



## Diversification and the Performance of Quoted Banks In Nigeria

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### ABSTRACT

*This research centers on Diversification strategy and the Nigerian banking industry's performance within a 22-year period (1999-2020) using time series data of audited reports of the Banks under study. The regressor is Diversification operationalized by Asset, Deposit, Investment and Product Diversification while the dependent variable in the study is Bank performance measured by Return on Equity-ROE. The paper gathered data from the Nigerian apex bank bulletin, 2020 while the sourced data was regressed using the E-views statistical tool (version 9.0). The study evidenced that Asset Diversification posed a high direct effects on bank performance. However, Deposit Diversification exerted high negative effects on bank performance. Further, Investment Diversification has positive/direct and significant/high effects on aggregate return on equity while Product Diversification exerts positive/direct, statistically minimal/insignificant effect on aggregate return on equity. Hence, concludes that diversification is instrumental to the bank performance in Nigeria. Therefore, Nigerian banks should nurture huge trust in asset diversification, create marketable strategies that promote its use and decide which assets should be combined to produce the most effective portfolio. Bank management should place increased emphasis on investment diversification. The ongoing product diversification policies should be sustained with less focus placed on deposit diversification since it exerted negative insignificant effects on DMBs' performance.*

**Keywords:** *Asset diversification, Deposit diversification, Investment diversification, Product diversification, Return on Equity.*

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### I. INTRODUCTION

In the twenty-first century, the banking industry operates in a complex and competitive environment characterized by fluctuating circumstances and a volatile economic climate. Due to the influence of these factors, changes in the way financial services are provided to clients have been evident (Ehiedu, Onuorah &

Okoh, 2021). Banks are the foremost and important part of the financial system; they are intermediators who lend surplus funds to deficit units. As a result, banks often serve as quality controls for successful capital-seeking ventures in well-functioning economies, ensuring higher returns and promoting growth. Deregulations have encouraged banks to diversify their businesses outside their conventional areas of lending and investing. In relevant literature, such actions are referred to as diversification (Buyuran, 2020). The primary goal of the majority of commercial undertakings is not only to provide a service but also to generate a sufficient profit for the shareholders, and the banking industry is not an exception to this rule (Ehiedu & Ogbeta, 2014). Intrinsically, each and every activity and techniques carried out and designed by banks are meant to realize this grand profit-making objective.

Diversification is one amongst the expansion strategies taken on by firms. Osifo & Osagie (2020) asserted that diversification improves corporate companies' performance reason being that it allows for the leveraging of resources to support new projects, thus complementing the final performance of the company firm. They documented that by utilizing prior assets, diversification enables corporate enterprises to develop the necessary exigency for increasing shareholders' value. Diversification is done in diverse forms which might assume penetration, development of the market and development of products. When an organization needs to expand, take advantage of economies of scale, or boost revenues, diversification strategies are implemented. The term 'diversification' has been referred to as a technique that permits a corporation to urge towards a business that's not associated with its current business and which enables it to provide new products for brand new and existing markets. Technological advancements, new entrants and therefore the evolution of banking innovations have seen changes in ways within which consumer's access and demand various products and services and the way organizations operate. Organizations that seek to survive various business cycles or to remain competitively ahead of others hunt for means to diversify. Nigeria's banking sector has witnessed significant growth in deposits, assets, products offering over the previous couple of years. The players in this sector are now faced with so much contention owing to improved technology and increased number of industry players. With such competition banks are subtly coerced to use diversification strategies to enable their survival within the industry.

Banks have been under pressure from competition due to increase in their involvement in unconventional intermediation methods like investment banking, banc-assurance and delving into previously dangerous industries (Gamra and Plihon, 2011). Diversification is an important study topic for financial intermediaries in both underdeveloped and advanced economies, since banks' operations have expanded outside the conventional boundaries and intermediary roles they perform between the excess and deficit unit of the economy but into different sorts of activities within the financial market (Olawaju, Titilayo & Stephen, 2017). Even though banks profit from diversification in terms of economies of scale, the process may also make agency issues worse (costs) thanks to the actual fact that managers (insiders) may expand the financial activities within the bank as long as the institution's diversification strategy grants them personal benefits (Olawaju et.al, 2017).

However, in order for banks to really accomplish the ultimate objectives of diversification in all ramifications, there must exist proper supervision of the diversification activities involved. On the other hand, for some Banks (DMBs) in Nigeria, instead of diversification to engender an improved banks' performance, it often leads to crisis and they continue to struggle to remain solvent, liquid and strive for survival despite the fact that they render more services than their traditional roles. Instead of diversification to diminish agency problem faced by DMBs, the problem keeps increasing that several of these banks continue to go into Mergers over and again. Could it be that the ventures diversified into are not properly managed or diversification has no substantial effect on Banks' financial performance? It is not possible for banks to reduce agency costs and maximize shareholders' wealth without necessarily widening their investment tentacles via diversification so as to reap the huge benefits. Surprisingly, Banks continue to strive towards survival despite the level of their diversification of loans, deposits, assets and liabilities (Olawaju et.al, 2017). It is a known fact that diversification also exposes a bank to several kinds of risks and if the management team lacks the necessary expertise to manage these risks efficiently and effectively, it can lead to disastrous outcomes for the bank. Hence, it may lead to conflict of interest between the banks and investors (Olawaju et.al, 2017).

Numerous studies have examined the banks' profitability in order to uncover the factors that create variations in the earnings of Banks in Nigeria because the banks' performance is such a pressing topic. It appears that majority of the studies on diversification focus more on income diversification strategy only and its impact on bank performance. Therefore, In regards to diversification as a strategy, this study takes into consideration four different diversification strategies which includes Asset Diversification (proxied by lending and non-lending assets), Deposit Diversification (proxied by demand deposit, savings deposit, time deposits, certificate of deposits CDs, and the deposits by other financial institutions), Investment Diversification (proxied by stocks, Loans and advances, government securities) and Product Diversification (proxied by online banking services, use of Automated Teller Machines, agency banking and so on). These diversification strategies are the independent variables while dependent variable is Return on Equity (ROE) which serves as a proxy for Banks'

Performance. Diversification's impact on the banks' performance has been the subject of some studies. Osifo (2020) examined foreign diversification and banks' performance, Vidyarthi (2019) looked into Dynamics of income diversification and DMBs' performance in India, Adeleke, Odebeatu & Adeoye (2018) investigated product diversification as a strategy for banks' survival. Olarewaju, Migiro & Sibanda (2017) examined Operational Diversification and banks' performance in Sub-Saharan Africa. Sameh & Hellara (2017) studied Diversification and DMBs' performance using a simultaneous equation approach. Thus, this paper analyses different Diversification strategies (Asset, Deposit, Investment and Product) and how they affect the performance of Nigeria's quoted banks.

## **II. LITERATURE REVIEW**

### **A. Concept of Diversification**

Diversification is a kind of corporate level strategy that Organizations utilize in order to maintain their competitiveness and increase their profitability (Reza, Reza & Banafsheh, 2015). Diversification gives firms the opportunity to maximize value by enlarging the extent of markets and industries in which they compete and supply product offers to new and prospective customers (Purkayastha, Manolova, & Edelman, 2012). Diversification strategies can be pursued to enhance a firm's growth when the additional three strategies fail to produce desired objectives (Hussain, 2013). It is paramount to separate diversification strategies from diversification types. The former could include licensing of new technologies, firm acquisition, creating innovative products internally, and forming alliances (Ehiedu, Odita & Kifordu, 2020). Diversification's goal is to enable organisations introduce business areas which are distinct from those of the firm's current ones. (Manyuru, Wachira & Amata, 2017). The four different diversification approaches that are of interest to us in this study are Asset, Income, Deposit and Investment Diversification.

### **B. Concept of Bank Performance**

A company's annual financial accounts and reports are often reviewed by investors to assess the company's past and present financial performance so as to make predictions about its future financial performance and measure the value it adds each year. The results of financial management in corporations with other business activities are displayed on firms' financial statements at the end of the fiscal year and measured by financial indicators. (Ngo & Dang, 2016). It is revealed that the company's financial statements should have valuable information (about its performance and fiscal health) which can serve as a reliable and useful guide for decision making. Statements usually consist of 5 components, namely (1) Statement of financial position (2) income statement, (3) statement of owner equity, (4) statement of cash flows, and (5) notes to the financial statements. The financial statements could cause a market reaction (the behavior of investors and other market participants in the transaction either buy or sell stocks) when it contains accurate information. In the most recent analysis, profitability, liquidity, solvency, financial efficiency, and repayment capability are used to gauge financial performance (Felicia & Akin, 2018; Anwaar, 2016).

### **C. Theoretical Exposition of Relationships between Hypotheses Variables**

The study links Assets diversification, deposits diversification, investment diversification and product diversification with Banks' performance.

#### **a. Asset diversification and Banks' performance**

Asset Diversification refers to the act of dividing one's investable capital between different asset classes to manage risk better (Tavaga, 2022). It was first coined by Harry Markowitz in 1952. Broad diversification wherein investors distribute their investments into over several asset classes including large, mid or small cap stocks such as energy, healthcare, financial or technology stocks; or even investing in emerging markets, many investors mistakenly believe they have achieved appropriate diversification. They have basically made investments in a number of equities asset class sectors, and as a result, they are susceptible to market ups and downs. The relationship between asset classes might alter over time, thus close monitoring is crucial. To mitigate against investment risks, investors should avoid choosing investments that are highly correlated (Ayeola, Ismail & Sufahani, 2017). Hence, the paper hypothesizes:

H<sub>0</sub>: Asset Diversification affects Nigeria banks' performance minimally.

#### **b. Deposits diversification and DMBs' performance**

The goal of this diversification approach is to shield banks from liquidity risk exposures, particularly when their borrowing capacity is limited or expensive. This risk can be brought on by unanticipated customer withdrawals or an increase in the number of acceptable loan requests. (Tavaga, 2022). To be specific, accounts (demand, saving, time deposits) increases the effectiveness of bank borrowing, which will lower cost of lending. Hence, the paper hypothesizes:

H0<sub>2</sub>: Deposits diversification affects Nigeria banks' performance minimally.

**c. Investment diversification and DMBs' performance**

Putting all of your eggs in one basket is a dangerous move, according to Gupta (2011). As a result, diversifying your portfolio of investments is a key financial principle. The chance of a sudden/unexpected outcome is reduced by spreading investments among several unrelated investments (Matthew, Yusufkibet & Bokongo 2016). Diversification among different asset classes is pertinent as it reduces a portfolio's sensitivity to market swings (Onuorah & Osuji, 2014). Hence, the paper hypothesizes:

H0<sub>3</sub>: Investments diversification affects Nigeria banks' performance minimally.

**d. Product diversification and DMBs' performance**

This is a tactic employed by a business to boost profitability and achieve higher sales volume from new products. It can take place at the corporate level or at the business level. More options and variety for products and services are made possible by diversification. If done right, diversification significantly improves a company's profitability and brand image (Githaiga, 2021). There are various product diversifications for banks which include agency banking, bancassurance, electronic cards system, mobile banking system and so on (Ehiedu et. al., 2021). Hence, the paper hypothesizes:

H0<sub>4</sub>: Product diversification affects Nigeria banks' performance minimally.

**D. Theoretical Framework**

The Market power theory-MPT and the Resource Based View theory RBVT, are used to underpin this study. The MPT argument builds from Porter in 1980 as cited by Mulwa et.al, (2016). The theory asserts that a corporation should be positioned in its surroundings utilizing a variety of strategies to distinguish itself out from its rivals. Diversification serves as one of such strategies to overcome competition (Mulwa et.al, 2016) and enables a firm build strong market powers (Adem, 2022). Companies can gain market dominance through diversification in three different ways: cross-subsidization. As such, the theory posits a favorable correlation between performance and diversification.

The RBVT on its own, is a strategy to position a business unit as a foundation for a multi-business firm and emphasizes the firm's ability to exploit the potential synergies between resources to produce higher performance as postulated by Wernerfelt in 1984, Barney in 1991, Teece et al., in 1997 and Montgomery, 1994 (Adem, 2022). The RBVT technique uses Porter's five competitive forces to identify the conditions under which a firm's resources produce high returns over extended periods of time. Since the possession of a resource by one party has a negative impact on the costs and/or revenues of later acquirers, it explains how resource benefits accrue to a firm by assuming the existence of resource position barriers that allow the holders of a resource to maintain a sustainable competitive advantage over other holders and third parties. The holder can be considered to benefit from a resource position barrier or a first mover advantage in such a situation (Lieberman and Montgomery, 1988). The RBV theory not only provides a prescription for improving a firm's financial performance but also recommends diversification by building on the resource capacities to enter new markets.

**E. Prior Empirical Studies**

Adem (2022) analyzed the effect of diversification on bank stability between 2000 and 2020 using panel data encompassing 45 African countries. Findings show a quadratic relationship between diversification and stability; excessive diversification exposes banks to risk.

Addai, Tang, Gyimah & Twumasi (2022) reported that, while corruption dramatically lowers bank performance, income diversification increases banks' profit and risk-adjusted profit 715 banks across 52 African nations. Also, countries with high corruption index experiences are not highly diversified.

Using the Generalized Method of Moments (GMM), Krishnan, Lunawat & Lunawat (2022) found that, geographic, functional, and loan portfolio diversification is instrumental to the stability of the 48 selected banks in India.

Similarly, Uddin, Majumder, Akter & Zaman (2021) used unbalanced panel data approach with specific focus on 32 banks from 2007 to 2016. Findings indicates that a strong positive/direct correlation among asset and income diversity and bank performance.

In separate studies, Githaiga (2021) and Nguyen (2018) reported that income/revenue diversification significantly influence bank performance from 2010-2018 and between 2007-2014 respectively. More so, while banks with more diversified funding experiences higher profit efficiency, banks with more diversified assets only experience higher persistent profit efficiency, (Ehiedu, & Olanye, 2014).

Using the primary data approach, Maurizio, Tiziana and Javier (2018) reported that, related diversification has a negative effect, while unrelated diversification is a value-creating strategy.

Again, Wachira, Manyuru and Amata (2017) and Ranka, Vladimir & Dragan (2017); & Onodugo, Onur and Ihsan (2016) in separate studies affirmed that, geographical diversification does not significantly affect business value, however industry diversification lowers firm value.

Using the primary data approach, Makhoha, Namusonge and Sakwa (2016), Rop, kibet and Bokongo (2016) reported that, portfolio diversification improves firm performance in Kenya having focused on a sample of 43 and 40 banks, respectively.

Conversely, Mulwa and Kosgei (2016) found that, geographic diversification has a positive/direct yet substantial impact on ROA and ROE whereas its impacts on income and asset diversification are negative.

**a) Gap in Literature**

From the literature reviewed, there appears to be a series of diverse empirical findings. However, this might just be the outcome of the sampled nations, technique used, data coverage, and researchers' selection of study variables, among other unaccounted-for factors. Hence, this study therefore attempts to bridge the space by covering some wider diversification strategies like asset, deposits, products and investment diversification strategies against banks' performance in Nigeria from 1999 to 2020 than others.

**III. RESEARCH METHODOLOGY**

**A) Research Design, Population, and Sample Size**

The ex post facto design served as the study's research design. On the whole, the study covered the whole quoted Deposit Money Banks as at 31<sup>st</sup> December, 2021. Informed on the ground of data availability/consistency, ten banks (Zenith Bank Plc, Access Bank Plc, Guarantee Trust Bank Plc, First Bank Plc, First City Monument Bank, Sterling Bank, United Bank for Africa, Union Bank, Wema Bank and Ecobank Plc) were chosen for the study. Sample period adopted was 1999 to 2020 (22years). This culminated to 220 firm observations. Data were generated from the audited, annual financial statements/reports of the sampled banks as quoted on the Nigeria Exchange Group (NEX).

**B) Estimation Techniques**

The Panel least square estimation served as the estimation techniques. This was conducted using the E-view statistical software [version 9.0].

**C) Model Specification**

In an attempt to answer the research questions, the study adopted the Panel Least Square (PLS) in line with the findings of Gordini and Rancati (2017). The model is mathematically represented as follows:

$$ROA = f(ASTD, DEPD, INVD, PROD)$$

$$ROA = \beta_0 + \beta_1 ASTD + \beta_2 DEPD + \beta_3 INVD + \beta_4 PROD + U_t \dots \dots \dots (2)$$

Where:

- ROA = Returns on Asset
- ASTD = Asset Diversification
- DEPD = Deposits Diversification
- INVD = Investment Diversification
- PROD = Product Diversification
- $\beta_1, \beta_2, \beta_3$  and  $\beta_4$  = Beta coefficient values.
- $U_t$  = Regression error term

**D) Variable Description and Apriori Expectation**

Table 1 account for variable description and Apriori expectation:

**Table 1: Variable Description and Apriori Expectation**

Denotation	Variable	Nature of Variable	Measurement	Apriori expectation	Reference
ASTD	Assets diversification	Regressor 1	$1 - \left[ \frac{\text{Net Loans}}{\text{Total Earning Assets}} \right]^2 + \left[ \frac{\text{Other Earning}}{\text{Assets/Total Earning Assets}} \right]^2$	+	Mulwa & Kosgei (2016)
DEPD	Deposits diversification	Regressor2	$\frac{(\text{demand}/\sum \text{deposits})^2}{(\text{savings}/\sum \text{deposits})^2} + \frac{(\text{time}/\sum \text{deposits})^2}{(\text{CDs}/\sum \text{deposits})^2} + \frac{(\text{banks}/\sum \text{deposits})^2}{(\text{banks}/\sum \text{deposits})^2}$	+	Ibrahim (2014)
INVD	Investment diversification	Regressor 3	$\delta_p^2 = c_1^2 \delta_1^2 + c_2^2 \delta_2^2 + 2c_1 c_2 \delta_1 \delta_2 \rho$ Where; $\delta_1$ and $\delta_2$ are Standard Deviations of the two underlying assets, $C_1$ and $C_2$ , $\rho$ is correlation between the assets, $C_1$ and $C_2$ are the respective proportions of the two assets in the portfolio.	+	Vaibhav & Ramasubramanian, (2015)
PROD	Products diversification	Regressor 4	Average measurement of the product mix offered by sampled banks	+	Zedek (2016)
ROA	Return on Asset	Regressand 1	Ratio of average asset to net income	Nil	Gordini & Rancati (2017)

**Source: Researcher's computation, 2021**

IV. RESULTS AND DISCUSSION

Trend analysis of Variables

Figures 1 and 2 below show the trend of movement of Asset, Deposit Diversification, Investment Diversification, and Product Diversification of the Nigerian banking industry alongside its performance:

Figure 1: Trend Analysis of Portfolio Diversification

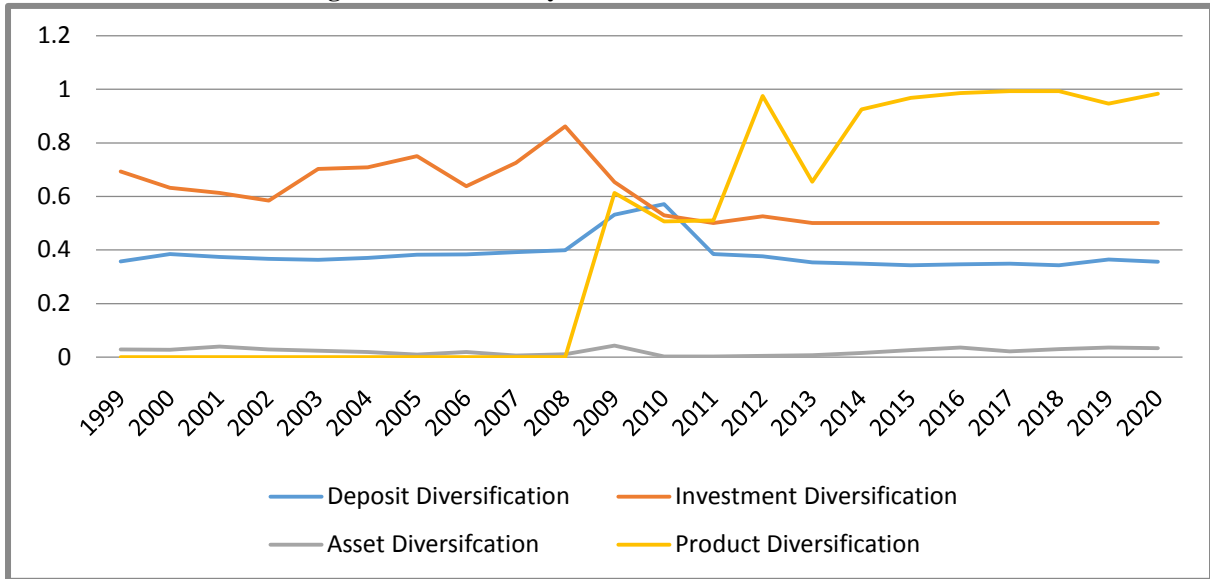


Figure 1: Trend Analysis on Bank Diversification Strategy

Source: Researcher’s Computation (2022)

Figure 1 above depicts that there have been upward and downward movement in asset, deposit investment diversification, asset diversification, and product diversification. Accordingly, the trend analysis in figure 1 above revealed that on the average, the Nigerian banking industry is diversified in terms of its asset base. Meanwhile, its investment mix, and deposits are highly concentrated. However, its product is predominantly diversified.

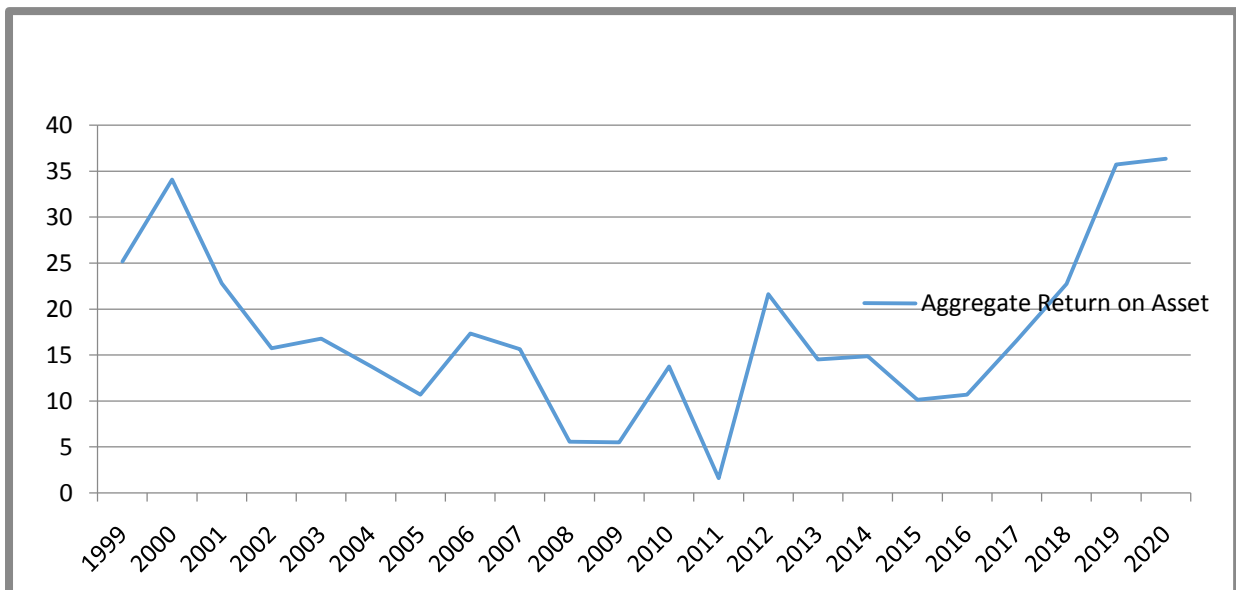


Figure 2: Trend Analysis of Bank Performance

Source: Researcher’s Computation (2021)

Figure 2 above depicts that its aggregate return on asset is far better than its aggregate return on asset throughout the study period. However, the both variables reported downward upward trend throughout the study

period. This therefore cast doubt if truly the Nigerian banking industry’s overall performance has been impressive throughout the study period.

**Descriptive Statistics**

The descriptive statistics takes into consideration the mean (average) value, maximum(highest) and minimum (lowest) value, and Standard deviation (variation) value. The result is therefore presented in table 2 below:

**Table 2: Descriptive Statistics for all Study Variables**

	<b>ROA</b>	<b>ASTD</b>	<b>DEPD</b>	<b>INVD</b>	<b>PROD</b>
Mean	17.36000	0.020709	0.383959	0.596100	0.457082
Median	15.69500	0.021700	0.368800	0.556300	0.508550
Maximum	36.34000	0.042300	0.570900	0.861300	0.993300
Minimum	1.630000	0.001700	0.343200	0.500000	0.000000
Std. Dev.	9.330061	0.012544	0.056855	0.107588	0.451358
<b>Observations</b>	<b>220</b>	<b>90</b>	<b>90</b>	<b>90</b>	<b>90</b>

**Source: Econometric Views Version 9.0. (2021).**

Table 2 clearly revealed that on the average return on asset (ROA) is 17.36000. Comparably, it reported a low standard deviation value estimated at 9.330061. This suggests that it ROE did not deviate much away from the mean value. Again, deposit diversification denoted by DEPD reported an average value of 0.383959 throughout the study period. However, it reported a maximum (highest) and minimum (lowest) of 0.570900 and 0.343200 respectively. Moreover, it reported a low standard deviation value. This is because it is comparably lower than its mean value. This suggests that the variable deviated much away from the mean value.

Furthermore, asset diversification reported an average value of 0.020709 but fluctuated by 0.056855. However, it reported a maximum (highest) and minimum (lowest) of 0.042300 and 0.001700 respectively. Moreover, it reported a low standard deviation value.

Additionally, investment diversification reported an average value of 0.596100 but deviated by 0.107588. However, it reported a maximum (highest) and minimum (lowest) of 0.861300 and 0.500000 respectively. Moreover, it reported a low standard deviation value.

Lastly, product diversification reported an average value of 0.457082 but fluctuated by 0.451358. However, it reported a maximum (highest) and minimum (lowest) of 0.993300 and 0.451358 respectively. Moreover, it reported a low standard deviation value.

**Correlation Analysis**

The correlation analysis tells the direction and degree of relationship between and among variables. Table 3 accounts for the correlation analysis:

**Table 3: Pearson Correlation Analysis of all Study Variables**

	<b>ROE</b>	<b>ASTD</b>	<b>DEPD</b>	<b>INVD</b>	<b>PROD</b>
ROE	1.000000				
ASTD	0.598715	1.000000			
DEPD	-0.283962	-0.138846	1.000000	0.161439	
INVD	0.626597	-0.118068	0.161439	1.000000	
PROD	0.713026	0.131041	-0.129562	-0.116162	1.000000

**Source: Econometric Views Version 9.0. (2021).**

**REGRESSION RESULT**

The panel least square estimate was used to test the research hypotheses as stated in table 4:

**Table 4: Panel Least Square Estimates**

Dependent Variable: ROA				
Method: Panel Least Squares				
Date: 10/02/21 Time: 23:24				
Sample: 1999 2020				
Included observations: 220				
<b>Variable</b>	<b>Coefficient</b>	<b>Std. Error</b>	<b>t-Statistic</b>	<b>Prob.</b>
C	7.031106	3.317190	2.119597	0.0539
ASTD	0.666841	0.299238	2.228464	0.0428
DEPD	-0.041057	0.034613	-1.186169	0.2529
INVD	0.577174	0.182996	-3.154018	0.0253
PROD	0.791233	0.123379	6.413021	0.0000
R-squared	0.672523	Mean dependent var		5.407107
Adjusted R-squared	0.638177	S.D. dependent var		0.343692
F-statistic	28.31522	Durbin-Watson stat		1.955290

**Source: Econometric Views Version 9.0 (2021)**

The study evidenced that there was variation of 67.72% on return on asset due to changes in ASTD, DEPD, INVD, and PROD while the remaining 33.28% account for error term. To further substantiate this, the study reported an adjusted R<sup>2</sup> value of 63.82%. Again, the global statistics revealed that portfolio diversification proxies jointly affect banks' performance (ROA) significantly. Lastly, the Durbin Watson Statistics estimated at 1.955290 revealed that the model is not serially auto-correlated.

**Table 5: Summary of Test of Hypothesis**

Variables	Prob.	Conclusion
ASTD	0.0428	Reject H <sub>01</sub>
DEPD	0.2529	Accept H <sub>02</sub>
INVD	0.0253	Reject H <sub>03</sub>
PROD	0.0000	Reject H <sub>04</sub>

Source: Researcher's Compilation (2021)

## V. Discussion of Results

The Panel Least Square result in table 4 reported that asset diversification exerts positive coefficient value of 0.666841. This implies that 1% rise in asset diversification (ASTD) will increase bank performance by 66.68%. This is in line with the apriori expectation of this study. More so, asset diversification passed the test of statistical significance. The implication is that a high degree of ASTD has a high statistical significant effect on bank performance. This result is in line with the findings of Mutega (2016) and Yan, et'al (2016) but contradicts the findings of Chen, Liang & Yu (2018) whose result indicates that diversification generally has a negative effect on the performance of conventional banks.

Additionally, deposit diversification (DEPD) exerts negative effect on return on asset. This is because its coefficient value is negatively signed (-0.041057). Further, it failed the test of statistical significant. This is because its p-value greater than 5% level. The implication is that deposit-based diversification had a marginally significant effect on bank performance. This result is in line with the findings of Hailu & Tassew (2018); Maurizio et'al (2018); Nepali (2018) but contradicts the findings of Ranka et'al (2017); Kipleting & Bokongo (2016).

Furthermore, investment diversification has positive (0.577174) yet significant (0.0253) effect on banks' performance. The implication is that a high degree of INVD improves bank performance significantly. This further revealed that banks can benefit from investment diversification if they diversify into different forms of investments. This result is in line with the findings of Hailu & Tassew (2018); Nepali (2018) but contradicts the findings of Kipleting & Bokongo (2016).

Lastly, product diversification is instrumental to banks' performance in the reviewed periods. This result is in line with the findings of Shim (2019); Rop et'al (2016); Kamwaro (2016) but contradict the findings of Odunayo, et'al (2017); Makokha, et'al (2016).

## VI. CONCLUSION AND RECOMMENDATIONS

Findings emanating from the study clearly revealed that asset diversification, investment diversification, and product diversification exerted positive high effect on bank performance in Nigeria. Meanwhile, deposit diversification exerted negative yet statistical minimal effect on Nigerian banks' performance. As a result, the study draws the conclusion that quoted banks' performance in Nigeria benefits from diversification. Hence, the study recommends that, the Nigerian banking industry's managements should:

1. develop marketing policies that encourage its use and establish the best combination of assets that can yield an efficient portfolio.
2. ensure that deposit related issues are addressed since deposit mobilization exerted insignificant impact on bank performance.
3. ensure that diversifiable investment risks are addressed since it reported positive/direct significant/high effect on bank performance.
4. the present product diversification policies are sustained.

## REFERENCES

- [1]. Adedeji A.O. and O. A. Adedeji (2018). Effect of Non-interest Income on Banks' Profitability in Nigeria. *Journal of Economics, Management and Trade* 21(9), 1-10
- [2]. Adem, M. (2022) Impact of Diversification on Bank Stability: Evidence from emerging and developing Countries. *Discrete Dynamics in Nature and Society*. 2022(2), 1-12
- [3]. Arubayi, D.O., Onuorah, A.C. & Egbule A.C.S. (2020). Examining Employee Relationship Management and Employee Performance through Reward: Evidence from Nigeria. *International Journal of Management* 11(8), 380-393
- [4]. Buyuran B. Ibrahim H.E. (2020). Revenue Diversification and Bank Performance: Evidence from Turkey. *South-Eastern Europe Journal of Economics* 1 (2020) 7-18
- [5]. Ehiedu, V.C. & Ogbeta, M. (2014). An Investigation into the Internal Control System in the Banking Industry. *European Journal of Business and Management* 6(9), 149-155. International Institute for Science, Technology & Education (IISTE)



- [6]. Ehiedu, V.C., Oditia, A.O. & Kifordu, A.A. (2020). Financial integration and growth volatility nexus: The Nigeria experience. *Webology* 17(2), 404-415
- [7]. Ehiedu, V.C., Onuorah, A.C. & Okoh, E. (2021). Automated teller machine (ATM) penetration and financial inclusiveness in Nigeria: A tripod banking system approach. *Indian Journal of Economics and Business*. 20(3), 1093-1104. Ashwin Anokha Publications and Distributions.
- [8]. Ehiedu, V.C., Olanye P. (2014). Mergers and acquisition as instrument of corporate survival and growth. *European Journal of Business and Management*. 6(8), 151-156. International Institute for Science, Technology & Education (IISTE).
- [9]. Krishnan C., Lunawat C.A.D. & Lunawat C.A.A. (2022). The impact of diversification on bank stability in India. *Cogent Business & Management*. 9(1)
- [10]. Makhoha, A., Namusonge, G.S & Sakwa, M. (2016). Effect of Portfolio Diversification on Commercial Banks Financial Performance in Kenya. *International Journal of Business and Management Invention* 4(1), 227-245
- [11]. Manyuru, A. Wachira, M. & Amata, E. (2017). The impact of corporate diversification on firm value in Kenya. *African Journal of Business Management*. 11(11), pp. 241-249, 14 June, 2017. DOI: 10.5897/AJBM2017.8275
- [12]. Matthew K.R, Yusufkibet D. & Bokongo J. (2016) Effect of Investment Diversification on the financial Performance of Commercial Banks in Kenya. *IOSR Journal of Business and Management*. 18(11), 102-115
- [13]. Maurizio, L. R., Tiziana L. R. F. & Javier, S. V. (2018). Multi-business firms and performance in Italy. What role does relatedness play? *European Research on Management and Business Economics* 24 (2018) 63–70
- [14]. Mulwa J.M. & Kosgei D. (2016). Commercial Bank Diversification and Financial Performance: The Moderating Role of Risk. *Journal of Finance and Investment Analysis*, 5( 2), 31-52
- [15]. Nwakoby N. P. & Ihediwa A. (2018). Effect of Diversification on the Financial Performance of Selected Firms in Nigeria. *International Journal of Advanced Academic Research / Social & Management Sciences*, 4(12)
- [16]. Olarewaju O.M., Migiro S.O. & Mabutho S. (2017). Operational Diversification and Financial Performance of Sub-Saharan Africa Commercial Banks: Static and Dynamic Approach. *Acta Universitatis Danubius. Economica, Vol 13, No 5*
- [17]. Onodugo, I C., Benjamin A. A., & Nwuba, B. N. (2015). Diversification of the economy: A panacea for Nigerian economic development. *International Journal of Multidisciplinary Research and Development*.
- [18]. Onuorah A.C. & Ogbonna G.N. (2016). Capital structure performance and the determinant factors in Nigeria. *International Journal of Empirical Finance, Research Academy of Social Sciences*. 5(2), 69-77.
- [19]. Onuorah A.C. & Osuji C.C. (2014). Exchange rate and the economic development in Nigeria. *International Journal of Management Sciences* 4(2), 27-54
- [20]. Onuorah A.C. (2018). Role of non-oil exports in the economic growth of Nigeria. *Journal of Emerging Trends in Economics and Management Sciences* 9(3)
- [21]. Osifo O. & Osagie E.I. (2020) Foreign Diversification and Performance of Quoted Banks in Selected Sub-Sahara African Countries. *Oradea Journal of Business and Economics*, 5(1)
- [22]. Purkayastha S., Manolova T.S. & Edelman L.F (2012). Diversification and Performance IN Developed and Emerging Market Contexts: A review of the Literature. *International Journal of Management Review*, 14(1), 18-39
- [23]. Ranka K., Vladimir N. & Dragan, S. (2017). Effects of corporate diversification on firm performance: evidence from the Serbian insurance industry, *Economic Research Ekonomiska Istraživanja*, 30(1), 1224-1236, DOI: 10.1080/1331677X.2017.1340175
- [24]. Rop, K.M., Kibet, D.R. & Bokongo.J.(2016). Effect of Investment Diversification on the Financial Performance of Commercial Banks in Kenya. *Journal of business and management*. 4(2), 221-245