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## Bank diversification strategies and financial performance in Nigerian economy

Onuorah, A. C.

*Department of Accounting, Banking and Finance, Faculty of Management Sciences,  
Delta State University, Abraka, Asaba Campus – Nigeria.*

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### Abstract

*This paper looked at bank diversification strategies (BDS) and financial performance in the Nigerian economy. The data was sourced from World Bank Report (2019), Nigeria Deposit Insurance Corporation report (2019), and Central bank of Nigeria Statistical Bulletin (2019). Unit root (UR) test and Vector autoregressive (VAR) model were used to find out the relationship between bank diversification strategies and the performance of the Nigerian economy. The study affirmed that Sectorial Loan Diversification (LnSDIV) positively and significantly affected the Gross Domestic Product Growth Rate (LnGDPR). Revenue Diversification (LnRDIV), LnDDIV, and Annual Inflation Rate (LnAIFR) affected negatively, Gross Domestic Product Growth Rate (LnGDPR). Sectorial Loan Diversification (LnSDIV) and LnRDIV significantly drive the Nigerian economy. The paper concluded that LnSDIV and LnAIFR had a short-term impact on the Nigerian economy. The paper recommends that policy on stable diversification of economy regime capable of attracting both local and foreign investments in Nigeria should be implemented.*

**Keywords:** Banking industry, diversification strategy, gross domestic product, inflation

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### 1. Introduction

The term “bank diversification strategies” remains a regular discourse among financiers of companies, policymakers, bank management, academicians, empiricists, and theorists in both emerging and developed economies. This is owing to the assumed importance of revenue diversification as it affects bank performance (risk and return). In the same vein, even though the banking industry is the most regulated in the world, it is still faced with systematic risk exacerbated by economic vagaries, depth of her financial system, financial market and instrument immaturity, reduction in net interest margin, and intense competition in the system. Hence, risk management and control play a fundamental role in every banking system since it reduces

unsystematic risks. Also, bank managements had realized that it is unwise of them to put one’s investment in just one bank. Should profit accrued from interest income sources reduce, the bank may decide to shift from conventional sources towards non- conventional sources such as fees and commission income, trading revenue, service charges, and other related non-interest income.

The Nigerian banking industry has passed through various of drastic changes since the implementation of financial liberalization in 1986, global unrest in 2009, recapitalization of the Nigerian banking industry in 2009, and financial recession between 2009 and 2015. Better still, despite the presupposed benefits accruable from banks’ portfolio diversification and the increased use of these tactics by banks and other financial

institutions, the issue of banks' portfolio diversification remains a rear discourse amongst academicians and bank managements in Nigeria.

Theoretical clarifications abound on the consequential effect of bank diversification strategies on its stability and performance. However, its consequential effect on economic growth is quite uncertain and unexplored. According to portfolio theory, bank diversification strategies help diversified banks to enjoy economies of scale which in turn reduces banks' instability but increases banks profit (Klien & Deidenberg, 1997). Although, diversification strategy is intrinsically riskier than the normal banking activities owing to the fact that diversification cost may sometimes be more than its return, and the likelihood of deriving profit in its banking operations may be hampered and its overall performance may become worse and questionable (Boyd, Graham & Hewitt, 1993). However, if diversification must be worthwhile and necessitate banks to achieve their corporate goals and objective in all respect, frequent and proper check of the banks' operations must be adopted often. Unpredictably, instead of making diversified banks experience and achievement, it has increased banks' exposure to loss and perils stemming from its diversification policy. It has also affected their modus operandi, and made them adopt various capital restructuring strategies (Olawaju, Migiro, & Sibanda, 2019).

Again, against the general assumption that diversification strategy reduces agency problem, it rather worsens it and makes banks adopt various capital restructuring strategies. This notwithstanding, diversification strategy has never been a negative option for banks especially when it is efficiently and effectively handled by

a competent risk management team. Thus, whether the benefits which the bank accrues from her diversification strategy outweigh costs is more of an empirical and theoretical issue than a pragmatic issue. Hence, this study seeks to address the issue. Following the resource-based view hypothesis, the portfolio diversification policy of a firm is dependent on the financial prowess of the firm. This viewpoint holds that firms should maximize their present operational financial, human, and material resources to attain efficiency from diversification, gain sustainable competitive advantage, and economies of scope and scale. Thus, if banks can adopt the diversification of their various operational financial, human, and material resources, their effective financial performance and by extension economic growth and development will be undeniable (Obisesan & Ogunsanwo, 2018).

From the empirical front, studies on bank diversification strategies (BDS) and economic growth are quite uncertain and unexplored. Hence, this study will therefore fill the gap in the literature by further expounding on the discovery which held that bank diversification strategies has a directional effect on the financial performance of Nigeria.

Contrastingly, the issue of the benefits of studying the factors which determine banks' performance (risk and return) has captured scholarly attention. De Jonghe (2010) submitted that the banking industry all over the world deserves regulatory agencies' attention since they desire to maintain financial stability. Moreover, as Wolf (2009) spotted, banks play a foundational role in any modern financial system, and in developing countries like Nigeria, they occupy a central position in the entire financial system. According to Ferreira, Zanini, and Alves (2019), revenue diversification helps firms take

advantage of investments that are economically advantageous, commercially desirable, and financially feasible. The study added that bank diversification strategies results to economies of scope and scale, tax shield via optimum financial leverage ratio. Conversely, bank diversification strategies costs may outweigh the above postulations.

Premised on the arguments presented so far, three pertinent research questions were raised:

- 1.To what degree has revenue diversification of banks affected Nigerian economy?
- 2.How has deposit diversification of banks affected Nigerian economy?
- 3.How has sectorial loan diversification affected Nigerian economy?

Accordingly, this study would be both theoretically and empirically relevant both in the field of finance and accounting. More so, the recommendations that emanated from this study would assist Nigerian policy makers in making informed decisions on how best to address the idiosyncratic risk components inherent in the banking industry. Again, this paper would serve as a reference material to researchers desiring to undergo similar studies. More so, this paper is useful to both investors and the public in that it would expose them more on the various investment outlets inherent in Nigeria.

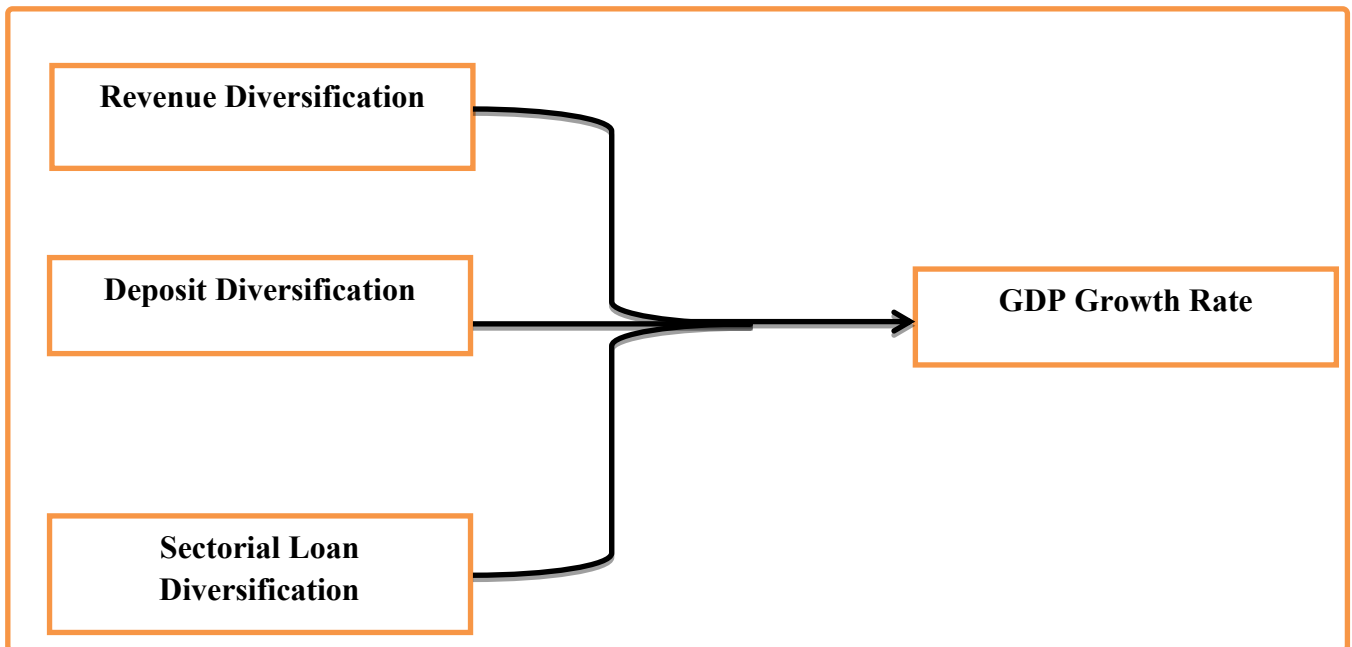
The rest of the paper was divided as follows: Literature Reviews and

hypothesis development; research methodology; Results and Discussions; & Conclusions and Recommendations.

## **2. Literature Reviews and Hypothesis Development**

This section is divided into the conceptual approach, theoretical foundation, and empirical studies on the subject matter. First, the concept of bank diversification strategies (BDS) has been given scholarly attention in recent times. BDS is defined as the process of dispersing a bank's income and assets (loans) over a wider variety of competent borrowers, to improve its earning level while maintaining the same level of risk exposure. In other words, it is a deliberate action undertaking by banks to focus on other income-generated sources other than its normal business activities. The essence of this strategy is for banks to diversify their credit portfolio to increase and boost their competitive performance, reduce credit portfolio risk (investment risk), and hedge against investment risk.

In addition, in finance parlance, BDS can be defined as the process of sharing capital funds in a bid to hedge against investment risk. Indeed, BDS is a risk reduction and profit incremental approach. Meanwhile, economic growth is the appreciation of the monetary values of commodities produced and services rendered in a country usually within a fiscal year. It is often measured using real GDP. Hence, we assumed that, for an economy to grow, banks must diversify their revenue, deposit, and must extend credits to different (Figure 1).



*Figure 1: Relationship between bank diversification and economic growth (Source: Researcher's Model, 2021)*

Theoretical and empirical clarifications abound on the consequential effect of bank diversification strategies on bank stability and performance. However, its consequential effect on economic growth is quite uncertain and unexplored. As suggested by Harry Markowitz (1952), a founder of modern portfolio theory, one of the ways of constructing an optimal portfolio is to study the impact of portfolio diversification taking cognizance various securities within a portfolio and their covariance relationship. The study further stated that portfolio diversification involves taking maximum advantage of market conditions and minimizing the impact of its vagaries. This will include balancing of securities by yield to maturity, term of maturity, market sector rotation, credit rating, liquidity, and risk, and tax shelter. Thus, diversification is aimed at minimizing the variability of portfolio returns without reducing its expected returns. In so doing, what matters is the nature of cancellation between component assets and not how many assets are combined. By way of application, BDS

helps diversified banks to enjoy economies of scale which in turn sustains bank performance and reduces financial instability (Klien & Deidenberg, 1997). Noteworthy, unrelated streams of income from diverse sources affect the overall profits of banks (Chiorazzo, Milani, & Salvin, 2008). Although, if the diversification strategies are intrinsically riskier than the normal banking activities, diversification cost may sometimes be more than its return, and the likelihood of deriving profit in its banking operations may be hampered and its overall performance (Boyd et al., 1993). However, if diversification must be worthwhile and necessitate banks to attain their corporate goals in all respect, frequent and proper check of the banks must be adopted often. Unpredictably, instead of making diversified banks experience remarkable achievement, it has exposed banks to more loss and perils. Also, it has made banks financially incompetent thereby depriving banks of meeting their maturing obligations, affected their modus operandi, and made them adopt various capital

restructuring strategies (Olawaju, Migiro, & Sibanda, 2019).

Again, agency theory was postulated by Jensen (1986) to solve the problems which arise between agent and the principal coupled with the fact that ownership is separated from management. According to Jensen (1986), information asymmetry, imperfect capital market operation, and legal barriers resulting from agency problems affect banks' diversification activities. Moreover, different stakeholders may view diversification from different perspectives and if the needs of the diverse stakeholders are not met, it might pose an adverse effect on both the financial performance and stability of the entire economy (Olawaju et al, 2017). Consequently, shareholders prefer high return on investment, return on their holdings, and riskier portfolios than debt-holders. As such, they may compel bank management to curtail their diversification activities. Conversely, bank managers may decide to sustain their diversification strategy even when it decreases firms' value. This means that the more the firm expands, the greater the benefits that management accrues from diversification strategy (Denis, Denis, & Sarin, 1997).

Against the general assumption that, diversification strategy reduces agency problem, instead, it rather worsens it and makes banks adopt various capital restructuring strategies. However, diversification strategy has never been a negative option for banks; it becomes negative when it is not efficiently and effectively handled by a competent risk management team. Thus, whether the benefits which the bank accrues from her diversification strategy outweigh costs is more of an empirical and theoretical issue than a pragmatic issue. Hence, this study seeks to address the issue.

Following the resource-based view hypothesis, the portfolio diversification policy of a firm is dependent on the

financial prowess of the firm. This viewpoint holds that firms should maximize their present operational financial, human, and material resources to attain efficiency from diversification, gain sustainable competitive advantage, and economies of scope and scale. Thus, efficient banks diversification policy of improves bank performance and by extension economic growth and development will be undeniable (Obisesan & Ogunsanwo, 2018).

Empirical studies on the construct abound in developed economies, however, with regards to the Nigerian banking market, empirical proof on the subject matter are few. However, empirical proof in support of the subject matter disproves the non-traditional interest income sources bank profitability inducing and risk absorption capacity.

Recently, Hamid and Ibrahim (2021) investigated the effect of competition, diversification, and bank performance of 18 countries from 2000 to 2016. The study used the panel vector auto-regression model, impulse response function, and variance decomposition methods. The study confirmed that market power improves bank profitability and stability while revenue and asset diversification reduce bank profitability and stability in emerging countries.

Duho, Onumah, and Owodo (2020) studied diversification, profitability, profit efficiency, and banks stability nexus. The study was situated in Ghana. The study used the panel data approach and reported that BDS impairs bank profit, profit, deters its efficiency and stability though asset-mix diversification was found to be irrelevant.

Furthermore, Ferreira et al. (2019) examined whether revenue diversification improves Brazilian banks' performance or

not. The study covered from 2003 to 2014. The adopted the Generalized Method of Moments (GMM). The study reported that revenue diversification improves bank performance. Again, real interest rate, GDP, and bank growth rate are major bank performance determinants.

Nesrine and Adel (2019) examined the impact of bank revenue diversification on risk and return on fourteen (14) MENA countries from 2003 to 2014. The study adopted the GMM approach. The study reported that revenue diversification enhances bank risk and return.

Naiwei, Chen, Hsin-YuLang, and Min-The Yu (2018) underscored the nexus between asset diversification and the performance of three (3) Asian commercial and Islamic banks from 2006 down to 2012. The study used the multivariate analysis. The study discovered that diversification generally deter the performance of conventional (commercial) banks but exerted minimal effect on Islamic banks. Meanwhile, bank size was able to mediate efficiently between diversification and the profitability of both conventional (commercial) and Islamic banks.

In Malaysia, Brahmana, Kontesa, and Gilbert (2018) investigated the income diversification -bank performance nexus in Malaysia from 2005 to 2015. The study supported the fixed effect model and reported that income diversification exerted a positive effect on bank performance.

Sherene (2015) investigated the complementary relationship between income and loan diversification, financial performance, and stability by adopting a SUR model to Jamaican commercial bank panel data spanning from March 2005 to March 2015. The study adopted Herfindahl-Hirschman Index (HHI) equations. The findings revealed that loan portfolio diversification improves bank

stability and boosts profitability of small banks.

In another study, Michael (2015) studied the effect of bank size and funding risk on the financial stability of banks. The study collected data from the rural banking industry in Ghana. The regressors are credit risk, liquidity risk, income diversification, and bank size while the regressed is return on asset. The inflation rate, financial structure, and GDP served as control variables. The results suggest that both bank size and funding risk increases bank stability.

Lee, Hsieh, and Yang (2014) examined the impact of revenue diversification on the performance of Asian banks spanning from 1995 to 2009. The result revealed that bank performance could be increased through bank diversification strategies, and revenue diversification positively affects banks' profitability and negatively affect bank risk.

Angus and Tatiana (2014) determined the effect of income and asset diversity on market value (the price to book ratio and Tobin's q). Data was gotten from 800 banks from 31 countries around the globe. The result revealed that bank diversity affects small banks significantly.

In Asia, Lin, Chung, Hsieh, and Wu (2012) explored the relationship between diversification strategy and the interest rate margin covering a sample size of 262 banks choosing from 9 Asian countries spanning from 1997-2005. Their results revealed that non-diversified banks are more prone to interest rate margin fluctuation than the most diversified banks. Again, Martin (2012) analyzed the impact of bank diversification on bank performance in USA. The study revealed that BDS enhances bank performance.

Sanya and Wolfe (2011) analyzed 226 publicly-owned banks in eleven (11) developing countries spanning from 2000 to 2007. Revenue Diversification exerted a positive relationship with risk-adjusted



return and a negative relationship with risk measured by Z-Score. Thus, they found consistent evidence in line with previous studies.

Elsas et al. (2010) analyzed whether BDS improves bank returns or not. The study was confined to of 380 banks of 9 countries from 1996 to 2003. The study reaffirmed that revenue diversification increases banks' profitability. Following the theoretical foundation which guides this study and the empirical evidence reviewed, we hypothesize thus:

- 1. Revenue diversification of banks has not positive and significant effect Nigerian economy.
- 2. Deposit diversification of banks does not significantly affect the Nigerian economy.
- 3. Sectorial loan diversification of banks has not affected the Nigerian economy.

**2.4.Literature Gap**

The above studies clearly spotlight mixed results. In view of this, this study fills a missing link in the existing body of knowledge in three ways. Firstly, few empirical studies exist in emerging countries on the subject of discussion. Hence, we added to the existing literature by expanding the understanding of this research area of developing countries like Nigeria. Secondly, we document the empirical findings of bank diversification

strategies and its effect on the performance of the Nigerian economy. Thirdly, we further established the fact of the contestation between portfolio theory and risk reduction hypothesis, especially in the relationship between income diversification and bank performance.

**3.Research Methodology**

**3.1.Research Design, Population, and Data Sources**

The research study adopted the positivism research approach since it depended on measurable observations that spur statistical analyses. This aligns with the strand of Collins (2010). The study gathered data from the whole Nigerian banking industry. Data for the study were generated from the World bank global financial data, CBN Statistical Bulletin, and the Nigerian Deposit Insurance Corporation annual reports from 1990-2019. The choice of the periods lies in data availability. Econometric techniques of unit root and VAR model were used to run the regression.

**3.2. Model Specification**

The study adopted the SCP hypothetical model as espoused by Mishra and Sahoo (2012). This model is explicitly presented in Eqs. 1 to 3:

$$\begin{aligned}
 S &= f(C, P, W) \text{-----} 1 \\
 C &= f(S, C, P) \text{-----} 2 \\
 P &= f(S, C, W) \text{-----} 3
 \end{aligned}$$

The study adopted Eq. 3 since it captured the performance model Where P represented the bank performance variable; S represented the market Structure of the bank; C represented the conduct of the bank, and W stood for the other factors which affect bank performance.

Explicitly, this model is expressed as:

$$P_t = \alpha_0 + \alpha_1 S_t + \alpha_2 C_t + \alpha_3 W_t + \mu \text{-----} 5$$

The effect of bank diversification strategies and other variables on economic growth is explicitly expressed below:

$$GDPR_t = \alpha_0 + \alpha_1 RDIV_t + \alpha_2 DDIV_t + \alpha_3 SDIV + \alpha_4 AIFR + \mu \dots\dots\dots 6$$

Where:

GDPR = Gross Domestic Product Growth Rate

RDIV = Revenue Diversification

DDIV = Deposit Diversification

SDIP = Sectorial Loan Diversification

AIFR = Annual Inflation Rate

$\alpha_1, \alpha_2, \alpha_3, \alpha_4$  = Parameters

$\mu$  = Error Term

The a priori expectation of this study posits a positive relationship between bank diversification strategies and the Nigerian economy. It was mathematically expressed as  $\alpha_1 > 0$ ,  $\alpha_2 > 0$ ,  $\alpha_3 > 0$  and  $\alpha_4 > 0$ . For empirical evaluation of diversification model, the variables were transformed as:

$$\ln GDPR_t = \alpha_0 + \alpha_1 \ln RDIV_t + \alpha_2 \ln DDIV_t + \alpha_3 \ln SDIV + \alpha_4 \ln AIFR + \mu \dots\dots\dots \text{Equation 7}$$

where: LnGDPR = Log of Gross Domestic Product Growth Rate, LnRDIV = Log of Revenue Diversification, LnDDIV = Log of Deposit Diversification, LnSDIP = Log of Sectorial Loan Diversification, and LnAIFR = Log of Annual Inflation Rate

### 3.2 Measurement of Variables

Our empirical analysis is based on bank diversification strategies (independent variable) and the Nigerian economy (dependent variable). These proxies were adapted from the works of Sanya and Wolfe (2011); and Brahmanna, Kontesa, and Gilbert (2018), wherein the bank diversification strategies were built using the Herfindahl Hirschman indexation approach. The indexation approach is presented thus:

$$RDIV = \left( \frac{\text{Interest Income}}{\text{Total Revenue Diversified}} \right)^2 + \left( \frac{\text{Fees and Commission}}{\text{Total Revenue Diversified}} \right)^2 + \left( \frac{\text{other income}}{\text{Total Revenue Diversified}} \right)^2$$

$$DDIV = \left( \frac{\text{Time}}{\text{Aggregate Deposits}} \right)^2 + \left( \frac{\text{Savings}}{\text{Aggregate Deposits}} \right)^2 + \left( \frac{\text{Demand}}{\text{Aggregate Deposits}} \right)^2 + \left( \frac{\text{Foreign Currency}}{\text{Aggregate Deposits}} \right)^2$$

$$SLDIV = \left( \frac{\text{Public}}{\text{Total bank loans}} \right)^2 + \left( \frac{\text{Private}}{\text{Total bank loans}} \right)^2 + \left( \frac{\text{Industrial}}{\text{Total bank loans}} \right)^2 + \left( \frac{\text{Services}}{\text{Total bank loans}} \right)^2 + \left( \frac{\text{others}}{\text{Total bank loans}} \right)^2$$

This indexation approach limits RDIV, DDIV, and SLDIV to be positive values. It results in an index that varies from zero (0.00) to fifty percent (0.50). If the HHI is 0 suggests that minimum bank diversification while 0.5 suggests complete diversification.

Wolfe (2011), we measure the financial performance of the Nigerian economy using GDPG. The choice of variable is based on the assumption that GDPG measures how fast the economy is growing. This is done by comparing the current year country's GDP with the previous year. Meanwhile, we added AIFR as the control variable.

Following the works of Brahmanna, Kontesa, and Gilbert (2018) and Sanya and





**4.Results and Discussions**

While Table 1 shows bank diversification data, Table 2 shows the result of the unit root test. LnGDPR, LnRDIV, LnDDIV, and LnAIFR were stationary at level, I(1) while LnSDIV was stationarity at order 2, I(2) using ADF test of the unit root as the values were greater than the critical value at

5%. More so, the probability values associated with the ADF and critical values were all less than 0.05 at 5%. When variables were known to be stationary, the possibility of co-integration revealed the existence of a long-run relationship among variables.

**Table 1: Unit Root Test Results**

Variable	Order	ADF	Critical value	P-value
<b>LnGDGP</b>	I(1)	-4.1023	-3.0810	0.0077
<b>LnRDIV</b>	I(1)	-5.4078	-3.9889	0.0009
<b>LnDDIV</b>	I(2)	-3.7846	-3.0810	0.0138
<b>LnSDIV</b>	I(1)	-5.2592	-3.0989	0.0011
<b>LnAIFR</b>	I(1)	-5.1178	-3.0810	0.0002

Source: E-views 9.0 Extracts

**4.2. Test of Johansen Cointegration**

To establish the existence (or otherwise) of a long-run relationship among the variables (series), a co-integration test was performed using Johansen’s multivariate approach.

Table 2 above suggests two cointegration equation suggesting that log run relationship exist among LnRDIV, LnDDIV, LnAIFR, LnSDIV, and LnGDPR.

<b>Table 2: Johansen Cointegration</b>				
<b>Unrestricted Cointegration Rank Test (Trace)</b>				
Hypothesized	Eigenvalue	Trace	0.05	Prob.**
No. of CE(s)		Statistic	Critical Value	
None *	0.897946	203.4070	139.2753	0.0000
At most 1 *	0.810654	128.0925	107.3466	0.0011
At most 2	0.569950	73.17455	79.34145	0.1332
At most 3	0.467994	45.32734	55.24578	0.2764
At most 4	0.349087	24.50100	35.01090	0.4135
At most 5	0.198494	10.33150	18.39771	0.4491
<b>Unrestricted Cointegration Rank Test (Maximum Eigenvalue)</b>				
Hypothesized	Eigenvalue	Max-Eigen	0.05	Prob.**
No. of CE(s)		Statistic	Critical Value	
None *	0.897946	75.31451	49.58633	0.0000
At most 1 *	0.810654	54.91795	43.41977	0.0019
At most 2	0.569950	27.84720	37.16359	0.3889
At most 3	0.467994	20.82635	30.81507	0.4854
At most 4	0.349087	14.16950	24.25202	0.5720
At most 5	0.198494	7.301692	17.14769	0.6800
<i>Trace test indicates 2 cointegrating eqn(s) at the 0.05 level</i>				
<i>Max-eigenvalue test indicates 2 cointegrating eqn(s) at the 0.05 level</i>				
<i>* denotes rejection of the hypothesis at the 0.05 level</i>				
<i>**MacKinnon-Haug-Michelis (1999) p-values</i>				

Source: E-views 9.0 Extracts

### 4.3. VAR model Result

The result of the vector autoregressive model is reported in Table 3.

**Table 3: Vector Autoregressive Model (VAR) Results**

Dependent Variable: LNGDPG				
Date: 02/01/21 Time: 06:57				
Sample (adjusted): 1990 2019				
Included observations: 28 after Adjustments				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
LNGDPG(-1)	0.897080	0.31880	2.813921	0.0140
LNGDPG(-2)	-0.103254	0.38950	-0.26509	0.1233
LNDDIV	-1.200913	0.86772	-1.38399	0.1233
LNRDIV	-8.963688	2.65574	-3.38151	0.0140
LNSDIV	5.012743	2.35379	2.13602	0.4512
LNAIFR	-0.081292	0.54380	-0.14949	0.6432
C	-2.157181	2.21683	-0.97309	0.7357
<i>R-squared</i>	0.864575	<i>F-statistic</i>	8.51221	
<i>Adjusted R-squared</i>	0.763006	<i>Prob.(f-statistic)</i>	0.00000	
<i>Durbin Watson</i>				1.56310

Source: E-views 9.0 Extracts

The results from the VAR estimate analysis in Table 3 confirm that LnSDIV impacted positively and significantly on Gross Domestic Product Growth Rate LnGDPR. LnRDIV, LnDDIV, and LnAIFR affected negatively, the LnGDPR. A unit increase in LnSDIV contributed to a 5.02 increase in LnGDPR. A unit change in LnRDIV, LnDDIV, and LnAIFR result in 8.96, 1.20, and 0.08 decrease in LnGDPR. However, LnRDIV impacted significantly on

LnGDPR. The total variation in LnGDPR is explained by 76.3%. The dependent and independent variables (LnGDPR are highly fitted at 86.5%. LnSDIV and LnRDIV are the major variables significantly driving the financial performance of economic growth (LnGDPR in Nigeria. This finding is similar to the finding of Brahmana, Kontesa, and Gilbert (2018). Table 4 shows the Granger causality test result.

**Table 4: Granger causality test results**

Null Hypothesis:	Obs.	F-Statistic	Prob.	Decision
LNGDPR → LNRDIV	30	1.69873	0.2019	Accept H <sub>0</sub>
LNRDIV → LNGDPR		1.05187	0.3632	Accept H <sub>0</sub>
LNGDPR → LNAIFR	30	1.34660	0.2770	Accept H <sub>0</sub>
LNAIFR → LNGDPR		10.1708	0.0005	Reject H <sub>0</sub>
LNAIFR → LNDDIV	30	1.69873	0.2019	Accept H <sub>0</sub>
LNDDIV → LNAIFR		1.06325	0.3632	Accept H <sub>0</sub>
LNGDPR → LNSDIV	30	1.70600	0.2006	Accept H <sub>0</sub>
LNSDIV → LNGDPR		4.01396	0.0298	Reject H <sub>0</sub>

→ means does not Granger Cause

Source: E-views 9.0 Extracts

From Table 4, uni-directional causality exists among LNSDIV and LNGDPR; & LNAIFR and LNGDPR. Meanwhile, the

rest variables did not granger cause each other. The implication of the uni-directional relationships is that a short-run



relationship among the variables. This is however contradictory to the finding of Sanya and Wolfe (2011).

### 5. Conclusions and Recommendations

Based on the various findings presented in the earlier section (section 4), the study concludes that LnSDIV positively and significantly affects the LnGDPR. LnRDIV, LnDDIV and LnAIFR affect negatively, LnGDPR. LnSDIV and LnRDIV significantly affect the financial performance of economic growth in Nigerian. LnSDIV and LnAIFR affect the Nigerian economy in the short run. Hence, the paper recommends that policy on stable diversification of economy regime capable of attracting both local and foreign investments in Nigeria should be implemented. There is a need for a more realistic and practicable single-digit inflation policy in Nigeria.

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