2014. The study adopted 37 African countries and the data were obtained from World Bank's Global Findex database and the analysis was affected through generalized method of moments and the quintile regression estimate. There was a clarification in the study between supply and demand side influences which impact on financial inclusion. It was believed that level and rates of education and age dependence ration reinforce demand side and efficiency, bank size and rate of interest enhanced supply side.

Lema (2017) considered the variables affecting the masses with non-banking users of on-line banking services. The study made a sample of 250 respondents who were administered with standardized questionnaires and adopting multiple regression estimate as well as structural equation model. According to the estimates, the explanatory factors significantly affect mobile financial services.

Abrol and Kaur (2018) looked at the elements affecting financial inclusion in India's Jammu and Kashmir States. Structured questionnaires were used to collect primary data in order to do this. Four districts, each with 100 respondents, make up the study's sample, for a final sample size of 400. The estimating method used the principal component analysis method. The findings suggest that factors influencing financial inclusion include bank service, bank credit, income, financial access, health insurance, savings, use of financial services, and the availability of agency banking.

In their 2018 study, Akileng, Lawino, and Nzibonera looked at the variables affecting access to financial services in Uganda. In Uganda, a cross-sectional survey design was used with an adult population from both the rural and urban areas. Data were gathered using a standardized questionnaire, and multiple regression was used to estimate it. In Uganda, the study indicated that financial inclusion is significantly influenced by age, financial literacy, and income, but not by gender or education.

Nwafor and Yomi (2018) carried out research on the bond exhibited by financial inclusion with economic growth in Nigeria. There was a direction to evaluate a connection between financial inclusion and economic growth in Nigeria with formulation of two hypotheses with data ranging from 2001 to 2016. The data were analysed with the employment of Two-staged Least Squares Regression Estimate. It was revealed that financial inclusion was significantly influencing economic growth in Nigeria while intermediation in the banking sector was insignificantly affecting financial inclusion from 2001 to 2016. The recommendation was that banks in Nigeria needed to create financial products for better and improved financial inclusion across the regions in the country with a subsequently enhanced economic growth.

Ozili (2018) evaluated financial inclusion in Nigeria: determinants, challenges, trends and achievements. The metrics for financial inclusion in Nigeria were examined in this article. According to the findings, those who completed at least their secondary school and those who were unemployed owned more debit cards, accounts of all kinds, and accounts at financial institutions. Additionally, those with a minimum of secondary education borrowed more money from banks or other financial institutions and saved less money in these same institutions. On the contrary hand, the percentage of women, the poor, and those with only a primary school or less who saved via a savings club or someone outside their family fell. Furthermore, the possession of credit cards decreased among the unemployed while rising among the employed, the richest individuals, and those with a minimum of a secondary school education. Additionally, the top categories for borrowing from family and friends fell in 2014 and 2017. Lastly, the econometric estimation demonstrates that borrowing and saves from sources other than financial institutions (such as family, friends, or savings clubs) greatly contributed to economic growth.

In a literature review for the determinants of financial inclusion by Ong'eta (2019), the research involved a review of earlier studies on financial inclusion. The factors of financial inclusion were established by a study of empirical research publications. In the study, it was determined that supply- and demand-related factors both affect financial inclusion. Education, individual income, income of households, collateral, participation in an employment guarantee program, age, income inequality, financial literacy, savings, and gender are among the demand-related characteristics. High interest rates, mobile banking, agent banking, ICT, bank branches, sensitivity to financial goods, advise on money management, and debt counseling are among the supply-related factors that affect financial inclusion. The urbanization and supportive environment are the additional reason. The study concluded that financial inclusion is essential for economic growth and that the government should implement measures to further this inclusion. In order to align them such that they encourage financial inclusion, it is also important to consider the demand- and supply-related aspects.

In 2019, Poonam and Chaudhry set out to investigate the elements affecting financial inclusion in India. The study used primary data that was gathered by way of a questionnaire. 411 family units make up the study's sample size. The logit regression technique was used to estimate the model. It became clear that factors such as age, gender, and occupation have a negligible influence on savings. Caste, education, and property ownership were all desirable but unimportant factors. The study finds that income is a substantial positive factor of savings, the study's measure of inclusive finance.

Charles-Anyaogu (2020) studied financial inclusion and output in Nigeria, using time series data for the years 1992 to 2018 from the Central Bank of Nigeria's statistical bulletin. The analysis made use of the cointegration, causality, unit root, and ordinary least square tests. The results of the causality test reveal that the causality between the Microfinance Bank Deposit and the Output is unidirectional, whereas the causality between the Loan and Advances and the Output is unidirectional, moving from the Output to the Loan and Advances. All variables are stationary in the initial stage of differentiation, according to the unit root test result. Additionally, the association between output and bank deposits was significantly positive, whereas the relationship between output and loans and advances was minimal. However, the variables have a long-term equilibrium connection. This indicates that in the instance of Bank Demand Deposit and Output, what existed in the short term persisted in the long term. It goes on to demonstrate that the impact of loans and advances on output is most felt over the long term, at which point the businesses that obtained the loans must have generated economic output. The study suggests that, given its significant impact on output, financial inclusion be promoted by the Central Bank of Nigeria and commercial banks. Additionally, extending banking services to rural places will increase economic productivity while also reducing financial exclusion.

In 2020, Eze and Mark jackson looked into Nigeria's financial inclusion trends and factors that influence them. The goal was an assessment of access to financial services in Nigeria. In order to estimate, supply side data from 2000 to 2018 were gathered. The World Bank Development Indicators and the Central Bank of Nigeria database were the sources of the information. The data from the time series were estimated using the ordinary least squares method. The drivers and trends of financial inclusion in Nigeria are examined in this study. To determine the extent of access to financial services in Nigeria, this was done. For the estimation, supply side data from 2000 to 2018 were gathered. The error correction method was used to estimate the time series data. According to the results, commercial bank branches and deposit interest rates have a detrimental but minor effect on financial inclusion. Additional findings show that lending interest rate, the ratio of rural deposits to loans, and domestic credit to private sector (% of GDP) have a positive and significant influence on financial inclusion. The findings also suggests that financial inclusion is positively and insignificantly impacted by gross domestic product per capita. The study comes to the conclusion that factors influencing financial inclusion in Nigeria include domestic credit to the private sector (as a percentage of GDP), the ratio of rural deposits to loans, and lending interest rates. According to the report, attractive lending interest rates should be created to promote ongoing market access to loanable funds. Therefore, the goal should be to create a financial environment that supports rates that are driven by financial availability. That is, rates that would incentivize economic agents to borrow and save in order to increase economic activity.

Kazemikhasragh *et al.* (2020) analysed measurement and assessment of financial inclusion in some underdeveloped African and Asian countries. The study was purposely to investigate some the factors determining financial inclusion among these countries in an attempt to assess the level and degree of this financial inclusion as it was practiced in these two continents. The study adopted secondary data which were come by from the data on world bank news and these data were analysed through econometric estimates. It was shown that both the youths and female gender were not fully included financially while both literacy and revenue generation capacity could be optimized for stimulating financial inclusion in the regions. The study further showed that the more citizens were officially included financially, the more the deposit savings capacity with eventual economic development promotion of the two continents.

Marshal (2020) analyzed equally evaluated the nature and direction of financial inclusion in Nigeria through the analysis of the patterns, advancement and threats experienced so far. The study main objective was to carry out an indepth analysis and assessment of the current level, the advancement recorded so far as well as the threats being faced in meeting up with the financial inclusion target in Nigeria as well as the positive effects it made on the general Nigerian economy. It was shown that the biggest threat to the Nigerian financial inclusion level was seriously huge level of penury, corporate financial exclusion as well as poor citizens' behaviour in terms of financial issues. The study recommended that the government across levels should focus more on job creation for the youth for alleviation of penury attempt, intensification of efforts on on-line financial and banking activities could better reposition the country's financial inclusion.

Rashdan and Eissa (2020) carried out on factors and patterns exhibited in the Egyptian financial inclusion practices with the aim of investigating the factor shaping the country's patterns and levels of its financial inclusion system and practices. The study made use of secondary data elicited from the global findex 2017 database of the World Bank Group and the data were analysed through regression estimates. The study revealed that women did not have any significant relationship with patterns of financial inclusion in the country while level of literacy, riches, and age maturity were mainly significant with the level of financial inclusion in Egypt. It also showed that level of destitution which drastically negated keeping money in banks was discovered to be a major hindrance to the progressive development of financial inclusion across the universe.

Wale-Awe *et al.* (2020) studied Impact assessment of the financial inclusion strategy in Nigeria: Lessons from BRICS and other countries. This study evaluated Nigeria's financial inclusion plan and its impact on economic growth from 1986 to 2018. Using the ARDL and Pairwise Causality Techniques, the study regressed deposits to rural bank branches, loans by rural bank branches, the number of bank branches, and interest rates versus per capita income. Financial inclusion was found to have a very favorable impact on Nigeria's economic growth. In the meantime, a one-way causality was discovered connecting financial inclusion with economic development, primarily via loans from rural bank branches.

In the race to attain an inclusive economic development, Nigeria still lags behind some other African nations and the BRICS, according to comparative research. It was suggested that in order for financial inclusion to spur real development, loan interest rates be lowered to single digits and deposits from rural areas be given as loan credits to residents of those areas rather than being sent elsewhere for urban development.

Methodology

Research design, data and sample description

An Ex-post facto design is utilised for the study. The research design for the study will be used to obtain data on the independent variables to include tax structure variable (total tax revenue within the economy) and 'real net national disposable income per capita' for economic wellbeing and on dependent variable (financial inclusion index) in the country from 1994 to 2019. This is considered appropriate for an underdeveloped nation and also sufficient enough in order to accurately analyze the variables' changes in behaviour as against the cross-sectional design methodology usually adopted by most works in this area. The population comprised all tax revenue, per capita and commercial banks in Nigeria, whose data are available on the official bulletin and publication of CBN, that of Federal Office of Statistics (F.O.S.) and the World Bank Report as at 31st December, 2019. At the same time, it includes information of the private individual bank users whose banking information could be accessed on each bank website and the Central Bank of Nigeria official bulletin as at 31st December, 2019.

Measurement of Variables

Sarma (2008 a) examined three dimensions to gauge the degree of inclusion in designing or conceptualizing the notion of "Financial Inclusion Index"." This covers access penetration to measure bank operators, for every 1000 people, financial availability to assess easy circulation of money for measuring closeness of branches of financial institution with their ATMs per 1000 people, and usage to proxy for uninterrupted services per users.

Sarma adapts the idea utilized in the Human Development Index calculation with three variables for outreach and one variable for utilization (HDI). The different dimensions were given equal weights in Sarma's study (2008 a). IFI scores are used to classify nations into three groups: high financial inclusion (a score over 0.6), medium financial inclusion (a score between 0.4 and 0.6), and low financial inclusion (index < 0.4). In Sarma's footsteps (2008), who developed the Index of Financial Inclusion (IFI) for certain states based on the idea of the UNDP Human Development Index (Kumar & Mishra, 2009; and Kumar, 2011). Using the same types of aggregate indicators, Mehrotra et al. (2009) created an index for financial inclusion using banking data for sixteen of India's largest states. These indicators included the volume of rural deposits and credit, the number of rural offices, and the number of rural deposit accounts. At the district level in India, NABARD (2009) estimated values for the Financial Inclusion Index.

This study will adopt the Financial Inclusion Index constructed by Sarma in 2008. It indicates that the dimensions of Financial Inclusion Index are considered based on 'penetration', 'availability' and 'usage'. After giving equal weights to the dimensions, the index of financial inclusion (IFI) will be computed as follows:

$$IFI = 1 - \sqrt{\frac{(1-p_i)^2+(1-a_i)^2+(1-u_i)^2}{3}}$$

Where;

p_i = penetration

a_i = availability

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u_i = usage

The FII usually has results in-between 0 and 1. While 0 stands for non-existence of inclusiveness financially, 1 represents total and absolute existence of financial inclusion in the economy (Sarma & Pais, 2008).

Results and Discussions

Patterns of finance inclusion and economic well-being in Nigeria from 1994 to 2019

It is very difficult to achieve financial inclusion without an improvement in people welfare. This section reports the report of the analysis on the patterns of finance inclusion and economic well-being in Nigeria from 1994 to 2019. Within the sample period, well-being of the people as captured by the GDP per capita changes by 107.3 naira per period, while within the same period, the financial inclusion of the people changes by 0.0282 per unit per year. The GDP per capita rose from 321 naira in 1994 to 408 naira per capital in 1995, while financial inclusion rose from 0.3308 to 0.3344 in 1995. The rise in GDP per capital represented about 27% change, while financial inclusion represented about 1.097% change. In the same manner, the economic well-being of the people rose from 408 naira in 1995 to 568 naira in 2000. There was significant jump from 1999 to 2000, with about 14% change, while financial inclusion falls from 0.334 to 0.3324 from 1995 to 2000.

This period witnessed sudden rise in income level of civil servant in the country. Minimum wage of workers was increased, new investors were welcomed, international organizations were once again ready to partnered with the country, this probably could have been the reason why the well-being of the people improved during this period. Moreover, the event in this period revealed that some banks experienced weak operation, which could have led to drop in demand for banking services and hence fall in financial inclusion. More so, the economic well-being of the people grew from 590 naira in 2000 to 1268 naira in 2005, while financial inclusion falls from 0.3324 to 0.2240. There was policy change in financial sector of the country within this period, banks were asked to recapitalized and the weak ones were asked to merged with the strong ones. The total number of banks reduced in the country, which arguably could have reduced banking services accessibility despite the rise in GDP per capita.

Furthermore, the GDP per capita of the people, rose from 1268 in 2005, 2280 naira in 2010, while financial inclusion rose from 0.2285 to 0.7753 within the same period. In the year, 2016, the country GDP per capital fell significantly owing to the decline in the price of oil , which constitute the bulk of the country earnings, this fall continue to 2017, which represent the period of recession as reported by the government, there was increase in the GDP per capita from 1969 in 2017 to 2230 in 2019, while economic well-being was declining, the financial inclusion of the people was increasing due to the fact that POS and other mobile money platform gained entry into the country financial sphere.

Considering the analysis in table 4.1 where there was a presentation of the percentages in both gross domestic product per capita and financial inclusion, it could be observed that both the GDPPC and FI experienced upward and downward movements from 1994 and

2019. However, when the GDPPC experiences negative mean percentage change of (17.14%), FI experiences positive mean percentage change of 5.59% between 1994 and 2019. Though financial inclusion shows a negative percentage change, the rate of growth is nothing to write home about. This result was in line the result in the study by Wale-Awe, Alabi and Omoloye (2020) where they observed that financial inclusion was poorly improved upon.

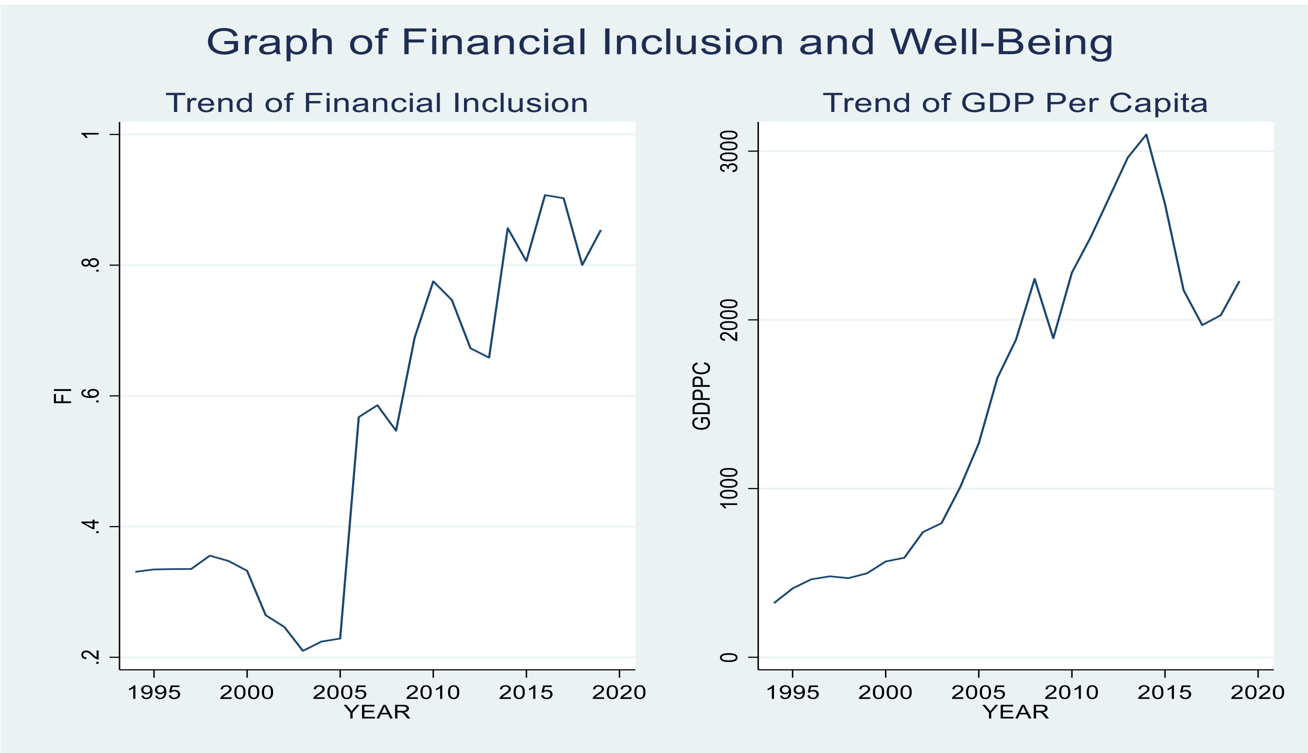

Table 4.1: Trend of Financial Inclusion and Well-Being in Nigeria

Year	gdppc	Fi	Gdppc(%)	fi(%)
1994	321	0.330815		
1995	408	0.334445	27.1028	1.09729
1996	462	0.334964	13.23529	0.155182
1997	480	0.335103	3.896104	0.041497
1998	469	0.355469	-2.29167	6.077534
1999	498	0.347394	6.183369	-2.27165
2000	568	0.332417	14.05622	-4.31124
2001	590	0.264388	3.873239	-20.465
2002	742	0.246472	25.76271	-6.7764
2003	795	0.209841	7.142857	-14.8621
2004	1008	0.224094	26.79245	6.792286
2005	1268	0.228581	25.79365	2.002285

2006	1656	0.567554	30.59937	148.2945
2007	1883	0.585734	13.70773	3.203219
2008	2243	0.546716	19.11843	-6.66139
2009	1891	0.689057	-15.6933	26.03564
2010	2280	0.77531	20.57113	12.51754
2011	2488	0.746712	9.122807	-3.68859
2012	2724	0.672817	9.485531	-9.89605
2013	2962	0.658597	8.737151	-2.1135
2014	3099	0.856597	4.625253	30.06391
2015	2687	0.806277	-13.2946	-5.87441
2016	2176	0.907219	-19.0175	12.51952
2017	1969	0.902478	-9.51287	-0.52259
2018	2028	0.80027	2.996445	-11.3253
2019	2230	0.853791	9.960552	6.687868

Conclusion

The study concludes that level of financial inclusion is interrelated with the level economic well-being based on the degree of the adoption of technological advancement. There has been an increasing trend in the financial inclusion over the year with level of country's economic performance. The findings were also in line with the findings of Soumar, Tchana and Kengne (2016), Bayero (2015), David, Oluseyi and Emmanuel (2018) who were of the opinion that level of a country's economic well-being determines financial inclusion capacity. Findings from the present study showed also that there was an upward movement in financial inclusion while there was an upward and downward movement in economic well-being during the study period in Nigeria. These findings are also in accordance with the findings of Olaniyi (2015, 2016).

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