

Impact of Financial Innovation on Sustainable Development in Nigeria

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ABSTRACT

The study evaluated the impact of financial innovation on sustainable development in Nigeria. Relying on annual time series data from the World Bank Development Indicator covering 1990 to 2021. The ARDL approach and the Vector error correction model were adopted in analyzing the data collected. Findings indicated a long-run and short-run association between financial innovation and sustainable development in Nigeria. The findings further revealed that both in the long and short run financial innovations in the financial sector positively and significantly impacted sustainable development, on the other hand, financial innovations in the monetary sector and per capita income both exerted a negative impact on sustainable development in Nigeria. Based on the findings from the study, it is recommended that more aggressive financial education using social media and radio be used to improve financial inclusion. Central Bank of Nigeria should work with financial service providers to ensure that loans are available at reasonable and flexible interest rates to support underprivileged individuals and vulnerable businesses. The operating environment of the financial service providers needs to be improved by providing basic infrastructures such as electricity, to reduce the cost of lending.

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1. INTRODUCTION

Sustainable development has been the desire of governments all over the world. It is more pronounced among the nations of the global south to meet up with their counterparts in the global north. The quest for sustainable development has given rise to concepts such as millennium and sustainable development goals, which are all hinged on strong economic advancement. It would be difficult for the contemporary economy to function effectively without efficient intermediaries in the financial systems. It is categorized among the most unique creations of modern society, which acts as an important component of the economic system. A comprehensive knowledge of the interaction among finance, innovation and growth starts with robust knowledge of the features associated with innovations (Elumah & Muritala, 2023; Mazzucato, 2013).

Financial innovation is an ingredient for growth given that such innovation facilitates the allocation of resources. It increases financial intermediation efficiency level, which is the primary objective of financial institutions, through raising the volume of products and services they offer, which

translates into matching the individual needs of savers and those of organizations demanding funds for productive purposes. In this manner, capital accumulation improves, as a result of the smooth operations of the financial system and allocated where it can be most productive hence stimulating growth (Simon & Kwak, 2012; Chou, 2007). Furthermore, it aids the formation of new businesses and provides an improved platform or means for the exchange of goods and services, leading to the creation of new financial technologies which negatively affect transaction cost, improve the returns of capital, thus increasing economic growth (Qamruzzaman, Jianguo, Jahan & Yingjun, 2021; Ahmed, Adamu & Risikat, 2018).

The discussion on the nexus between financial development and economic growth and development can trace its origin to Schumpeter (1940). Thus, suggesting financial innovation as the connection between the financial sector and sustainable development. Just as documentary evidence suggests financial innovation assists in adjusting some types of imperfections or inefficiencies existing in the market. Innovation in the financial sector performs an important role

in attaining sustainable development, social inclusion and peace, because of its capacity to stimulate social changes. It has the potential to close the competitive gap and skewed knowledge gap existing between developing and developed economies (Dimitrios & Mention 2013; Salas, 2009). Even as World Bank (2023) maintained financial innovation is critical to bridge the widening gap of developmental needs of developing economies of above \$3.9 trillion in foreign funds a year to the current fund of \$1.4trillion available.

Financial innovation is a dynamic process that involves the introduction and promotion of new and improved financial products and services, new processes and procedures, evolving nature of communication with customer and making new structures to assist financial institutions in responding to the ever-dynamic economic condition (Mention, 2011). Which is important in properly comprehending the type of financial innovation akin to the various processes of development in the area of activities, facilities, structures and interactions with a focus on actualizing set objectives (Ajide, 2016).

Financial innovation is more impactful in a free competitive market system, this informed the decision of the Nigerian government to embark on a series of reforms to liberalize the Nigerian economy. These reforms ensured that Nigeria experienced financial innovations, especially in the banking system, transiting the financial sector of Nigeria to a sophisticated technological-oriented system from the analogue one. The adoption of modern technological facilities ensured the banking sector invested heavily in expensive electronic and internet equipment and facilities, such as; Automated Teller Machines (ATM), Point of Sale (POS), mobile banking software and applications and digital databases. Thus, innovative products and swift transaction have characterized the Nigerian financial landscape (Okafor, Ezeaku, & Anyalechi, 2017; Ajide, 2016). The financial innovation has ensured the automation of the financial landscape of Nigeria, ensuring efficiency in operation, execution of contracts and development of unique products. This steady rise in financial innovation has positioned Nigeria as a financial hub in Africa.

Given the level of improvement in financial innovation experienced in Nigeria over the years, as a result of the various reforms being implemented, it was expected to increase the spate of sustainable development, but there seems to be no serious improvement in the level of sustainable development, just as poverty is on the rise, worsening economic condition, mismatch of natural and man-made capital. The level of sustainable development has not been at the desired level causing serious concern among policymakers

Furthermore, the subject has become a controversial one among academics and researchers as findings from previous researchers have produced a mixed bag of results. For instance, Chakraborty and Ray (2021); Giannellis,

Papadopoulos and Apostolakis (2019); Ajide 2016 maintained that financial development impacts positively on sustainable development, while Archer and Idun (2023); Elumah and Muritala (2023) supported a negative impact. This lack of consensus among scholars constitutes a problem.

2. LITERATURE REVIEW

2.1.1 Financial Innovation

In recent times financial innovation has dominated the financial landscape of the world. In the view of Ogbeide and Obadeyi (2023) financial innovation involves innovations in the payment system, lending practices, investment vehicles risk management tools and more. While Melnik and Yashiv (1994) described financial innovation as the introduction of new liquid assets that partially replace traditional money in agents' portfolios, technological progress in banking services that reduce the costs of transactions, and changes in the regulatory environment that facilitate transactions. It encompasses the evolving and introduction of new financial infrastructure, instruments, services and products, which includes novel funding sources, automation of procedures, processes and operations and products.

In Nigeria, the collaborative effort of the Central Bank of Nigeria, the Nigerian Communication Commission, the Nigerian stock exchange, commercial banks, financial technology companies, telecommunication companies, and mobile money operators have continued to spur financial innovation in Nigeria. All these efforts are geared towards ensuring the effective mobilization and application of funds in profitable ventures, which improved the flow of remittances and savings, adoption of blockchain and digital currency especially among the youth, thus reducing unemployment. The progress made will affect the efficiency of the entire financial system. Supporting the view that the dramatic growth of new FinTech, institutions and markets all point towards financial innovation (Hu., Zhang, & Yuan, 2018).

Previous studies have employed various indicators for financial innovation. The number of new Fintech in operations (Hu *et al.*, 2018), the volume of transactions of the payment system, (Ozurumba & Onyeiwu, 2019), the efficiency of the financial system (Ajide, 2016). The use the ratio of liquid money to narrow money that measures the depth of the financial and the ratio of monetary sector credit to the private sector to GDP was employed.

It is worthy of note that despite the potential risks associated with the advancement in financial innovations, many scholars have maintained an optimistic view about the positive impact of financial innovation in promoting sustainable development.

2.1.2 Sustainable Development

Sustainable development is a concept that does not just emphases on growth but inclusive growth. It involves designing sound policies and plans aimed at reducing poverty

without depleting the environmental resources. Various measures of Sustainable development exist, such as *per capita income*, technological development, Adjusted net savings etc. Adjusted net savings was proposed by Pearce and Atkinson (1993) and regarded a robust proxy to measure sustainable development (Qasim & Grims, 2018; Katharine, Mampite & Michael, 2002). Adjusted net savings is calculated by the World Bank as net national savings plus education expenditure minus energy depletion, mineral depletion, net forest depletion, and carbon dioxide and particulate matter (PM) emissions damage (World Bank, 2007). Since ANS captures the value change of a set of stipulated assets and also gauges or checks the balance of natural capital and human-made capital resources the present generation transmits to the next generation, thus when an economy's ANS maintains a positive trajectory, its social welfare values are believed to be on the rise, but maintaining a negative adjusted suggest an unsustainable economic development (World Bank, 2007; Katharine *et al.*, 2002) ANS is regarded as good indicator of sustainable development as it takes into cognizance the elements of financial and environmental considerations into consideration.

2.2. Theoretical Review

2.2.1. Financial Intermediation Theory

The financial intermediation theory was initially formalized by Goldsmith (1969), Shaw (1973), and McKinnon (1973), who argued that the money and capital markets component of the financial sector performs an important function in economic development. Maintaining that the varying level of economic growth witnessed by different economies is predicated on the quantity and quality of intermediation available. In the opinion of Levine (2005), the financial system can influence savings-investment decisions and growth information on investment projects, establishing effective corporate governance codes, improving risk management and diversification, efficient mobilization and allocation of funds and promoting the exchange of goods and services within the economy. For this to remain relevant, financial innovation is at its core.

2.2.2. Schumpeterian Growth Model

The Schumpeterian growth model was propounded by Schumpeter (1940). The theory stipulates that financial innovation remains an important disruption in the economic system. Stipulating that financial innovation be it in terms of new instruments, products or markets, stimulates a rise in research and development investment translating into commercial use of new technologies thus increasing economic growth. The adoption and commercialization of new instruments, institutions, or markets ensure effective mobilization and allocation of funds into productive ventures thereby reducing the cost of executing contracts and improving productivity and profit margin thus economic growth. The outcome is a result of efficiency and a new way of operations.

2.3 Empirical Review

Elumah and Muritala (2023) evaluated the influence of financial innovation on sustainable development in nine selected African countries relying on data from 2006 to 2020. Relevant data was sourced from the World Bank Development Indicators and was analysed using GMM panel. Findings suggested that financial sector innovation exerted a negative on sustainable development, while banking sector innovation and capital market innovation influenced sustainable development positively. Government should evolve policies innovative that will sustain innovation in the banking sector and capital market that facilitate the proper functioning of the economy to ensure.

Archer and Idun (2023) assessed the impact of banks on sustainable development in Africa. Collecting data from 34 African nations from 2010 to 2020 and adopting the Two-Step System Generalised Method of Moments (2SSGMM) technique in analysing the data collected. Results suggested that financial outreach negatively impacted social sustainability and carbon dioxide emissions, while it positively influenced economic sustainability. Furthermore, financial innovation negatively and significantly impacted sustainable development in Africa.

The study recommended that financial inclusion should be pursued to increase participants in the financial system.

Shapoval (2021) evaluated the association among financial innovation, financial depth, and economic growth, using data from data from 22 countries from 22 countries from OCED from 2007to2018. The panel data collected was analysed with panel data regression with focus on fixed effect model. Findings suggested that financial innovation and financial depth exerted a positive and significant impact on economic growth

Ahmed, Adamu, and Risikat (2021) investigated the impact of financial innovation on the Nigerian economy. Relying on quarterly and monthly data for the period covering 2010 to 2020, which was analysed the using ARDL and the polynomial distributed lag mixed data sampling (PDL MIDAS) The ARDL and PDL MIDAS results revealed that both in the long and short run, mobile payment positively and significantly impacted economic growth, while the Nigerian economy was negatively impacted by both web and POS transactions. It recommended a improvement on the infrastructure that support innovation.

Analysing data collected using regression analysis, Chakraborty and Ray (2021) evaluated how financial innovation impacted economic growth of India. Findings suggested that financial innovation positively and significantly influenced the economic growth of India. Incentives to expand FinTech companies should be encouraged was advocated.

Qamruzzaman, *et al.*, (2021) investigated the association between financial innovation, human capital development, and economic growth in six South Asia for the period 1981-

2016. The data sourced were analysed using the ARDL and Granger-causality under the error correction model (ECM) and the results suggested that there is a long-run association among financial innovation, human capital development, and economic growth in the countries. Also, in the long-run and short-run FI and HCD exerted a significantly positive impact on economic growth. While the Granger-causality test showed bidirectional causality between FI and economic growth, HCD and economic growth. The study is of the view that policies that encourage financial inclusion should be maintained, so as to increase demand for innovative financial product.

Ozurumba and Onyeiwu (2019) investigated the impact of FI on Nigerian economic growth, relying on data for the period 2010 to 2018 and sourced from the Central Bank of Nigeria Statistical Bulletin, the Nigeria Interbank Settlement System and the National Bureau of Statistics Annual report. In analysing the data collected, Johanson Co-integration test and regression analysis were utilized. Findings revealed that NIBSS transactions and Agent banking positively but insignificantly influenced Nigerian economic growth, while ATM transactions negatively and significantly influenced economic growth. The study advocated for a robust internet infrastructure that supports an efficient financial innovation. Based on evidence from India for the period between 2011 to 2019, Ravikumar, Suresha, Sriram, and Rajesh (2019) evaluated the influence of digital payments on economic growth. Collected data were analysed using the ordinary least squares (OLS), ARDL cointegration approach. Findings revealed that retail electronic clearing significantly impacted real GDP, while Real Time Gross Settlement, Clearing Corporation of India, operated system, paper clearing, clearing, card payments, and Prepaid Payment Instruments did not impact the real GDP of India.

Giannellis *et al.*, (2019) evaluated the impact of FI on economic growth. Relying on data sourced from European countries, which was analysed using the dynamic panel technique, findings suggest that FI exerted a positively significant impact on economic growth.

Ekeagwu (2017) examined the impact of banking sector development and market power on economic development in Nigeria from 1980-2015. The study adopted the OLS estimation technique of multiple regression analysis and ECM model using data from CBN, NSE, World Bank and various deposit banks' financial reports. The results indicated that market power measured by five commercial bank aggregate concentration ratio (CBACR_5) positively impacted banking sector development while banking sector development impacted economic development positively and significantly.

Ajide (2016) investigated the influence of FI on sustainable development focusing on data from eight selected West African countries. Utilizing data sourced from World Bank development indicators for the period 2000-2013 and the

collected data analysed with panel data regression analysis. Results indicated that Bank Return impacted negatively on ANS, while Credit to private sectors M_3/M_1 (measures of financial innovation), and Market consent all expressed positive and significant impact on the ANS. Furthermore, Bank return, Market consent and Credit to private sectors positively impacted per capita income, only the impact of Market consent was significant. Government should pursue policies initiatives that ensure banking efficiency, dynamic innovation that improves the function of the financial system was recommended.

With data from the European Union countries, Zoltan (2015) evaluated the relationship between financial innovation and economic growth. It analyzed the impact of various financial innovation indicators on economic growth and found evidence of a positive relationship, suggesting that financial innovation contributes to economic growth.

Given the available literature reviewed, it is obvious that most studies that attempted the subject focused more on economic growth. Only a few studies such as Ajide (2016), Elumah and Muritala (2023), and Archer and Idun (2023) operationalized sustainable development using adjusted net saving but they focused on cross-country analysis. To the best of the researcher's knowledge, no study has employed adjusted net saving in Nigeria. To fill this gap, the study tends to focus on Nigeria.

3. METHODOLOGY

3.1. Model Specification

In a bid to effectively evaluate the impact of financial innovation on sustainable development in Nigeria, the study adapted the model used by Ajide (2016) and Elumah and Muritala (2023)

which was modified and stated as follows:

$$SD = f(FIF, FIM, PCI) \dots\dots\dots(1)$$

$$SD_t = \beta_0 + \beta_1 FIF_t + \beta_2 FIM_t + \beta_3 PCI_t + \mu_t \dots\dots(2)$$

Where:

μ = Error term

t = Time period

SD= Sustainable development, the dependent variable was measured using ANS, as a percentage of Gross National Income (GNI) which had been successfully utilized by previous studies (Ajide 2016; Elumah & Muritala 2023).

FIF= the ratio of liquid money to narrow money will be used to proxy financial innovations, which measures the financial depth and may be attributed to the various innovations in the financial sector (Elumah & Muritala 2023; Ajide, 2016).

FIM= the ratio of monetary sector credit to the private sector to GDP will also be used in measuring financial innovation. Since the monetary sector channels more funds to the private sector and is very involved in the intermediation process.

PCI= *Per capita* GDP was introduced as a control variable. It was used to capture the income of individuals in Nigeria. It is

believed that improved income will enhance SD in Nigeria (Ajide, 2016).

To estimate the equation (3) and (4), ARDL approach developed by Pesaran *et al.* (2001) was adopted. The

approach was selected because the assumptions and properties of the framework tends to sit well sample size is small, when the variables are integrated at mixed order and concurrent estimation of the long and short run estimates.

The ARDL formulation can be written as follows;

$$SD_t = \lambda_0 + \sum_{i=j}^n \lambda_1 FIF_{t-1} + \sum_{i=j}^n \lambda_2 FIM_{t-1} + \sum_{i=j}^n \lambda_3 PCI_{t-1} + \mu_t \dots \dots \dots (2)$$

While the error correction representation of the series used to estimate the short-run association can be specified as follows:

$$\Delta SD_t = \lambda_0 + \sum_{i=j}^n \lambda_1 \Delta FIF_{t-1} + \sum_{i=j}^n \lambda_2 \Delta FIM_{t-1} + \sum_{i=j}^n \lambda_3 \Delta PCI_{t-1} + \mu_t$$

The *a priori* expectation is expressed thus:

$$\beta_1, \beta_2, \beta_3 > 0$$

Table 1: Description of the variables

Variable	Measurement	Source	<i>A priori</i>
Sustainable development	Adjusted Net Savings to Gross National Income	World bank database (2024)	+
Financial innovations in the financial sector	the ratio of liquid money to narrow money	World bank database (2024)	+
Financial innovations in the monetary sector	Ratio of monetary sector credit to the private sector to GDP	World bank database (2024)	+
<i>Per capita income</i>	Ratio of the population to GDP	World bank database (2024)	+

Source: Authors Compilation, 2024

4. RESULTS AND DISCUSSIONS

Relevant data on the selected variables collected were analysed and the results presented in this section. The descriptive statistics of the variable were utilized to ascertain

the structure and distribution of the variables used in the model and the resultant outcome from the operation is presented in Table 2.

Table 2: Summary Statistics

	FIF	LPCI	FIM	SD
Mean	2.0819	7.5752	10.271	14.265
Median	1.7731	7.5915	9.3951	13.255
Maximum	3.2729	7.8934	19.626	34.334
Minimum	1.5759	7.2647	4.9575	2.9040
Std. Dev.	0.5431	0.2362	3.5367	8.8778
Skewness	0.8961	-0.0525	0.8239	0.8073
Kurtosis	2.3832	1.341	3.3653	2.8155
Jarque-Bera	4.7900	3.6845	3.7982	3.5216
Probability	0.0911	0.1585	0.1497	0.1719
Observations	32	32	32	32

Source: Authors computation using E-view 9.0.

Results presented in Table 2. revealed that the mean value for Financial Innovation in the Financial Sector (FIF), financial innovation in the money market (FIM), PCI and Sustainable Development (SD) the dependent variable were 2.08, 10.27, N7.57 and 14.26 respectively. The positive values suggest a desired outcome. The minimum and maximum values of FIF, FIM, PCI and SD ranged from 1.57, 4.9, 7.26 and 2.9, to 3.27, 19.62, 7.89 and 34.33 respectively suggesting that the positive values indicated that there was an increase in the series within the period under review. Furthermore, the standard deviation for FIF, FIM, PCI and SD stood at 0.54, 3.53, 0.23 and 8.87. The high SD suggests a high spread when

compared with the mean, with FIM and SD having the highest values, suggesting that they are the most volatile factors among the variables under investigation.

Similarly, SD, FIM and FIF were positively skewed except for PCI which was negatively skewed. All the variables including the dependent variable were platykurtic since their value is less than three (3) except for FIM exhibiting peakedness, indicating the series have lesser extreme outliers than those of the normal distribution. The Jarque Bera statistics suggest that all the variables were not significant at 5%, implying that the variables were normally distributed.

The result of the lag selection using various criteria is presented in Table 3.

Table 3: Result of the Lag Selection

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-156.8792	AN	1.1503	11.4914	11.6817	11.55
1	-74.57862	135.2018	0.0103	6.7556	7.7072*	7.0465
2	-49.0840	34.51*	0.0056*	6.0774*	7.7903	6.6011*
3	-42.4571	7.1003	0.0136	6.7469	9.2210	7.5032
4	-27.2072	11.9821	0.023	6.8005	10.0359	7.79

Source: Author’s computation using e-views 9.0

The result of the lag selection using various lag selection criterion suggests that the optimum lag for the model was 2, since all except the Shawarz Information criterion, have the

least values at lag 2. Specifically, the Akaike information criterion was relied upon in selecting the lag for the model.

Table 4: Augmented Dickey-Fuller (ADF) Unit Root Tests Result

Variables	ADF Test Statistics	Critical Values @ 5%	ADF Test Statistics	Critical Values @ 5%	P-value	Order of Integration
<i>LnPCI</i>	-1.7896	-3.5684	-7.3724	-3.5742	0.0000	I(1)
FIF	-2.0804	-3.5628	-5.8354	-3.5683	0.0000	I(1)
FIM	-3.7599	-3.5684	-	-	0.0334	I(0)
SD	-3.5796	-3.5629	-	-	0.0483	I(0)

Source: Computation by authors with E-view 9.0.

The result on Tables 4 indicated that two variables, FIM and SD, were stationary at levels while the other two FIF and PCI were stationary at first difference. This suggests that the series were integrated of mixed order, thus supporting the use of

ARDL. Furthermore, their respective P-values less than 0.05 indicate the absence of a unit root in the series.

Having ascertained the mixed order of integration of the series, the ARDL Bound test was conducted and the result is presented in Table 5.

Table 5: ARDL Bounds Test Result

Variables	F-statistics	Lower Bound	Upper Bound
<i>F(LPCI, FIF, FIM, SD)</i>	8.479		
10%		3.47	4.45
5%		4.01	5.07
2.5%		4.52	5.62
1%		5.17	6.36

Source: Computation by authors with E-view 9.0.

Table 5 presented the result emanating from the ARDL bound testing which revealed a coefficient of 8.479, higher above the lower and upper bound at 10%, 5%, 2.5% and 1% level of

significance, with values of 3.47 and 4.45, 4.01 and 5.07, 4.52 and 5.62, 5.17 and 6.36 respectively, indicating a long-run association in the series.

Table 6: ARDL Long-run Result

Variable	Coefficient	Std. Error	t-Statistic	Prob.
FIF	1.3061	0.5077	2.5727	0.0198
FIM	-0.0473	0.0413	-1.1473	0.2672
LPCGDP	-3.4458	1.0537	-3.2701	0.0045
C	27.0604	7.4467	3.6339	0.0021

Source: Computation by authors with E-view 9.0

Table 6 presents the result of the long-run estimates emanating from the sustainable development-financial innovation model. In the long run, FIF had a coefficient value of 1.306, indicating that FIF exerted a positive impact on the SD of Nigeria. This impact was significant judging from its P-value of 0.02. On the other hand, the coefficient FIM was -0.047 with a P-value of 0.267, which suggests a negative but

insignificant impact of FIM on sustainable development in Nigeria. This outcome may be attributed to the misapplication of funds for productive investment by customers to unproductive consumption eroding the expected impact. While per capita income exerted a negative and significant influence on sustainable development of Nigeria, given the coefficient value of -3.45 and a P-value of 0.005

Table 7: Error Correction (short-run) Result

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(SD(-1))	0.2107	0.1757	1.1993	0.2469
D(FIF)	0.3398	0.3710	0.9159	0.3725
D(FIF(-1))	1.1012	0.3951	2.7870	0.0126
D(FIM)	-0.0834	0.0427	-1.9521	0.0676
D(FIM(-1))	0.05029	0.0416	1.2091	0.2432
D(LPCGDP)	-7.4940	2.8638	-2.6168	0.0180
D(LPCGDP(-1))	4.928	2.6079	1.8896	0.0760
D(@TREND())	-0.08	0.032	-2.5011	0.0229
ECT(-1)	-0.9935	0.2153	-4.6133	0.0002

Source: Computation by authors with E-view 9.0

Table 7 presents the error correction results which lines the short-run estimate in relation to the long-run emanating from the ECM model. The ECT term value of -0.994 and a P value of 0.00, indicates the existence of a short-run association between the variables. The error term of -0.994 suggests a high speed of adjustment to the equilibrium after a shock period

In the short run FIF exerted a positive and significant impact on the sustainable development of Nigeria at level but the impact was significant under 1 lag period and as expected which is consistent with *a priori* expectation.

Furthermore, FIM expressed an insignificant impact on SD within the period under review. While per capita income exerted a negative and significant impact on the sustainable development of Nigeria.

Table 8: Results of the Diagnostic Test

Test	F-Statistics	P-value
Breusch-Pagan-Godfrey Heteroskedasticity Test	3.1817	0.0701
Breusch-Godfrey Serial Correlation LM Test	0.1053	0.7481
Ramsey RESET Test	0.0908	0.1425

Source: Computation by authors with E-view 9.0

Based on the test results in Table 8, nothing suggests the presence of heteroscedasticity in the model, given that the P-value of the Breusch-Pagan-Godfrey Heteroskedasticity test is higher than 0.05. Also, with a P-value of 0.748 that is higher than 0.05 based on the Breusch-Godfrey Serial Correlation LM test, suggests the problem of serial correlation does not exist in the model. Finally, the result of the Ramsey RESET Test suggests that the functional form of the model was

properly specified. The output of the diagnostics test suggests that result from the model can be relied upon.

Given the that the result of the short run was in line with the long run estimates, indicated that FIF positively and significantly influenced sustainable development. this so because financial innovation encourages the demand for liquid assts through the improvement in the payment system. This will in turn increase available fund for production and productive means that will foster sustainable economic

growth and development. This is in line with the *a priori* expectation and the studies of Wang and Tan (2021) and Chakraborty and Ray (2021). But inconsistent with the findings Archer and Idun (2023), lumah and Muritala (2023) and Ajide (2016).

On the other hand, *per capita* expressed a negative and significant impact on sustainable development of Nigeria, this . The outcome is consistent with *a priori* expectation, and the findings of Ajide (2016).

5. CONCLUSION AND RECOMMENDATION

The study evaluated the impact of financial innovation on sustainable development in Nigeria.

Given the that the result of the short run was in line with the long run estimates, indicated that FIF positively and significantly influenced sustainable development. this so because financial innovation encourages the demand for liquid assts through the improvement in the payment system. This will in turn increase available fund for production and productive means that will foster sustainable economic growth and development. This is in line with the *a priori* expectation and the studies of Wang and Tan (2021) and Chakraborty and Ray (2021). But inconsistent with the findings Archer and Idun (2023), lumah and Muritala (2023) and Ajide (2016).

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In this regard, efforts should be made to ensure more aggressive financial education using social media and radio to improve financial inclusion. Central Bank of Nigeria should work with financial service providers to ensure that loans are available at reasonable and flexible interest rates to support underprivileged individuals and vulnerable businesses. Also, Banks and Finance houses should intensify efforts to strengthen monitoring mechanisms to ensure that loanable funds are properly and genuinely channelled into profitable economic ventures. The miracle of the Asian Tigers is massive financial support for small and medium-scale enterprises that generate huge economic activities in the ecosystem. The operating environment of the financial service providers needed to be improved by providing basic infrastructures such as electricity, to reduce the cost of lending.

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