The Nigerian Digital Finance Environment and Its Economic Growth: Pain or Gain

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ABSTRACT

The shortage of digital infrastructures across Nigeria and the expected impact on the output of goods and services demanded this study. This study aims to identify the effect of digital finance on Nigerian gross domestic product. The study measures the prevailing impact of digital finance on economic growth in Nigeria. The variables employed in this study were ATM, POS and NIP extracted from the Central Bank of Nigeria (CBN) website between 2012 and 2017 and computed quarterly as exposed influences on the gross domestic product in the Nigerian economy. The Philips-Perron unit root and Granger Causality tests were applied. The results of the Philips-Perron unit root test were stationary at their first level difference. Furthermore, the results of the Granger Causality indicate no causal significant impact of digital finance channels of ATM, POS and NIP on the gross domestic product in the Nigerian economy. The study then concluded that ATM, POS and NIP did not constitute the significant digital finance channels policy to promote the gross domestic product in the Nigerian economy, hence they operate independently. The investigation spotted inadequate provision of digital infrastructure, security challenges and poor attention to Research and Development as likely issues affecting the growth of the digital finance environment. The study recommends that the banking sector and the network providers should spread the digital infrastructures and ATM outlets even in the rural areas and further create public awareness with the help of security personnel in all relevant flashpoints.

Keywords: Digital finance; economic growth; Philips-Perron and Granger causality; Nigeria.

1. INTRODUCTION

Digital finance has been seen as a catalyst for promoting a sound financial system both in preventing fraud and to foster economic growth as well as development. A digital financial service, with effective oversight supervision, is capable to expand the economies of scale and remained essential in closing the gap of financial inclusion. Developing countries yearning for fast
development seek the existence of financial inclusion in her economic activities. Digital finance is a financial transaction via an electronic environment. It is a branchless financial services delivery outside conventional bank branches. Such financial services go beyond banking branches, use agents or other third-party as a primary point of contact with customers and rely on technologies. Digital financial services are accessed and delivered through digital channels such as Automated Teller Machine, Point Of Sale, Internet (web), Mobile money, Nibss Instant Payment, Electronic-Bills pay, Mobile-cash, Remita, and Central Pay terminals and mobile phones to transmit transaction details, etc. In Nigeria, the digital payment system was recently launched in 2012. In 2012 the Central Bank of Nigeria (CBN) launched the National Financial Inclusion Strategy to ensure that more than 80% of bankable adults in Nigeria have access to financial services targeted at the low-income earners by 2020. The vision focuses on high volume, low-value transactions in remittance, micro-savings and withdraw services should secure a technology-driven environment with an emphasis on the rural areas. Butler [1] has berated the government for collaborating with the politicians, capitalists, monetary authorities and regulators of creators of the financial crisis. And upheld that the blame should not be extended to the banking industry only, but greedy bankers usually take advantage of unsuspected customers through credit cards.

The digital payment platforms became imperative in assisting and unbundle the Nigerian economic activities via the financial system in complementing technology-driven. Apart from the fact that the digital financial environment is expected to become a key frontier in the quest for economic diversification; Nigeria has also extended it to prevent financial leakages both in the private and public sectors. As an electronic platform, the financial agents are expected to carry out transactions on cheques, ACH/NAPS/PMS, ATM, POS, Internet (web), Mobile money, NIP, E-Bills pay, Remita, M-cash, and Central Pay, etc. The above means of transactions are expected to have a feedback mechanism and to secure transactions in Movable Assets, provide the regulatory framework for crowd-funding and providing regulatory clarity on Crypto-currency as well as combat electronic fraud.

Digital financial services have rapidly spread around the world, but the implications of their utility for economic development and the transformation of finance, have yet to fully realized Laura and Susan, [2]. Against this backdrop, some financial crime laws of monitoring and enforcement bodies were also put in place in Nigeria. Among these laws were Money Laundering (Prohibition) ACT, 2011 as amended, Corrupt Practices and Other Related Offences ACT, 2004, Economic and Financial Crimes Commission ACT, 2004, Terrorism (Prevention) ACT No. 10 of 2011, Central Bank of Nigeria Anti-Money Laundering/Combating the Financial Terrorism (AML/CFT) Risk-based Supervision Framework, 2011, Nigerian Financial Intelligence Unit (NFIU), 2019, customers Code of Practice Regulations 2007 issued by the NCC, Cyber Crime (Prohibition Prevention) ACT 2015 as well as the NCC Registration of Telephone Subscribers Regulation 2011.

With these laws, the digital financial service is being expected to transform the lives and economic prospects of Nigerians, businesses, and governments across by increasing economic growth and development in making financial inclusion a reality. Despite the lofty expectation from the digital environment in driving growth and development, it is worthy to note that some illicit cases affect the operation efficiency of the Nigerian financial environment. In 2016 a development report by World Bank claimed that digital financial transactions come with associated risks. They further noted that online financial services are easy to use but also expose customers to cybercrimes. A number of these cases are linked to electronic payment platforms.

Regulations are needed to safeguard consumers and improve the digital financial systems as stated by Huma [3]. Expecting that the financial environment can be an intruding factor to the digital finance growth rate, the Central Bank of Nigeria over these years has adopted a series of oversight supervisions to maintain sound financial activities and promote growth rate in the financial system. Majorly, this has been the focus of achieving output growth, economic stability, exchange rate stability, financial intermediation, employment, expansion of financial activities, etc. Digital finance reduces barriers of entry and thereby increases the employment rate and so does output and quality services Achrai [4].

This effort was adversely weakened by corruption and other illicit acts. In the claim by Gretta [5] only a few channels from digital
finance have a direct bearing to economic growth. It will interest us to note that the alleged corrupted transactions were tracked through electronic platforms. The corruption cases ranged from advance fee fraud, money laundry, kick back, cybercrimes and among others. This confirmed that the above transactions must have been carried out through one of or the following channels; ATM, POS, NIP and among others. This goes on to support the argument of the turning point between digital finance and economic growth.

In light of the above, this study employs Automated Teller Machine (ATM), Point of Sale (POS) and Nibss Instant Payments (NIP) as the selected digital finance channel variables while exposing their influence on the economic growth in Nigeria. Also, Economic growth is measured by gross domestic product (GDP) output of goods and services for current prices.

Despite the innovations and the improved technology over these periods, the output of goods and services seems to have received significant. Undermining the digital finance infrastructural performance has re-directed economic activities. Besides that, it has remained difficult to increase investment. Efforts made to embrace the digital infrastructures, the expectations on the technology and existing laws to support the economic growth rate of the financial environment have largely been fraught with different degrees of challenges. Cybercrimes and other related cases have often reported due to the uncertainty and lack of proper attention in the digital environment by victims. It is no news that despite the digital infrastructure in the financial environment, between 2016 and 2017 the Nigerian economy experienced a fair recession which crippled economic activities and unexpected hardship in the nation. The present ruling government has confirmed that it was a result of massive corruption in the public sector which has been electronically tracked.

The impact of digital finance on economic growth in the Nigerian economy remained a valuable subject of contemporary issues in banking, finance and economic development to study. The issue of digital financing in a developing economy like Nigeria has generated a lot of concern for a large number of financial actors and researchers. Few scholars here have debated and arrived in divert opinion. Some have argued that digital finance increases the output of goods and services, whereas others have observed otherwise. Huma [3] stated that digital finance only played the role of handle income shocks. The study of Eleanor [6] stressed that implementing digital financial services will speed financial inclusion and promote economic growth. Furthermore, Manyika, Lund, Singer, White and Berry [7] reported that digital financial services grow the output of goods and services. While Shofawati [8] claimed that digital was only targeted at reducing the poverty level in Indonesia. On the other hand, Ozili [9] in a contra vetting explained that digital finance can only promote economic good times by a mere increase in financial volume. Huma [3] in an independent consultancy report claimed that digital technology alone is not sufficient to grow an economy.

Largely, the above studies here show little or no scientific methodology in their investigations before reaching conclusions. Hence, this study will provide a superior argument and a better result of the problem. In this light, there is an urgent need to measure the impact of digital finance on economic growth by spotting the extent of support while employing recent quarterly data within the Nigerian economy.

The purpose of this study is to measure the prevailing impact of digital finance on economic growth in the Nigerian economy. A question can be asked; to what measure does a digital finance channel of ATM, POS, and NIP impact on gross domestic product (GDP) in the Nigerian economy? Hypothetically, Digital finance channels of ATM, POS, and NIP did not significantly impact on gross domestic product in the Nigerian economy.

This work will cover the period of 2012 to 2017 applying quarterly data. The variables of the study will be extracted from the Central of Nigeria (CBN) website. Among these variables will be a gross domestic product (GDP) as proxies for economic growth. While Automated Teller Machine (ATM), Point of Sale (POS) and Nibss Instant Payment (NIP) will stand in for digital finance being the independent parameters. The above-enumerated variables will cover a period between 2012 and 2017 extracted from the Central Bank of Nigeria (CBN) site. The study will adopt the Ex-Post facto methodology. The study will be economic growth influences by the above digital finance channels in the Nigerian geographical economy.
The obvious limitation will arise from the availability of data and the time needed for the presentation. In this circumstance, therefore, the results of this study would have improved a bit if data covered beyond periods. Scholars/ Academics will find this as a step towards the resolution of the controversy on the impact of digital finance on economic growth. Findings emanating from here will serve as good reference material while enriching further the existing body of knowledge for scholarly purposes. It is well known that research findings and contributions remain incremental. Scholars will see the findings arising from this study as a reasonable addition to the existing body of knowledge.

Also, the findings arising from this study will be used by the general public for awareness and understanding of the functional impact of digital finance channels of ATM, POS, and NIP on gross domestic growth. Undoubtedly, the general public makes up the financial environment under which the channels operate. The public needs to be financially literate and aware of the existing digital infrastructure as regards its interface with economic activities. This is what this work stands to offer the general public.

Also, Policies formulators and governors of the digital financial environment and the participant of the economy alike will find this study quite significant. As the study exposes the nature of the impact between economic growth and the digital financial environment, policymakers will be guided in fashioning policies and regulatory frameworks that are in tune with the dynamics of the financial sector and economy interface. Undoubtedly, public policy managers including Central Bank of Nigeria, National Assembly will find this useful in the formulating, management and/or reviews of financial policies/laws.

More so, industry practitioners like the Bankers, investors, market players, and makers will find this study significant as it will expose to the risk from the digital financial environment to their activities in the economy. Since investment in the financial sector exposes investors to risks that are inherent in the digital environment. These risks are mostly unverifiable because they are systematic. Studies such as this will show the extent of influence that can come on the economy from the digital environment so that industry practitioners can now show to circumvent such risks.

2. LITERATURE REVIEW

The term digital finance refers to financial services delivered through mobile phones, personal computers, the internet or cards linked to a reliable digital payment system. Digital finance encompasses a magnitude of new financial products, financial business, finance-related software, and novel forms of customers’ communication and interaction-delivered by Financial Technology companies and innovative financial services providers. It involves an environment of technological infrastructure that enables individuals and companies to have access to payments, savings and credit facilities via the internet (online) without the need to visit a bank branch or without dealing directly with the financial services providers. According to Shofawati [8] that digital financial services generally refer to the far-reaching technologies available to perform financial services from a wider range of providers to an extensive category of recipients. This is possible by the use of digital remote means including e-money; card payments like ATM, POS and electronic funds transfer like NIP. Digital finance can lead to greater financial inclusion by expanding financial services to non-financial sectors, and the expansion of basic services. It can lead to greater economic stability and increased financial intermediation. It can also boost long-term positive effects on banking performance.

The study of the digital financial environment is a contemporary issue that is yearning for enrichment. Only a few scholars have shown interest in this related aspect of the study. So far a large number of the few studies have in favour of digital financial service and exposing its challenges. Masoud and Hardaker [10] study the impact of financial development on economic growth. The study aimed to provide a theoretical framework that will integrate the endogenous growth and functions of financial markets as well as institutions theory. To further investigate how the financial market and the banking sector develop indicators that affect economic growth in the affected countries. The study applied the endogenous growth model of over 12 year of 42 emerging markets. The findings show that stock market development has a significant effect on economic growth through the digital financial environment. The research also found large support of the view that there is a stable, long-term equilibrium relationship between the evolution of the stock market and that of the economy.
Evan, Frederico, and Ross [11] vet the regulations of digital financial services agents in developing countries to promote financial inclusion. The study analyses whether the vicarious liability of the principal is a more efficient regulatory approach than the personal liability of the agents in Kenya, Fiji, and Malawi. The results demonstrate that vicarious liability of the principal, coupled to an explicit agreement as to agent rewards and penalties is a more efficient regulatory approach. In all the study explained that digital financial services offered by banks and mobile money providers through agents can solve a problem without the need for complex and costly physical banking infrastructures. Karlan, Kendall, Mann, Pande, Suri, and Zinman [12] inspect the impacts of digital financial services. The working paper provides rigorous evidence that financial services innovation can have important positive impacts on wellbeing. The study explained why there could be financial market failures but opine that innovations would only be an alternative in addressing the specific mechanism that may occur.

Manyika, et al [7] reported on how digital finance could boost growth in emerging economies. The study as claimed was the first attempt to quantify the full impact of digital finance of applying extensive economic modeling in seven countries viz; Brazil, China, Ethiopia, India, Mexico, Nigeria, and Pakistan. The study findings indicated that developing financial services by mobile phones could benefit a lot of persons by promoting inclusive growth rate to GDP. Eleanor [6] examines financial inclusion and technological innovation in the emerging world, which caption "the future is mobile". The study found out that the digital revolution is in full bloom and technology is being used to solve the world's most challenging problems, yet traditional banking excludes many of the world's poorest groups from taking advantage of the full harvest of the digital system. Furthermore, digital finance can accelerate financial inclusion and support economic growth. The study suggested widespread regulatory reforms that will address data security and consumer privacy.

Gretta [5] evaluates financial inclusion and economic growth. The study employed VAR regression to quantify the relationship between financial inclusion in terms of financial activities, financial literacy and economic growth in the MENA region. The findings showed that financial inclusion remained important and serve part of the world but through limited data. The study further showcases, that financial inclusion is a problem that demands financial literacy. Laura and Susan [2] look into the promise of digital finance. The study found out that mobile phones and digital technologies have rapidly spread around the globe, but the implications of utilization for economic development and the transformation of finance is yet to receive full attention. The study prayed for urgent reforms for full and better utilization.

Achral [4] spots e-finance, entrepreneurship and economic growth in developing countries. The study found out that financial institutions play a predominant and obvious role in the implementation of e-finance, but goes on the sort that it is not solely. The reason is electronic payment also promotes the problem of lack of access to the banking sector. The study stress that to overcome e-finance challenges in developing countries the economies should be more cashless. Bigirimana and Hongyi [13] analysed the relationship between financial inclusion and economic growth in Rwanda with evidence from commercial banks. The study employed the ARDL approach and captured data from 2004 to 2016. The study findings revealed a long-term relationship between financial inclusion and economic growth in Rwanda. Ozili [9] examines the impact of digital finance on financial inclusion and stability. The study aims to provide literature on some issues around digital finance since it has not been critically addressed. After most, the study found out that a good number of issues still borders the digital environment that demands attention to function efficiently for both individuals, businesses, and governments. The study suggested a greater financial inclusion through digital finance in the developing and emerging economies.

The above literature review here prevails mixture observations. A close study indicates that most of the studies are more of long essay research, without the application of the analytical tool to reveal empirical evidence. Except for the study of Masoud and Hardaker [10] using the endogenous growth model, Manyika et al. [7] employing the economic model and the study of Greta [5] initiated the VAR regression as well as Bigirimana and Hongyi [13] applying the ARDL approach in Rwanda. The study of Manyika, et al [7] was the only work linked to the Nigerian economy besides that, the study is more of events predictions yet to come. Furthermore, it is a cross-sectional study.
This study, the impact of digital finance on economic growth in the Nigerian economy will apply Granger Casualty test with data spanning between 2012 and 2017. Furthermore, due to the limited span of data, the study will increase the points by computing it into quarterly information. In light of this, the results will improve and constitute empirical evidence for reliable policy formulations.

3. METHODOLOGY

This study adopts secondary data to measure the impact of digital finance on economic growth in the Nigerian economy. The data is sourced from the Central Bank of Nigeria (CBN) website for 2012 to 2017 and computed quarterly. They consist of gross domestic product (GDP) as a proxy for economic growth and digital finance variables which include Automated Teller Machine (ATM), Point of Sale (POS) as well as Nibss Instant Payment (NIP).

The dependent variable in this study is economic growth represented by gross domestic product (GDP), while the set of explanatory variables constitute Automated Teller Machine (ATM), Point of Sale (POS) as well as Nibss Instant Payment (NIP).

From the broad objective of the study, the Granger causality test becomes imperative to analyse how the independent variables promote/support the dependent variable or how both reinforce themselves in the growth process. According to Koop [14], Granger causality tests are evaluated to measure variable X granger causes Y if past values of X can help explain Y. The model below implies that the last period's value of X has an explanatory influence on the current value of Y. Given the objective of measuring the impact of digital finance environment on the set of variables, the functional models are therefore stated as follows:

\[ \text{GDP} = f (\text{Digital Finance Environment}) \]  

(1)

And mathematically as follows:

\[ \gamma_t = \phi + \gamma X_{t-1} + \gamma_2 X_{t-2} + \gamma_3 X_{t-3} + e_t \]  

(2)

And econometrical as follows:

\[ \text{GDP}_t = \gamma_0 + \gamma_1 \text{ATM}_t + \gamma_2 \text{POS}_t + \gamma_3 \text{NIP}_t + e_t \]  

(3)

From the above equation, it assumed that X and Y will be stationary.

Where,

\( \gamma \) is a measure of the influence of \( X_{t-1} \) on \( Y_t \). If \( \gamma_1, \gamma_2 \) and \( \gamma_3 \) are greater than 0.05 respectively, then past values of X do not affect Y and there is no way that X could granger causes Y.

Restating the above eq. in the econometric form below and results will be extracted from E-views software.

Whereas,

\( \text{GDP}_t = \) Gross Domestic Product over time, \( t \) 
\( \text{ATM}_t = \) Automated Teller Machine over time, \( t \) 
\( \text{POS}_t = \) Point of Sale over time, \( t \) 
\( \text{NIP}_t = \) Nibss Instant Payment over time, \( t \) 
\( \Phi = \) Correlation Coefficient 
\( \gamma = \) Parameter estimate 
\( e_t = \) error term.

From the equations above, the prior expectations are derived from underlying theoretical relationships between the dependence and each of the employed explanatory variables. These are presented as follows;

a. **Automated teller machine:** A rise in the automated teller machine process would translate an increase of financial intermediation thereby add value to businesses that directly raise the output of goods and services. The sensitivity of less than 5% level of significance concerning automated teller machine is expected i.e. \( \gamma_1 > 0 \) at less than or equal to 5% level of significance. Therefore ATM is expected to granger cause gross domestic product.

b. **Point of sale:** Fundamentally, a rise in point of sale channels would imply an enhancement of the business opportunities and convenient which directly raises the output of goods and services. Cashless and performance, thereby, yielding sensitivity concerning point of sale is expected to be greater than zero, i.e. \( \gamma_2 > 0 \) at less than or equal to 5% level of significance. Therefore POS is expected to granger cause gross domestic product.

c. **Nibs instant payment:** A higher nibss instant payment process will reduce the cash in circulation. This would translate to the price stability of the Naira and consequently, on the economy thereby directly boost the output of goods and services. Accordingly, the sensitivity of growth rate will be less than 5% level of significance to the nibss instant
payment rate is expected to be greater than zero, i.e. \( \gamma_3 > 0 \) at less than or equal to 5% level of significance. Therefore NIP is expected to granger cause gross domestic product.

**Operational Measures of study variables:**

i. Gross domestic product is employed as our dependent variable in the model. It is the product of valuable goods and services produced in Nigeria. It is measured in Naira.

ii. Automated Teller Machine is a digital banking transaction by customers through cards irrespective of the branch. It is measured in billions of Naira.

iii. Point of sale is a digital transaction by an account holder through cards to maintain a cashless economy. It is measured in billions of Naira.

iv. Nibss Instant Payment is a digital banking transaction by an account holder through the internet to maintain a cashless economy. It is measured in billions of Naira.

4. **RESULTS PRESENTATION AND DISCUSSION OF FINDINGS**

4.1 **Presentation of Data**

The Table 1 shows quarterly data between 2012 and 2017.

4.2 **Data Analysis**

4.2.1 **Philips-Perron unit root test results**

The Results of the Unit Root Test as Presented in Table 2.

4.3 **Test of Hypotheses**

4.3.1 **Test of hypothesis one**

\( H_0: \) There is no significant unit root between gross domestic product and each of digital finance channels of automated teller machine (ATM), point of sale (POS) and nibss instant payment (NIP) in the Nigerian economy.

<table>
<thead>
<tr>
<th>GDP</th>
<th>POS</th>
<th>ATM</th>
<th>NIP</th>
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</thead>
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<td>646898.75</td>
<td>93878288.5</td>
<td>1112413.5</td>
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</table>

Extracted from Central Bank of Nigeria
Table 2. Philips-Perron unit root test (Summary)

<table>
<thead>
<tr>
<th>Differenced variables</th>
<th>Philips-Perron test statistic</th>
<th>Test of critical level</th>
<th>Order of integration</th>
<th>Probability value</th>
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</thead>
<tbody>
<tr>
<td>D(GDP)</td>
<td>-4.671982</td>
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<td>-3.004861</td>
<td>-2.642242</td>
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<tr>
<td>D(ATM)</td>
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<td>-3.004861</td>
<td>-2.642242</td>
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<tr>
<td>D(POS)</td>
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<td>-3.769597</td>
<td>-3.004861</td>
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</tr>
<tr>
<td>D(NIP)</td>
<td>-4.584709</td>
<td>-3.769597</td>
<td>-3.004861</td>
<td>-2.642242</td>
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</table>

Table 3. Granger causality - test (Summary)

<table>
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<th>Obs</th>
<th>F-Statistic</th>
<th>Prob.</th>
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</thead>
<tbody>
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<tr>
<td>GDP does not Granger Cause ATM</td>
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<tr>
<td>POS does not Granger Cause GDP</td>
<td>22</td>
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<tr>
<td>GDP does not Granger Cause POS</td>
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<tr>
<td>NIP does not Granger Cause GDP</td>
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<tr>
<td>GDP does not Granger Cause NIP</td>
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<td>0.27483</td>
<td>0.7630</td>
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</table>

$H_{a1}$: There is a significant unit root between gross domestic product and each of digital finance channels of automated teller machine (ATM), point of sale (POS) and nibss instant payment (NIP) in the Nigerian economy.

From the above results shown on the table, the alternate hypothesis that the variables have unit root is rejected at the 0.05 level of significance. This is for the fact that the Philips-Perron test statistics is greater than its critical values. Alternatively, its probability values are less than 0.05. Thus, the study can go on to say that there is no unit root among the variables in their first difference and therefore all variables data are stationary. Therefore, the null hypothesis is hereby accepted.

4.3.2 Pair-wise Granger causality tests

The results of the Granger Causality Test as Presented in Table 3.

4.3.3 Test of hypothesis two

$H_0$: Digital finance channels of ATM, POS and NIP did not significantly impact on gross domestic product in the Nigerian economy.

$H_a$: Digital finance channels of ATM, POS and NIP significantly impact on gross domestic product in the Nigerian economy.

As claimed by Koop [14]; if the P-value for the F-statistic is than 0.05, it can be concluded that $R^2 \neq 0$. And if the P-value for the F-statistic is greater than 0.05, it can be concluded that $R^2 = 0$. Recall if $R^2 = 0$ then X does not have any explanatory impact for Y. Therefore the test of hypothesis $R^2 = 0$ aims to interpret if the results expose any influence at all.

From the above results shown on the table, the alternate hypothesis that the digital finance variables significantly impact on the gross domestic product is rejected at the 0.05 level of significance. This is for the fact that the probability values are greater than 0.05. Thus, the study can go on to say that there is no significant causal impact among the variables.

Besides, the probability values indicate an insignificant Causal impact of automated teller machine (ATM), point of sale (POS), and nibss instant payment (NIP) on gross domestic product. The null hypothesis is therefore accepted for them, while the alternate is rejected.

4.4 Discussion of Findings

This study empirically measures the impact of digital finance on the gross domestic product in the Nigerian economy. The variables employed in the study are; Automate Teller Machine (ATM),
Point of Sale (POS) and Nibss Instant Payment (NIP) as digital channels in Nigeria.

From the above analysis of Granger Causality tests, the results measured no significant causal impact of digital finance on the gross domestic product in the Nigerian economy. Hence these variables of the study appear operating independently. These results could be an indication of the unpopularity of the digital financial environment, maybe due to the insecurity of restricting the banking sector of spreading outlets enough. The Nigerian environment has been on the news for a high rate of crime ranging from terrorism, militancy, etc. These groups of people have been engaging forms of kidnapping, arm robbing, destruction of lives and properties are endangering the public and thereby slowing the pace of economic growth and development by shortage spread of these digital infrastructures.

The limited network service providers and the poor level of financial literacy, especially the rural dwellers could also be a possible cause of these results. They’re seen to be a downturn in research and development towards the area of financial innovation. The slow pace and the neglect in embracing advanced technology and research for innovation could also be a possible cause of these results.

From the above deduction, it can be summarized that the low spread of digital infrastructure, security challenges and poor attention to Research and Development are the likely issues affecting the digital financial environment. It is glaring that the digital financial environment has over these periods only provides a cashless and the movement of funds to its destinations.

5. CONCLUSION

Digital finance is increasingly being implemented in many countries as a means of preventing fraud and also fostering economic growth and development. However, despite the arguments in the literature in favour of the need to safeguard consumers and improve the digital financial systems and the subsequent introduction of the ATM, POS, and NIP by the Central Bank of Nigeria, the results of this study show no significant impact on the national GDP. While the demand for technology-driven financial systems continues to increase, the level of socio-economic and political development of Nigeria and the attendant security challenges have slowed down the potential benefits of digital finance channels. Furthermore, from the findings of this study, it can be concluded that Automated Teller Machine (ATM), Point of Sale (POS) and Nibss Instant Payment (NIP) did not constitute the significant digital finance channels policy to promote the gross domestic product in the Nigerian economy. Again, gross domestic product in Nigeria appears to be independent of Automated Teller Machine (ATM), Point of Sale (POS) as well as Nibss Instant Payment (NIP) and as such, cannot be influenced by each other. Therefore, this study contributes to public policy formulation and implementation in Nigeria. Finally, the study exposed for a more robust policy review particularly as it affects the implementation of the ATM, POS and NIP channels in such a way that would contribute to the gross domestic product of the Nigerian Economy.

6. RECOMMENDATION(S)

Based on the findings, the following recommendations are made:

i. The banking sector and network providers should increase the widespread of digital infrastructures and outlet even in rural areas and further create public awareness.
ii. The security personnel should be more proactive and well equipped with security devices in all relevant flash points to guarantee the safety of lives and public facilities.
iii. The Central Bank of Nigeria should encourage the financial sector through Research and Development that will translate into strong and sound financial innovation.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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