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WOMEN FINANCIAL INCLUSION AND SUSTAINABLE DEVELOPMENT IN NIGERIA

Bamidele, Comfort Olaitan, &Folayan, Oluwadare David
Department of Accountancy, Osun State College of Technology, Esa-Oke
Corresponding Author: dominionionpeace123@gmail.com, Number 08066870415

Abstract
This study examined the effect of women financial inclusion on sustainable development in Nigeria for the period 1990-2022. Specifically, the study aimed to investigate the long-run relationship between women financial inclusion and sustainable development in Nigeria. The source of data for the study was secondary. To investigate the objective, Autoregressive Distributed Lag (ARDL) was adopted for the study. The resource of the ARDL revealed that there was a positive long-run relationship between women financial inclusion and sustainable development in Nigeria but not significant. The result further showed that poverty, exchange rate, inflation rate, and women's unemployment rate adversely affected sustainable development. It was discovered that bank credit to women entrepreneurs contributed to sustainable development in Nigeria. The study concluded that women financial inclusion did not enhance sustainable development.
Keywords: Women Financial Inclusion, financial Exclusion, Poverty, Bank Credit, Inflation

1. Introduction

The challenges of inaccessibility of financial services to the majority of women in Nigeria have continued to deprive the country of meaningful development that tricks down to the most vulnerable in society. The effect of this has been increasing poverty rate, unemployment, malnutrition, gender inequality, income inequality, and high level of illiteracy among women in Nigeria. Akomolafe and Folorunsho (2019) argued that the consequences of the inability of a substantial number of women in Nigeria to enjoy sustainable financial services could cause a reduction in life expectant, an increase in the poverty rate, and a decrease in the capacity of women to participate and contribute their quotas to economic activities in Nigeria, thus, failure of the country to attain improve sustainable development among women in Nigeria. To this end, Okorie (2020) pointed out that the quality of women in a society determines greatly the extent a country has achieved its sustainable development goal. Adekanye (2017) stated that one of the parameters for adjudging the extent a country has gone in achieving get sustainable development goals is the number of women that get access to financial services. Thus, in this sense, over 20 million women in Nigeria, are still unbanked as a result of unavailability of financial services in their domains (United National Organization, 2019). This scenario has deprived many of the women of the benefits of having unhindered access to financial services such as access to loans and advances, access to economic savings, and access to financial tools that make banking services reach the doorstep of the women, thus, making Nigeria not to be able to attain sustainable development that enhances the economic status of the women.

Sustainable development is a development that is beneficial to the most vulnerable of women in society. This shows that with sustainable development women's accessibility to financial inclusion improves, thus, enhancing the economic and social status of the women as a result of access to financial instrumentality such as loans and advances that increase the economic, social, and business status of the women. Akinlo (2020) argued that with women's accessibility to financial instrumentality, better change in economic status, educational status, social status, poverty status, and reduction income occur, thus, facilitating the attainment of sustainable development in Nigeria in this regard. But the problem is that an adequate number of women in rural areas in Nigeria are still far from enjoying financial services due to the lack of functioning Deposit Money Banks in their

communities. Even those that enjoy the services are only offered once in a while services by DMBs and other microfinance within their areas, thus, making financial inclusion difficult for these set of women. The resultant effect of this was an increase in the poverty rate due to a lack of accessibility to finance, thus, creating economic and social embarrassment for the women. This endangers the attainment of sustainable development in Nigeria. With this in mind, unemployment, underemployment, income inequality, and social and economic injustice became the daily scenario for women.

The works of Adekanye (2017), Ashiru (2018), Aknlo (2018), and Akomolafe and Folorunsho (2019) found a positive relationship between women's financial inclusion and sustainable development in Nigeria. Oguntade and Omoniyi (2018), Olorundare (2018), and Pius and Fashina (2020) found negative effects of women's financial inclusion women sustainable development in Nigeria. All the studies used questionnaires to address the problem raised, failed to incorporate the variable of employment among women which is an important parameter for ascertaining the extent Nigeria has gone in achieving sustainable development, and used chi-square methods that might provide reasonable inference for the studies. This current study intends to address the gaps in past works by the inclusion of employment, with the use of secondary data and the aid of the Autoregressive distributed lag (ARDL) mechanism to address the gap in the past studies.

On this premise, the board objective of the study is to examine the effect of women's financial inclusion on sustainable development in Nigeria for the period 1990-2022. Specifically, the study aims to evaluate the long-run relationship between women's financial; inclusion and sustainable development in Nigeria. To investigate the objective, the paper is divided into five sections, namely, introduction, literature review, methodology, result and discussion, and conclusions and recommendations.

2. Literature Review

This section focuses on the review of literature under three sections, namely, conceptual, theoretical, and empirical review of literature.

Conceptual review

Meaning and Definition of Women Financial Inclusion

Women's financial inclusion is defined as the integration of women into financial services provided by formal financial institutions (Akinlo, 2020). Akintunde and Ojo (2018) defined women's financial inclusion as the accessibility of women to financial services. The authors continued by arguing that women's financial inclusion includes but is not limited to access to financial loans and advances, access to online banking, access to enjoy electronic banking, and others. To this end, Olagunju (2020) defined women's financial inclusion as the accessibility of financial services to the most vulnerable women in society. Thus, in this sense, financial inclusion may be said to be around inclusive if women in rural areas in Nigeria can get access to formal financial services provided by financial institutions in Nigeria. Akinlo and Ojo (2019) opined that the failure of financial institutions in Nigeria to extend financial services to most women in rural areas can deprive this category of the populace's essential sustainable development. The consequence of this is a high rate of poverty, lack of reliable income, and increase social and economic injustice may be the order of the day among these women. Ogunlade and Ashiru (2021) defined women financial inclusion as the availability of banking services to the most vulnerable of women in society. In this sense, financial services are said to be women-inclusive when it is accessible to most women in society. The study may like to adopt the definition given by Akintunde and Ojo (2018) that sees women financial inclusion as the accessibility of women to financial services in a society.

Effect of Financial Inclusion

To enable us to gain insight into the impact of financial inclusion on the economy, understanding the role women play at the microeconomic level i.e. household, as well as the importance of providing better financial products and services for women (in their daily lives within the home) is fundamental. Some researchers have studied these gender effects over the years, and an example is a

study performed by Swamy (2014); Swamy studied the impact of financial inclusion on households, and to perform this study, Swamy employed the difference-in-difference estimator approach with Panel Least Squares and Generalized Methods of Moments using standard errors for a robust analysis; the results showed that the impact of financial inclusion was significantly higher in women than in men (8.40% and 3.97% respectively). Studies have been put forward to verify the impact of women's income on the household. Afridi et al., (2012); Kafle, (2017); Siddik, (2017), and Koomson & Danquah, (2021) further elucidate the role women who control or have access to finance play in providing education and well-being to their children and wards in Bangladesh, Ghana, India, Zambia, and Tanzania.

Barriers to Financial Inclusion and Economic Empowerment for Nigerian Women in Poverty Reduction

These barriers include the prevalence of the patriarchal system in the country, the peculiarity of the regional geographic divide that affects the level of exposure to financial offerings, low-income levels further sustained by gender roles and social norms, and poor education and financial literacy. It has been deduced that these factors when resolved or improved are believed to be capable of closing the FIGG in Nigeria. On the other hand, investigations have called our attention to the various components that could potentially drive an increased FI to result in the economic empowerment of women in Nigeria and around the world. financial exclusion means patriarchy, gender roles & cultural norms within a geographical location, the income, level of education, and financial literacy barriers to the financial inclusion of Nigerian women resolved barriers financial inclusion account ownership saving loan/microfinance digital banking fin indicators researched to potentially influence the economic empowerment of women economic empowerment financial literacy (Onukogu, 2021).

Sustainable Development Goals (SDGs)

The Sustainable Development Goals (SDGs) seek to realize fully, human rights and empower women and girls through equality. The SDGs envisage an equal world where legal, social, and economic barriers to women's empowerment are removed. While acknowledging the effect of women's equality and empowerment as a crucial element in achieving its goals and targets, it encourages initiatives geared at bridging the gender gap; therefore, SDG Goal 5 (Achieve gender equality and empower all women and girls) is key to national progress. Goal 5 further seeks a complete end to all forms of violence, discrimination, and harmful cultural practices against women and the promotion of women in leadership, use of technology, gender equality, rights to economic resources and financial services, inheritance, control over land, and natural resources (in line with the national law).

Similarly, Nigeria as a member state of the United Nations is obliged to comply with the provisions of the United Nations Security Council Resolution 1325 (2000) and the SDGs. Narrowing it all down, these frameworks set the international fundamentals for financial inclusion, which is hinged on women's emancipation, elimination of sociocultural barriers, and removal of institutional blocks limiting women from social and economic equality which are the drivers of financial inclusion. Unfortunately, after over 30 years of ratifying the CEDAW and 20 years of consenting to the SDGs, Nigeria still sees a significant lag in the achievement of women's rights, when compared to other signatories of these frameworks (WEF, 2021). In the WEF Global Gender Gap Index ranking, Nigeria was ranked 136 out of 156 countries, coming after the likes of Togo, Guinea, and Malawi, which are considered worse countries in a political and economic sense. Nigeria was ranked 78, 146, and 149 on economic participation and opportunity, educational attainment, and political empowerment respectively (WEF, 2021).

Within Africa, some regional financial inclusion frameworks are currently utilized, such as the African Financial Inclusion Policy Initiative (AfPI) and the African Development Bank framework (AfDB), which focuses on the propagation of FI in Africa through policies, programs, and initiatives

that can increase the regional drive towards a reduction in the FIGG in Africa; while the African Development Bank framework advocates for growth and strengthening of African countries through the inclusion of the financially underserved population especially women (AfDB, 2021; AfPI, 2021).

Relationship between Women Financial Inclusion and Sustainable Development in Nigeria

The relevance of women's financial inclusion in sustainable development cannot be underestimated. Essentially, an increase in the number of women that can get access to financial services may reduce the poverty rate, enhance income equality, improve employment, improve women empowerment, and sustain a meaningful living for women in Nigeria. To this end, Ogunmodede (2020) opined that access of women to financial services may improve women empowerment and enhance women contribution to the achievement of the sustainable development goals in Nigeria. Women financial inclusion increases women access to financial benefits and if appropriately utilized in businesses and other entrepreneurial endeavours may reduce the poverty rate, increase economic and social status and enhance the standard of living of the women in Nigeria, thus, contributing effectively to sustainable development in Nigeria. Akinteju (2019) cited in Salius (2021) argued that the aim of sustainable development goal in relation to financial inclusion is to ensure that all bankable women benefit from the financial services provided by banks in Nigeria, which in turn contributed to their economic and social well-being. Ojo (2019) revealed that there is a positive relationship between women financial inclusion and sustainable development. This is because as the benefits of financial services are tricked down to the most vulnerable of women in society, sustainable development must have been realized. Thus, in this sense, sustainable development is achieved if poverty rate, income inequality, lack of empowerment, poor standard of living, high illiteracy rate, and unemployment be a thing of the past among women in Nigeria. Therefore, financial institutions in Nigeria must ensure that the benefits of financial services the banks provide can be accessed by women that use their services while other women outside the financial services must be persuaded and encouraged to use the banking services for their financial transactions and safe guiding of their wealth not needed now.

Theoretical Framework

This study is anchored on the Systems theory of financial inclusion. According to Ozili (2020), the systems theory of financial inclusion states that financial inclusion outcomes are achieved through the existing sub-systems on which financial inclusion rely on and that greater financial inclusion will have positive benefits for the systems it relies on. A significant change in a sub-system (one part of the system) can significantly affect the expected financial inclusion outcome. For instance, imposing regulations on economic agents and suppliers of financial services can align their interests with that of the users of basic financial services, and can compel economic agents and suppliers of financial services to offer affordable and quality financial services to users within defined rules that protect users of financial services from exploitation and price discrimination. In line with this theory, the rural communities will be financially included if the financial regulatory authorities in Nigeria will increase the loan-to-deposit ratio of commercial and Microfinance banks' loans to the rural populace.

Empirical Review

Okafor et al., (2020) investigated the impact of various factors that could impede financial inclusion in Nigeria and discovered from their research that the first and most prominent factor was low/inconsistent income level. These findings were in harmony with that of Allen et al., (2016) who conducted worldwide research on the barriers to ownership of accounts. The results of their findings disclosed that about 66% of the adult population who have no formal accounts have pointed to low income and poor earnings as the reason why they do not need an account. Research has shown that the income levels of adults have a direct relationship with their chances of being financially excluded. Low-income earners around the globe typically constitute single parents, people with disabilities, people living on benefits, and unemployed persons; and their income level makes them unattractive to bankers, and uninterested in seeking financial services.

Honohan (2007) tested the significance of his financial access indicator in reducing income equality. His results show that higher financial access significantly reduces income inequality as measured by the Gini coefficient. However, the link between the two variables depends on which specification is used, i.e., when the access variable is included on its own and/or includes a financial depth measure, the results are significant, but the same does not hold when per capita income and dummy variables are included.

Honohan (2007 and 2008) constructed a financial access indicator that captures the fraction of the adult population in a given economy with access to formal financial intermediaries. The composite financial access indicator was constructed using household survey data for economies with available data on financial access. For those without household surveys on financial access, the indicator was derived using information on bank account numbers and GDP per capita. The data set was constructed as a cross-section series using the most recent data as the reference year, which varies across economies. However, Hoonah's (2007 and 2008) measure provides a snapshot of financial inclusion and might not be applicable for understanding changes over time and across economies.

3. Methodology

This study hinged on the system theory of financial inclusion Ozili (2020). Ozili (2020) argued that the system theory of financial inclusion was based on the benefits the financial services might provide for the users. Thus, in this sense, Akinteju (2021) stated that the users of financial services must deprive financial benefits that might uplift them from the danger of poverty to better economic status by using financial services. Thus, this study covers the period 1990-2022 to be able to meaningfully investigate the objective of the study. the period is chosen based on the fact that it was in the early 90s that the Nigerian government started putting a policy in place on how to address women financial exclusion in Nigeria, till now the country has not achieved must in this regard. The study used secondary data sourced from the Central Bank of Nigeria, the Ministry of Women Affairs, Non-Government Organizations on women empowerment, and the National Bureau of Statistics. Furthermore, the study used both descriptive and econometric statistics of Auto-regressive Distributed Lag (ARDL). The Autoregressive Distributed Lag (ARDL) was adopted for the study because it has the advantage of working with relatively small data, unlike the Vector error correction mechanism. Thus, to capture the long-run relationship between women financial inclusion and sustainable development the need to deploy ARDL becomes essential.

Model Specification

The model for this study follows the work of Ozili (2020) and Akinteju (2021) but with slight medication. Functionally, the model is stated as;

$$SDEV = f(WFI, POV, BCWE, INF, EXR, WUNEMP) \quad (3.1)$$

In mathematical form, the functional equation in 3.1 is redefined as;

$$SDEV = \beta_0+\beta_1 WFI+\beta_2 POV+\beta_3 BCWE+B_4 INF++\beta_5 EXR+\beta_6 WUNEMP+\mu \quad (3.2)$$

Where,

SDEV= Sustainable Development proxy as per capita income

WFI = Women Financial Inclusion proxy as the number of women that use financial services in Nigeria.

POV= Poverty rate

BCWE= Banks Credit to Women Entrepreneurs

INF= Inflation

EXR= Exchange Rate

WUNEMP= Women Unemployment Rate

Also, $\beta 0$ = Intercept or Constant term and $\beta 1$-$\beta 6$ = Estimated Regression Parameters.

In addition, μ= Error term

A Priori Expectation

A priori expectation for the model was that; $\beta_1>0$, $\beta_2<0$, $\beta_3>0$, $\beta_4<0$, $\beta_5<0$ and β_6

4. Results and Discussion

Table 1 Descriptive Result

Descriptive Statistics	SDEV	WFI	POV	BCWE	WUNEMP	INF	EXR
Mean	256.3719	2398806.	90329.69	229046.8	3.830000	19.05392	141.0393
Median	275.6300	221600.0	42802.70	78943.67	4.000000	15.11819	96.88000
Maximum	546.6800	1365432	786543.9	866689.0	4.000000	59.46155	450.5600
Minimum	33.83000	7260.800	3746.900	12274.80	3.000000	8.726837	2.960000
Std. Dev.	175.5980	4574523.	199435.5	276672.0	0.297546	11.71206	138.5446
Skewness	0.073573	1.654711	3.144293	1.217199	-1.639130	2.072915	1.459090
Kurtosis	1.447462	3.843054	11.15617	2.988883	4.708775	7.083658	3.578805
Jarque-Bera	2.736029	0.126790	1.326782	2.667223	2.111271	38.09719	2.957133
Probability	0.254612	0.886745	0.546320	0.264320	0.302420	0.000000	0.243214
Sum	6922.040	6476776	2438902.	6184264.	61.28000	514.4560	3808.060
Sum Sq. Dev.	801701.4	5.445614	1.03E+12	1.99E+12	1.328000	3566.481	499059.9
Observation	33	33	33	33	33	33	33

Source: Researcher's Computation, 2023

Table 1 presented the result of the descriptive statistics obtained for the parameters of the study. Looking at the result in the table, it was found that all the variables of the study except inflation were normal and might exert a significant influence on the variable of sustainable development. This inferred was based on the fact that the p-values of the Jarque-Bera statistics computed for the variables were greater than the critical value of 5% except the variable of inflation which had a p-value of 0.0000 that was less than the critical value of 5% showing that inflation was significantly high in Nigeria, thus, impeding the capacity of the women in Nigeria to make use of financial services due hyper increasing the prices of goods needed for survival.

Result of the Diagnostics Test

Due to the presence of spurious values in time series data, there was the need to filter out the unit root test to make the data effective for computation. This section presented the result of the unit root test and cointegration test obtained for the study.

Table 2 ADF Unit Root Test

Variable	Level		1st Difference		Order of Integration
	ADF Stat.	P-value	ADF Stat.	P-value	
SDEV	-0.825673	0.7949	-3.953668	0.0230	I(1)
WFI	-0.792926	0.8045	-5.099436	0.0004	I(1)
POV	2.918931	1.0000	-6.411563	0.0000	I(1)
BCWE	-1.753000	0.3942	-3.899829	0.0067	I(1)
WUNEMP	-4.847998	0.0053	-	-	I(0)
INF	-2.532668	0.1192	-7.350503	0.0000	I(1)
EXR	-0.447252	0.9812	-3.494515	0.0168	I(1)

Source: Researcher's computation, 2023 (E-view 10)

Table 2 presented the result of the unit root test computed for the variables of the study. From the result in the table, it was found that all the variables of the study were freed from the unit root problem at 1st difference except the variable of women unemployment rate which was stationary at level. This assertion was premised on the fact that the variables of SDEV, WFI, POV, BCWE, INF, and EXR were not stationary at levels because the p-values of the ADF statistics obtained for the variables at the level of 0.7949, 0.8045, 1.0000, 0.3942, 0.1192 and 0.9812 were greater than the critical value of 5%. It was discovered that SDEV, WFI, POV, BCWE, INF, and EXR were stationary at the first difference since the p-values of the Augmented Dickey-Fuller statistics computed for the variables at 1st difference were less than the critical value of 5%. This implied that the variable was of integration of order I(1). More so, it was found that WUNEMP was stationary at the level since the p-value of the ADF statistics calculated for the test variable of 0.0053 was less than the critical value of 5%, thus, showing that the variable was of integration of order I(0). The status of the order of integration for the variables revealed that Autoregressive Distributed Lag (ARDL) could be achieved to achieve the objectives of the study.

VAR Lag Order Selection

In using the Auto-Regressive Distribution Lag the order of lag selection must be determined.

Table 3 VAR Lag Order Selection Criteria

Model Selection Criteria Table

Dependent Variable: GDP

Date: 17/07/23 Time: 11:48

Sample: 1990 2022

Included observations: 30

Model	LogL	AIC*	BIC	HQ	Adj. R-sq	Specification
1	-70.675838	10.084480 *	10.567348 *	10.109207	0.894529	ARDL(1, 0, 0, 0, 0, 0, 0, 0, 0)

Source: Researcher's Computation, 2023 (E-view 10)

* indicates lag order selected by the criterion

LR: sequential modified LR test statistic (each test at 5% level)

FPE: Final prediction error

AIC: Akaike information criterion

SC: Schwarz information criterion

HQ: Hannan-Quinn information criterion

The desired level of lag length of the variables included in the ARDL model with a critical band of 5% significant level, was selected based on the AIC, BIC, and HQ, indicating an optimal lag length of one (1) as presented in table 3 with ADL specification of (1, 0, 0, 0, 0,0, 0, 0, 0).

Long Run Relationship between Women Financial Inclusion and Sustainable Development

In investigating the objective of a long-run relationship between VAT and economic growth there was the need to check for the existence of the long-run relationship through the Auto-Regressive Distribution Lag Bound test otherwise called ARDL Cointegration Bound Test. Table 4 presented the result of the ARDL Bound Test

Table 4 ARDL Co-integrating Bound Test

Test statistics	**Value**	**Lag**	**Critical level**	**Bound Critical Values**	
				Lower Bound I(0)	**Upper Bound I(1)**
F-statistics	4.814787	**1**	10%	1.95	3.06
			5%	2.22	3.39
			2.5%	2.48	3.7
			1%	2.79	4.1

Source: Researcher's Computation, 2023 (E-view 10)

Table 4 presents the result of the long-run test between the dependent variable sustainable development and lists of independent variables of; WFC, POV, BCWE, WUNEMP, INF, and EXR. The essence of the test was to check whether the null hypothesis of no long-run relationship between sustainable development and women's financial inclusion hold. Thus, looking at the result in the table it was found that the F-statistics computed for the test of 4.814787 was greater than the critical values of 5% at lower bound of 2.48 and upper bound of 3.70. As a result of this, the null hypothesis of no long-run relationship between women financial inclusion and sustainable development was rejected. It was reasonable to state that there was a long-run dynamic relationship between the dependent and independent variables of the study. As a result of this the need to carry out the long ARDL to confirm the truthfulness or otherwise of the specific objective of the study on the long-run relationship between women financial inclusion and sustainable development in Nigeria.

Table 5 Short-Run ARDL Result
Dependent Variable = Sustainable Development (Proxy as Per capita Income obtained from Gini Coefficient)
Selected Model: ARDL (1, 0, 0, 0, 0, 0, 0, 0, 0, 0)

Variable	Coefficient	Standard Error	T-calculated	P-value
C	135.7469	214.6735	0.632341	0.5505
SDEV(-1)	0.862134	0.263214	3.275415	0.0169
WFI	9.500206	1.180205	8.049624	0.0000
POV	-8.490605	0.519455	-16.34422	0.0000
BCWE	0.908905	6.313005	0.143973	0.9740
WUNEMP	-7.203405	1.521205	-4.735328	0.0000
INF	-6.591716	0.594119	-11.09494	0.0000
EXR	-0.103341	0.561947	-0.183898	0.8602
	OTHER	**TEST**	**STATISTICS**	
R-squared	0.957812		Mean dependent var	384.0294
AdjustedR-squared	0.894529		S.D. dependent var	100.8241
S.E. of regression	32.74388		Akaike info criterion	10.08448
Sum squared resid	6432.969		Schwarz criterion	10.56735
Log-likelihood	-70.67584		Hannan-Quinn criter.	10.10921
F-statistic	95.13552		Durbin-Watson stat	1.980321
Prob(F-statistic)	0.000000			

Source: Researcher's Computation, 2023 (E-view 10)

Table 5 presents the result of the short-run relationship between women financial inclusion and sustainable development in Nigeria. Looking critically, at the result, it was found that there was a significant short-run relationship between women financial inclusion and sustainable development in Nigeria. This inference was premised on the fact that the coefficient of determination obtained for the variable of 0.96 revealed that approximately 96% of women financial inclusion might have

caused sustainable development in Nigeria. More so, the p-value of the F-statistics computed for the test of 0.00000 was less than the critical value of 5% with a significant F-statistics value of 95.14. This implied that the null hypothesis which stated that women financial inclusion did not affect sustainable development in Nigeria was rejected. It was safe to assert that women financial inclusion had a significant effect on sustainable development in Nigeria. The results of the information criteria showed that women financial inclusion provided better information on sustainable development in Nigeria. Also, the Durbin-Watson statistics calculated for the test of 1.980321 showed evidence of no auto-correlation among the variables of the study. As a result of this, adequate inclusion of women in financial services in Nigeria might bring about meaningful sustainable development for women in Nigeria.

Table 6 ARDL Long Run Coefficients of ARDL Result
Dependent variable = Sustainable Development (Proxy as Per Capita Income)

Variable	Coefficients	Standard Error	T-calculated	P-Value
C	0.632374	0.730293	0.521872	0.6205
WFI	0.003069	0.014820	0.207085	0.5640
POV	-0.006616	0.001376	-4.808140	0.0006
BCWE	0.001138	0.000529	2.151229	0.0434
UNEMP	-0.004387	0.001198	-3.661937	0.0021
INF	-0.812646	0.080835	-10.05315	0.0000
EXR	-0.749577	0.036780	-20.38002	0.0000

Source: Researcher's Computation, 2023 (E-view 10)

Table 6 presents the long-run result of the ARDL used to investigate the long-run relationship between women financial inclusion and sustainable development in Nigeria. Looking critically at the result in the table, it was found that the relationship between women financial inclusion (WFI) and sustainable development was positive but not significant. This inference was premised on the fact that the regression coefficient computed for the variable of WFI of 0.003 was positive with an insignificant t-statistics value of 0.21 that a p-value of 0.5640 that was greater than the critical value of 5%. The economic implication of this was that the number of women using or having access to financial access in Nigeria might not be enough to accelerate the expected sustainable development among these women. As a result of this high rate of poverty, income inequality, high level of unemployment, economic and social injustices, and lack of foreseeable incomes to enhance the entrepreneurial pursuit of these women were a reoccurring decimal among a substantial number of women in Nigeria. Akinteju (2020) put this in proper perspective by arguing that the failure of the government at all levels to bring the needed financial services to the door post of women in Nigeria had continued to pose a serious problem to the achievement of sustainable development goals as it related to women and girl child. As a result of this, the benefit that should accrue to the women by having undeniable access to financial services had been consistently denied them. This was noticeable in the area of financial aid through loans and advances from the banks that should uplift and enhance the entrepreneurial pursuit of the women that had been persistently denied the women due to lack of access to banking services. This complicated the problem of poverty and increased economic problems of a low standard of living, high level of illiteracy, low life expectant, and multi-dimensional poverty among these women.

More so, it was discovered from the result that the relationship between poverty and sustainable development in Nigeria was negative and significant. This assertion was based on the fact that the regression coefficient computed for the variable of POV of -0.01 was negative with a significant t-statistics value of -4.81 that had an ap–value of 0.0000 that was less than the critical value of 5%. The values implied that a 1% increase in the poverty rate among women could cause a 0.01% reduction in sustainable development. The sign of the variable of poverty was in tandem with a priori expectation,

hence, as a result, poverty might be a significant determinant of sustainable development in Nigeria. The implication of a high rate of poverty on sustainable development had never been in doubt in Nigeria. This was because, with high levels of poverty, women became incapacitated and limited in terms of contributing to income and economic activities. This lacked contribution to economic activities might drag back economic sustainability, thus, adversely affecting sustainable development in Nigeria. Women lacked productivity due to poverty-induced income was a serious impediment to sustainable development in Nigeria. This was because the inability of the women to be productive due to lack of financial aid as a result of inaccessibility to financial services might worsen their poverty level, worsen social injustice, and cause economic embarrassment and social stigma for the women. This made the achievement of sustainable development unrealizable in Nigeria.

Moreover, the relationship between bank credit to women entrepreneurs and sustainable development was found to be positive and significant. This assertion was based on the fact that the regression coefficient computed for the variable of BCWE of 0.00114 was positive with a significant t-statistics value of 2.15 that had a p-value of 0.0434 that was less than the critical value of 5%. The values showed that a 1% increase in the variable of bank credit to women entrepreneurs might cause a 0.001% increase in sustainable development in Nigeria. The sign of the variable of BCWE conformed with a priori expectation for the variable. As a result of this BCWE was a good determinant of sustainable development in Nigeria. The extension of bank facilities to women entrepreneurs could enhance the sustainable development of women. Women needed financial aid with a single-digit interest rate from banks to survive cut-throat competition from larger entrepreneurs. They required loans and advances to improve their businesses through reasonable expansion in plants, expansion in the use of better technology, and an increase in the number of staff employed. This the bank must do to encourage women's financial inclusion. More so, with judicious use of the bank credits women might enhance their income level, increase their standard of living and create employment opportunities for the teeming youths in Nigeria. Ogunmodede (2021) noted that bank credit to women entrepreneurs was one of the necessary determinants that encouraged women to safe-guide their financial resources in banks, thus, the extension of a better interest rate to these women might facilitate an adequate number of them to use financial services.

Furthermore, the result in the table revealed that there was a significant negative relationship between unemployment and sustainable development in Nigeria. This inference was based on the fact that the regression coefficient computed for the test variable of -0.0043 was negative with a significant t-statistics value of -3.66 that a p-value of 0.0021 that was less than the critical value of 5%. The values indicated that a 1% increase in the variable of unemployment might cause a 0.004% decrease in sustainable development in Nigeria. The sign of the variable of unemployment was in tandem with a priori expectation. As a result of this unemployment might be an unfavorable determinant of sustainable development. The effect of unemployment on the ability of Nigerians and the Nigerian government to achieve meaningful sustainable development had been a mirage. The high Unemployment rate had made nonsense of meaningful policy of the government, thus, making sustainable development unattainable in Nigeria. The worse hit in this case were women whose figure was put in the range of over 67% as of the last quarter of the year 2022 without meaningful jobs (UNO, 2022). Many of these women had taken up unsustainable jobs while others had been engaging in prostitution to at least get their daily meat. This seriously hampered the capacity of the women to be able to contribute successfully to economic activities, thus, reducing their economic participation in financial inclusion, poverty alleviation, production, and economic reawakening in Nigeria. The resultant effect of which sustainable development among women had become unattainable. Therefore, unemployment and sustainable development were negatively related and significant.

In addition, the relationship between inflation and sustainable development was found to be negative and significant. This inference was based on the fact that the regression coefficient computed for the variable of inflation of -0.81 was negative with a significant t-statistics value of -10.05 with a p-value

of 0.0000 less than the critical value of 5%. The regression coefficient showed that a 1% increase in the variable of inflation might cause a 0.81% decrease in sustainable development in Nigeria. The sign of the variable of inflation conformed with a priori expectation. As a result of this inflation was a determinant of sustainable development in Nigeria. Inflation eroded the capacity of women to be able to contribute meaningfully to sustainable development goals. With inflation, purchasing power of women reduced. Inflation shrieked women ability to expand their enterprises. It derails women's extension to extend employment opportunities to others due to the high cost of production. It discouraged women to transact their financial activities through banks as a result of bulk bank charges. More so, with persistent rise in the general prices of goods and services, women might find it difficult to save, thus, the need for financial services might not arise. Akinteju (2020) argued that inflation denied women the opportunity that comes from financial inclusion by exposing their financial efforts to economic unpredictability that continues to deny the women the gain of financial inclusion.

The relationship between exchange rate and sustainable development was found to be negative and significant. This assertion was premised on the fact that the regression coefficient computed for the variable of -0.75 was negative with a significant t-statistics value of -20.38 with a p-value of 0.0000 that was less than the critical value of 5%. The values showed that a 1% increase in the exchange rate might cause a 0.75% reduction in sustainable development in Nigeria. The sign of the variable of the exchange rate was in tandem with a priori expectation. As a result of this, the exchange rate was a determinant of sustainable development. The consequence of the high exchange rate on the ability of the women in Nigeria to take up financial inclusion could not be underestimated. This was because with an increase in exchange rate the capacity of women to meet the needs of their enterprises was reduced. This could negatively affect the ability of the women to procure materials needed for production particularly if the materials were not available locally. It might erode the capacity of women to expand plants and create more job opportunities, thus, reducing the contribution of women to sustainable development. Existing employees might be reduced in size for the women to be able to continue production. Innovation might not be forthcoming due to inadequate financial aid for women entrepreneurs. Therefore, exchange rates and sustainable development might become unachievable in this situation.

1. Conclusions and Recommendations

Conclusions.

This study found that women financial inclusion could improve sustainable development in Nigeria and vice-versa. On this basis, the study concluded that women financial inclusion had a significant effect on sustainable development. Moreover, there was a positive long-run relationship between women financial inclusion and sustainable development but not significant. Bank credit to women entrepreneurs and sustainable development were positive and significant. Women unemployment rate, inflation, and exchange rate adversely affected sustainable development in Nigeria. Poverty and sustainable development were negative and significantly related.

Recommendations

The following recommendations are made for the study.

- There is a need for the government in Nigeria to put in place a monetary policy that may encourage women financial inclusion in Nigeria. This may be achieved through a single-digit interest rate, lower inflation, and exchange rate.
- The various poverty alleviation of the government particularly the ones that focus on women must be redesigned to enhance the program's effectiveness. This program initiatives are found not to affect positively the women that need it. Thus, the need to redesign the programs becomes necessary.
- Bank credit to women entrepreneurs must be in single digits to encourage women financial inclusion.
- Inflation and exchange rates must be reduced by the government in Nigeria through effective monetary and fiscal policy.

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