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Financial inclusion and gender-induced poverty in Nigeria

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ABSTRACT

The goal of this study was to see how financial inclusion affects gender-based poverty in Nigeria. Commercial bank branches, deposits, and borrowers were the proxy for financial inclusion. The poverty index was used to measure poverty reduction. The World Development Indicator (WDI) and the CBN Statistical Bulletin 2021 provided the data for this study. Finally, the study included the years 2002 to 2019. Financial inclusion reduces household poverty in Nigeria, according to the study, which used a VAR estimate. The coefficients of commercial bank branches and commercial bank deposits were (-0.004) and (-0.008), respectively, indicating that they had a negative influence on poverty reduction. Furthermore, the study discovered that having access to credit through a financial institution was crucial in lowering poverty in Nigeria over the study period. As a result, the report recommends that steps to promote the rule of law, particularly contract enforcement and financial regulatory inspection, be implemented, resulting in more financial inclusion and a reduction in poverty and income gaps, particularly between men and women. The benefits of financial inclusion must be made more widely known, particularly in rural regions, through promoting financial literacy among the poor through education, advertising, and traditional institutions.

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Introduction

Despite various programmes to alleviate and/or eradicate poverty, which is defined as a condition whereby a person lacks the means (financial and otherwise) to maintain an acceptable quality of living, poverty remains a serious problem in African economies. According to the World Bank, poverty can be described as living on less than US\$1.9 per day, (Anthony et al, 2021). People living in poverty have poor income and spending patterns, as well as a lack of clean water, decent housing, healthy food, competent medical treatment, and greater education. The persistent rise in poverty and economic suffering of people in Sub-Saharan African (SSA) countries is due to a number of factors, though every successive government, international organization, etc, have made various efforts to eradicate poverty by 2030, in line with the Sustainable Development Goals' (SDG) first target (Nirav, 2018).

Financial inclusion is one of the remedies for eradicating poverty in the globe since an encompassing economy is essential for the world's vulnerable individuals engaged in the informal sector, as it promotes daily payments (United Nations (UN), 2013). Financial inclusion is a critical component of halting social inequalities because it allows people to benefit from financial services and enables the low income but energetic citizenry to readily access lines of credit that can be invested in any business which can earn revenue for them, thus contributing to the beneficiaries' economic and social advancement (Mubiru, 2012).

Consequently, for years, many scholars, policymakers, and researchers have focused on the effect of financial inclusion on poverty reduction and economic growth in a country, due to its effect on improving access to financial services, which acts as a stimulus for

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overall economic well-being. Financial inclusion is a social inclusion approach that tries to improve all members of an economy's access to, availability of, and use of the formal financial system (Wakdok, 2018). It entails providing individuals and businesses with useful and cheap financial goods and services ethically and sustainably (World Bank, 2018). One of the subsets of financial development which emphasizes the availability of financial products and services to a wider group of people rather than the existence or quantity of financial institutions is financial inclusion (Alter & Yontcheva, 2015). Advocates for financial inclusion argue that the rising sophistication of regular living necessitates people and corporations having access to funds and other investment vehicles to carry out their personal and commercial monitoring on a routine. As a consequence, there was an increasing drive in recent years to develop a more equitable economic structure that distributes financial products to the most vulnerable members of the society. According to numerous researches (Demirgüç-kunt & Klapper, 2013), individuals with a range of needs require financial inclusion in order to have access to savings, payment, loan, and risk mitigation options. Okoye, *et al.*, (2017), opined that improved financial inclusion leads to increased loan origination and wealth generation, while also increased development and financial activity.

Furthermore, according to Yorulmaz (2012), access to finance helps with wealth distribution and utilization efficiency, resulting in decreased borrowing costs. Financial inclusion, according to Omar and Inaba (2020), is a tool that emerging economies can use to achieve inclusive and sustainable economic development, employment generation, reduction of poverty, and economic equality. In addition, larger but more significant financial inclusion could be the key to unlocking the possibility for expansion of micro and small companies, reducing income disruptions in underprivileged and rural areas, dynamizing progress, and supporting more inclusive and balanced development. Individuals having access to financial services and commodities, particularly in low-income regions, are more able to coordinate and retain their income, and households are more inclined to save and invest their money in beneficial reasons, according to a recent study on financial inclusion (Ruiz, 2013 & Schaner, 2016).

Gender inequality and poverty caused by gender can be reduced through meaningful financial inclusion. Women who have access to banking services may be better equipped to manage their finances and engage in personal and productive activities. They also have control over their own choices, such as work and marriage. It will also help to develop their businesses, choose where and how they work, boost productivity and profitability, and reduce their chances of becoming impoverished (Field *et al.*, 2016). They may also have more options for escaping dangerous circumstances and be less vulnerable to domestic violence, among other things. Gender-induced poverty is defined as when one gender experiences poverty at a higher rate than the other. Poverty is more prevalent among female households in Nigeria than male households. Gender inequality in poverty has been linked to workplace discrimination against women, as well as the fact that women often have less education than men and hence are paid less. Feminized poverty, on the other hand, has the potential to worsen and deepen gender inequities at a time when markets and countries are undergoing substantial and rapid changes.

Poverty is not a gender-neutral situation, as it affects more women than men, and men and women perceive poverty differently, as Bastos *et al.* (2009) pointed out. In most countries, women account for half of the population. As a result, any development strategy that ignores half of the population's life possibilities will fail to address poverty and sustainability concerns. This is why, at this critical juncture in global transition, the development process must incorporate a comprehensive agenda for women's empowerment that takes into account all aspects of women's lives. Understanding gendered poverty is therefore necessary for developing effective pro-poor development policies. Age, geography, education, and employment are only a few of the elements that contribute to gendered poverty, which is complex and varied. These traits must be investigated to understand gendered poverty and define policy options. As a consequence, this study examined how financial inclusion influences poverty reduction in Nigeria by gender, as well as the determinants of poverty and potential solutions.

In general, the goal of this research is to evaluate financial inclusion and gender-based poverty in Nigeria. The study's objectives are to: examine the impact of financial inclusion on poverty reduction in Nigeria; and profile the answer to Nigeria's gender gap in financial inclusion and poverty alleviation. The research used secondary data gathered from publications of the Central Bank of Nigeria and the National Bureau of Statistics (2021), and the data was analyzed using an ordinary least squares multiple regression approach.

Literature Review

Theoretical and Conceptual Background

As to who profits from financial inclusion results, there are differing viewpoints or perspectives. Some studies argue that poor people are the ultimate beneficiaries of financial inclusion, while many others genuinely think that financial inclusion outcomes apply to women, and yet others find that financial inclusion rewards the economy and financial system (Ghosh & Vinod, 2017). Besides the women and the impoverished, many other possible financial inclusion recipients are overlooked in the research, such as young adults, the aged people, ingrained individuals, persons with disabilities, and people who have already been ejected from the banking system for indictable offenses. Several theories of financial inclusion have been recognized to describe who is affected by financial inclusion according to Ozili (2020), these include; the public good theory, dissatisfaction theory, vulnerable group theory, systems theory, community echelon theory, public service theory, special agent theory, collaborative intervention theory, financial literacy theory, private money theory, public money theory, and the intervention fund theory. This paper considered the vulnerable group theory of financial inclusion as very relevant to the study.

Vulnerable Group Theory of Financial Inclusion

The vulnerable group theory of financial inclusion contends that financial inclusion programmes in a country should be tailored towards the most disadvantaged in society, such as the poor, youth, women, and the aged, who incur the most from financial distress and shocks. According to the argument, disadvantaged people are the ones who are most affected by economic collapse and downturns, hence it makes sense to bring them into the formal financial sector. Government-to-person (G2P) social cash transfers into underprivileged people's formal accounts are one technique to do this (Ozili, 2020). Making G2P unconditional cash transfer payments into the formal accounts of people living in poverty, youths, women, and the aged people could indeed motivate other disadvantaged populations – poor people, youths, women, and the aged people – to take part in the formal financial system and open a formal account to benefit from G2P social cash transfer gains, thereby speeding up the process of financial inclusion for these groups. The financial inclusion idea of vulnerable groups has several strengths. To begin, the idea sought to address the problem of financial exclusion by focusing on disadvantaged people and attempting to bring them into the official financial system.

Second, Ozili (2020) claims that the theory makes it easier to notice those who are economically disadvantaged in society. The degree of vulnerability in terms of income level, gender, age, and other demographic variables can be used to identify vulnerable members of the population. Third, targeting only the most disadvantaged members of society for financial inclusion may be more cost-effective than achieving financial inclusion for the total society. There are some flaws in the vulnerable group hypothesis of financial inclusion. To begin with, the idea does not place a high priority on financial inclusion for all members of the public. Second, it ignores non-vulnerable people that are not involved in the formal financial sector. Non-vulnerable persons require formal financial services as well. Finally, it suggests that women are a susceptible category, implying that men are not susceptible. Because women and men contend for equal chances in modern nations, classifying women as a vulnerable category to the exclusion of men could have unforeseen repercussions in terms of financial and social inclusion. It may result in cultural animosity of women among men. Finally, if social policies and financial regulations are designed to favor disadvantaged people over others, achieving financial inclusion by targeting exclusively disadvantaged people may worsen social inequality. If vulnerable people have better access to formal financial services for a longer length of time than others, it may contribute to income disparity (Ozili, 2020).

Financial Inclusion

Households and corporations enjoying financial inclusion have equal opportunities for financial goods and services that meet their needs, such as transactions, payments, savings, credit, and insurance, all of which are provided ethically and sustainably. Having access to a transaction account, which allows people to deposit money and send and receive payments, is the first step toward financial inclusion (Abraham & William 2015). In addition, because a transaction account acts as a gateway to other financial services, the World Bank Group's Universal Financial Access 2020 initiative aims to ensure that everybody in the globe has one. Availability of financial services makes life easier for households and businesses, allowing them to prepare for long-term goals to unanticipated emergencies (World Bank 2018). People with bank accounts are now more apt to use additional financial services such as credit and insurance to start and grow businesses, invest in education or health care, mitigate risk, and withstand economic storms, all of which can improve their overall living standard.

Since 2011, 1.2 billion people have gained access to banking services around the world, marking significant progress toward financial inclusion (World Bank, 2018). Financial inclusion, according to Mbutor & Ibrahim (2013), is a situation in which a person may obtain financial services from the official financial system at a reasonable cost. Leyshon & Thrift (1995) opined that financial inclusion is a condition in which individual have unfettered means to appropriate and suitable financial goods and services for efficient financial management.

Nigeria now has a population of about 200 million people, with over 60 percent of them being adults. However, the country only has 80 million total Bank clients, with just 25% confirmed on the Bank's verification system so far, with strong indications that a significant proportion of the remaining consumers are yet to be verified (World Bank, 2018). This indicates that Nigeria's degree of financial inclusion is still relatively low. The majority of active Bank clients are concentrated in metropolitan areas, where economic activity is increasing. Rural areas remain economically disadvantaged, with a large proportion of residents living in poverty.

Poverty

Poverty is a widely held idea that has been acknowledged as a worldwide problem. It is derived from the Latin word pauper, which means "poverty." Poverty is defined by the World Bank (2018) as a state of hunger, a lack of cheap housing, poor health, a low education, the inability to read and comprehend, joblessness, significant child fatalities, and living in constant dread. Poverty is characterized as both a severe shortage of necessities including food, shelter, clothing, and education, as well as a loss of identity.

Poverty can be classified into four categories (Ogunsakin & Fawehinmi, 2017). The first was dubbed "absolutely abysmal" or "chronic." This sort of poverty is not limited to fundamental requirements, but also extends to the sufferer's psyche. This is particularly frequent in Africa, where people lack ideas and are impoverished even in their mental condition, in addition to not having access to basic requirements of existence like food, clothing, and shelter. Relative poverty is the second type. This is described in terms of the standard of living that can be found in other parts of the world. It includes evaluating the level of life of people in various areas within

a society to assess comparability based on what is experienced at any given moment. While one person may be in a comfortable state, another may be in a state of discomfort. When comparing the level of living in industrialized and developing nations, this is increasingly apparent (Ogunsakin & Fawehinmi, 2017).

The third type of poverty is disguised poverty, which refers to situations in which people or organizations are examining the economic benefits of being poor as a means of accumulating money. This is the scenario in several Nigerian states, where organizations have continued to undermine the efforts of the government to improve people's living standards since doing so would cease the economic benefits, they derive from their low living conditions. This sort of poverty is common in areas with high levels of corruption and porosity in the system, and it is often fatal. The poverty of the mind is the last kind of poverty as identified by Ogunsakin and Fawehinmi (2017). This is a scenario in which a person or individual is unable to feel satisfied with themselves. The individual frequently feels undervalued and is never content with what he or she has.

Empirical Review

Through the use of an annual dataset spanning 2010 to 2017, Anthony et al (2021) studied the limiting influence of financial inclusion on poverty reduction in Sub-Saharan Africa (SSA). To determine the cutoff level of financial inclusion that will alleviate poverty and variables that impact financial inclusion, Hansen's estimation and Differenced generalized method of moments (GMM) approaches were utilized. The findings revealed that financial inclusion contributes to poverty reduction above a cutoff point of 0.365, with money supply being positively related to poverty reduction in SSA. The findings also revealed that local lending to the private sector had a favorable impact on financial inclusion. To benefit from the intended poverty reduction effect of financial inclusion, donor agencies and governments in the sub-region should adopt policies directed at creating a conducive atmosphere for financial institutions to provide financial services that are easily and frequently accessible and cheap to the general public.

Using the PVAR and Toda-Yamamoto VAR bivariate causation models, Erlando, Et al (2020) statistically examined the link between financial inclusion and economic growth, poverty, inequality, and other characteristics. In Eastern Indonesia, the results of the bivariate causality model show a high level of association between financial inclusion, economic growth, poverty, and income inequality. Growth in the economy has a beneficial effect on financial inclusion, but it has a negative effect on poverty. Meanwhile, financial inclusion reduces inequality, resulting in significant income disparities in Eastern Indonesia. Further research in the areas of non-economic factors that can improve financial inclusion for more inclusive economic growth was proposed in the study.

Koomson et al (2020) investigated the influence of financial inclusion on the poverty and vulnerability of Ghanaian households. Multiple correspondence analysis was used to generate a financial inclusion index, and three-stage feasible least squares were used to evaluate households' susceptibility to poverty, using data from the Ghana Living Standards Survey's seventh round in 2016/17. To resolve variability related to financial inclusion, the distance to the nearest bank was employed as an instrument in a probit technique for instrumental variables. Despite the fact that 23.4 percent of Ghanaians are poor, nearly half of the population is vulnerable to poverty. According to the study, increased financial inclusion has two effects on household poverty. To begin with, it has been related to a 27% decreased risk of a family being impoverished. Second, it reduces the likelihood of a family becoming impoverished in the future by 28%. Female-headed families are more likely than male-headed families to see a reduction in poverty and vulnerability to poverty as a result of increased financial inclusion. Furthermore, financial inclusion reduces poverty and susceptibility to poverty in rural areas more than it does in urban areas.

In Bolivia, Bangladesh, Nigeria, and Mali, Amadou (2018) investigated the influence of financial inclusion on poverty. The study used a questionnaire to learn more about the causes of poverty in Mali, as well as the needs and desires of the poor and disadvantaged. The findings of the comparative and descriptive analyses led to several recommendations, including that the agricultural sector encourages the use of credit for the purchase of agricultural machinery and inputs, that the public be educated about and encouraged to take out agricultural loans, and that financial institutions fund agricultural operations. The agricultural industry relies on expanding agricultural acreage, promoting and encouraging agricultural machinery imports, facilitating agricultural product exports, and boosting agricultural product processing. Finally, in the education sector, it is critical to promote inclusive education, technical and vocational education, and an increase in the number of schools in rural areas.

Hussaini & Chibuzo (2018) used the moderating influence of microfinance to investigate the effects of financial inclusion on poverty alleviation. Self-administered questionnaires were used to collect data. The questionnaire was presented to 384 respondents who were microfinance bank customers in Kebbi State, Nigeria, using standard random selection processes. The association between the variables was investigated using a Partial Least Square (PLS)-Structural Equation Modelling (SEM) approach. According to the findings, there is a clear link between financial inclusion and poverty reduction. The data also suggested that microfinance aided in the attenuation of the link between the variables evaluated. Microfinance services should be expanded to include school loans, technical assistance loans, skills training, and home appliance loans, also enhancing financial inclusion in rural areas.

In Nigeria, Lal (2018) investigated how financial inclusion affects poverty reduction. The study estimated two models using data from the World Bank's 2017 Global Findex survey for Nigeria: a Logit model and an Instrumental variable model. The dependent variable was a dummy variable called "poor," which was set to 1 if the person's "within economy income quintile" was in the bottom 40% of the income distribution, and 0 otherwise. Explanatory factors included the author's financial inclusion index, respondents' age, educational level, gender, work status, earnings, government transfers, pension, savings, and self-employment. The study

demonstrated that financial inclusion reduces household poverty in Nigeria, even after accounting for unobserved heterogeneity in the explanatory components.

The influence of financial inclusion on poverty reduction among low-income people in 35 Sub-Saharan African nations was studied by Mohammed et al (2017). The treatment effect model and propensity score matching techniques were used in the research. According to the findings, disadvantaged people who are financially active have a higher net worth and are happier than those who are not.

Donou-Adonsou & Sylvester (2016) explored the extent to which banks and microfinance institutions alleviate poverty. Instrumental variables and two-stage least squares were used to evaluate a panel of 71 developing nations from 2002 to 2011. According to the findings, which used credit to GDP as a key metric of financial growth, banks ameliorate poverty when assessed in terms of headcount ratio and poverty gap. Banks have no discernible impact on the poverty gap multiplied by two. MFIs, on the other hand, appear to have little impact on poverty, regardless of the measure used. These findings suggest that, while banks have some ability to alleviate poverty, microfinance organizations (MFIs), at least in aggregate, do not.

By concentrating on emerging Asian countries, Park & Mercado (2015) added to the current study on financial inclusion. The study's financial inclusion metric was created to evaluate the multiple macroeconomic and country-specific factors that influence the level of financial inclusion in 37 emerging Asian countries. The impact of financial inclusion on poverty and income disparities, as well as the impact of other control factors, was investigated in this study. According to the conclusions of the study, per capita income, rule of law, and demographic variables all have a significant impact on financial inclusion in emerging Asia. Furthermore, the study finds that financial participation lowers poverty and appears to lower income disparity. The findings of the study show that measures for young and elderly populations, such as pension systems, as well as a stronger rule of law, such as financial contract execution and financial regulatory scrutiny, will help to reduce income inequality.

Abraham & William (2015) looked at the impact of financial services accessibility on household climate change resilience. The study discovered that lending to rural farm households organized into savings clubs and increasing formal credit access would assist the poorest quintile of the population. On the other hand, traditional crop insurance appears to benefit only the wealthiest farmers. According to the findings, evaluating how rural farm families in underdeveloped countries are organized may be necessary to determine how to assist them in coping with or adapting to covariate and idiosyncratic agricultural shocks in a post-2015 sustainable development framework to eradicate poverty for all. It would also be beneficial to assist governments in poorer countries in shifting away from traditional crop insurance.

Research & Methodology

Because of the study's nature, time-series data were used, despite the fact that they are only secondary data. These secondary data were gathered from publications by the Nigerian Central Bank (Annual Report) and the National Bureau of Statistics (2021). The study's reliance on secondary data, primarily from these organizations, ensures that the research is conducted with data from credible sources.

For data analysis, the researchers employed the ordinary least squares multiple regression approach. The time series' stochastic characteristics were also tested using a stationary test. The Augmented Dickey-Fuller (ADF) test is used to explore the stationarity qualities of time series data in this study.

Model specification

This study adopts Ogbeide & Igbini (2019) model, Nigerian financial inclusion and poverty alleviation. However, the focus of this study was on how gender-based financial inclusion helps to alleviate poverty in Nigeria. The study will estimate one model to reflect the project's aims, which is to analyze the influence of financial inclusion on poverty. In the model, the following is a mathematical representation of the functional relationship between financial inclusion and poverty reduction in Nigeria:

$$PI = f(CBB, DCB, BCB, ATM)$$

Econometrically, the functional relationship is written as in an equation form as:

$$PI = \beta_0 + \beta_1 CBB + \beta_2 DCB + \beta_3 BCB + \mu$$

Where:

PI = Poverty index

CBB = Commercial banks branches (per 100,000 of adult)

DCB = Deposit with commercial banks (per 1000 adult)

BCB = Borrowers of commercial banks

CBB, DCB and BCB represent proxy variables for financial inclusion

β_0 = estimated intercept or constant term

$\beta_1 - \beta_3$ = estimated parameters coefficient with respective exogenous variable

μ = stochastic error term

Result and Discussions

This aspect of the study dwells on the analysis of the data generated and the discussion of findings.

Descriptive statistics

The mean, minimum and maximum values, standard deviation, skewness, kurtosis, and the Jarque - Bera test for the data are all summarized in the Table 1. These descriptive statistics provide a historical context for our data's behavior. It explains the nature of the data from the empirical analysis of the variables that were employed in the study.

Table 1: Descriptive Statistics

	PI	CBB	DCB	BCB
Mean	4.353699	1.628072	8.461915	10.76626
Median	4.350091	1.580734	9.555213	10.24709
Maximum	4.465908	1.880991	12.69218	13.80403
Minimum	4.262680	1.329724	2.981796	9.098537
Std. Dev.	0.064870	0.167915	3.370410	1.417359
Skewness	0.203711	0.102373	-0.591360	1.054427
Kurtosis	1.792156	1.770764	1.992104	2.803225
Jarque-Bera	4.874639	4.658830	7.244041	13.45796
Probability	0.004395	0.005353	0.026729	0.001196
Sum	313.4664	117.2212	609.2579	775.1711
Sum Sq. Dev.	0.298777	2.001878	806.5360	142.6324
Observations	72	72	72	72

Source: Authors' Computation 2021

The discrepancy between the minimum and maximum values for the variables under investigation appears to indicate significant variability. The standard deviation measures the dispersion of our variables from their mean values. Further, the variables are all positively skewed except DCB while the peakedness of the series are composed of both platykurtic and leptokurtic series.

Table 2: Unit root test

Variables	ADF	Order of Integration
PI	-8.2466	I
BCB	-8.2752	I
CBB	-8.2489	I
BCB	-8.2614	I

Source: Authors' Computation 2021

The above revealed the stationary level of the variables used for analysis. All the variables are stationary at the first difference since the ADF value is greater than the critical value at 1% and 5%.

Table 3: Unrestricted Cointegration Rank Test (Trace)

Hypothesized	Trace	0.05		
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None	0.231626	35.41739	47.85613	0.4262
At most 1	0.127897	17.23736	29.79707	0.6225
At most 2	0.078483	7.794902	15.49471	0.4876
At most 3	0.030753	2.155261	3.841466	0.1421

Source: Authors' Computation 2021

At first, all of the variables utilized in the analysis differed in terms of their level of integration. An analysis of Johansen co-integration is performed. The trace statistic in the above Table is less than the critical value of 5%, indicating that there is no co-integration between the variables. For the analysis, a VAR estimate is used.

Table 4: Vector Autoregressive Estimate

	PI	BCB	CBB	DCB
PI(-1)	0.933733 (0.12937) [7.21740]	0.377578 (3.55514) [0.10621]	-0.024295 (0.26381) [-0.09209]	0.223902 (4.86129) [0.04606]
PI(-2)	-0.042683 (0.13373) [-0.31916]	2.891385 (3.67499) [0.78677]	-0.015984 (0.27270) [-0.05861]	-0.047228 (5.02518) [-0.00940]
BCB(-1)	0.000701 (0.00476) [0.14727]	0.864811 (0.13082) [6.61092]	-0.002890 (0.00971) [-0.29768]	0.052078 (0.17888) [0.29114]
BCB(-2)	0.000492 (0.00485) [0.10140]	-0.114227 (0.13327) [-0.85712]	-0.001622 (0.00989) [-0.16401]	0.201876 (0.18223) [1.10781]
CBB(-1)	-0.004777 (0.06337) [-0.07537]	-0.317261 (1.74147) [-0.18218]	0.946270 (0.12922) [7.32267]	-0.104919 (2.38128) [-0.04406]
CBB(-2)	0.024617 (0.06465) [0.38075]	-0.514203 (1.77665) [-0.28942]	-0.033526 (0.13184) [-0.25430]	-1.389073 (2.42939) [-0.57178]
DCB(-1)	0.000369 (0.00347) [0.10646]	0.027386 (0.09535) [0.28723]	-9.16E-05 (0.00708) [-0.01295]	0.858978 (0.13038) [6.58848]
DCB(-2)	-0.000801 (0.00342) [-0.23432]	-0.068392 (0.09395) [-0.72798]	-0.002947 (0.00697) [-0.42269]	0.049751 (0.12846) [0.38728]
C	0.432764 (0.25807) [1.67694]	-9.816819 (7.09164) [-1.38428]	0.390790 (0.52623) [0.74262]	-0.244508 (9.69710) [-0.02521]
R-squared	0.844425	0.754099	0.906397	0.921690
Adj. R-squared	0.824022	0.721850	0.894121	0.911420
Sum sq. resids	0.044583	33.66652	0.185378	62.94890
S.E. equation	0.027035	0.742907	0.055127	1.015849
F-statistic	41.38676	23.38341	73.83596	89.74423
Log likelihood	158.2357	-73.70600	108.3592	-95.60968
Akaike AIC	-4.263877	2.363028	-2.838834	2.988848
Schwarz SC	-3.974785	2.652121	-2.549741	3.277940
Mean dependent	4.355900	10.81391	1.630987	8.429211
S.D. dependent	0.064445	1.408622	0.169418	3.413190

Source: Authors' Computation 202

The purpose of this research was to see how financial inclusion in Nigeria affects gender-based poverty. This research looked at the impact of financial inclusion on poverty reduction among Nigerians. Commercial bank branches, deposits with commercial banks, and borrowers from commercial banks are the financial inclusion proxy variables. The poverty index is a proxy for poverty reduction. The World Development Indicator (WDI) and the CBN Statistical Bulletin (2021) provided the data for this study. The period under consideration is 2002 to 2019.

In the regression table above, two proxies of financial inclusion have a negative impact on poverty, showing that increasing financial inclusion will reduce poverty in Nigeria. Programmes and policies for women's financial inclusion must be adopted by the Nigerian government in order to address poverty.

Furthermore, from the empirical result above, the individual coefficient suggests that a change in commercial bank branches per 100,000 adults has a favorable influence on poverty reduction. A unit change in commercial bank depositors per 1000 individuals has a negative impact on poverty reduction. While commercial bank borrowers per 1000 individuals have a negative impact on poverty reduction, they have a positive impact on poverty. The f-statistic shows the overall effect of the variables on the dependent variable which is significant at all confident level. The R-square is also high which at 84% meaning any variation in the poverty index is explained by the explanatory variables while the remaining 16% is explained by other factors that are not captured by the model.

Conclusion

Because of its relevance in decreasing poverty and fostering overall economic growth and development, scholars and policymakers have continued to focus on the influence of financial inclusion on poverty and development. The impact of financial inclusion on gender-related poverty reduction in Nigeria was explored in this study. According to the study, financial inclusion reduces household

poverty in Nigeria. In addition, the study found that having access to credit through the financial institution was critical in reducing poverty in Nigeria during the study period. As a result, the study suggested the following policy.

Adoption of rule-of-law measures, such as contract enforcement and financial regulatory oversight, leads to greater financial inclusion and a reduction in poverty and income disparities, notably between men and women. Financial inclusion's benefits must be widely disseminated, especially in rural areas, by fostering financial literacy among the poor through education, advertising, and traditional institutions. Governments and banking institutions should work together to design regulations that encourage bankers to expand its presence in rural areas and offer financial products tailored to the poor, thereby boosting poor people's access to financial services. By rewarding financial institutions that promote self-owned businesses and medium - sized enterprises, credit constraints for self-employed people and entrepreneurs will be eliminated.

More studies on the effects of political, economic, social, technological, legal, and environmental issues on poverty should be conducted in the future.

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