

# Dynamics of Financial Development and Economic performance in Nigeria

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## Abstract

*This work examined financial development and economic performance in Nigeria spanning the period 1995-2021. The objective of the study was to determine the effect of financial development on economic performance in Nigeria. Market capitalization – GDP ratio, broad money supply – GDP ratio, credit to private sector – GDP ratio and bank credit – deposit ratio were the dimensions of financial development considered which constituted the independent variables; while Gross Domestic Product (GDP) was used to proxy economic performance. The secondary data for the study were sourced from Central Bank of Nigeria (CBN) statistical bulletin and was analyzed using the vector error correction mechanism (VECM). The results of the analysis showed the existence of long run relationship between financial development and economic performance but with no significant impact. Also revealed on individual note was the fact only gross domestic product (gdp) lagged one period and market capitalization to gross domestic product ratio (mcap/gdp), had significant impact on economic performance in Nigeria in the long run. These outcomes, led to the conclusion that financial development drives economic performance but with no significant impact in Nigeria. It was then recommended that Financial institutions should be brought closer to the people in order to further deepen the provision of financial services in Nigeria.*

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**Keywords:** Financial Development, Dynamics, Economic Performance

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## Introduction

Economic performance also referred to as economic growth has remained a key macroeconomic objective of nations, whether under-developed, developing or developed. This is as a result of its direct impact on the level of standard of living of citizens in a country. Ndukwu (2018) observed that as production capacity rises, income increases, and consumers can afford to buy more goods and services. With higher incomes and increased production, there would always be the tendency to work in synergy for increased productivity. The cycle continues as productivity in the factors of production rapidly grows real gross domestic product (RGDP). Consequently, consumers may benefit from more job opportunities, and the government can use tax revenues to spend on public

services. The foregoing exemplifies the significant influence of economic performance on the standard of living of citizens of a country.

Economic performance and the expansion of production capacity comes from technological change and capital accumulation. If a country puts all its resources to produce goods and services, and none of its resources to accumulate capital, its production capacity will remain unchanged. There is essentially a tradeoff between more production now and economic growth/performance in the future. It is on literature that for a country to achieve increased future consumption, they must decrease the production of goods and services for current consumption. The foregone current consumption is the opportunity cost of economic growth. However, Ghildiyal, Pokhriyal and Mohan (2015) were of the view that for an economy to grow and develop, the financial sector must be well developed. This is because the financial sector of a country through their financial intermediation process facilitates mobilization of savings and turns same into the capital needed for economic growth. This accelerates the level of economic activities that enhances economic growth within a given country. Hence, financial development is a *sine qua non* for enhanced or good economic performance.

Financial development is described as the depth of financial services in a country. It is associated with the extent to which financial services can be accessed by citizens at any given time. Okafor, Bowale, Onabote, Afolabi and Ejemeyowvi (2021), noted that it includes the growth and development of financial markets, financial intermediaries and financial institutions to make available financial resources in order to facilitate improved economic performance. A financial system that is properly developed would enable the correct mobilization of resources to ensure its optimum use. An imperative role of financial development is the reduction of poverty (Hassan, Sanchez and Yu, 2011). In essence, finance plays a crucial role as it ultimately determines the economic growth and development of countries. Similarly, economic growth theory over time has claimed that financial sector innovations enhances financial sector development and the economy as a whole. Thus, financial development is a broad concept that can be measured using different measures like financial depth, bank size, stock market size, turnover ratio etc (Guru and Yadar, 2018).

There is no gain saying the fact that plethora of related studies on financial development and economic performance abounds. But, there are dearth of empirical studies with respect to the Nigerian economy. Also, available studies have produced conflicting results with either positive or negative significant impacts at different points. Also, further studies like that of Guru and Yadar, (2018); Karimo and Ogbonna, (2016); and Udoh, Jack, Prince, Ekeowa, Ndubuaku and Samuel (2021), have shown unidirectional, bi-directional and none directional relationships/impacts, and the debate is still ongoing. It was in a bid to determine the direction of actual impact of financial development on economic performance that this study was undertaken.

### **Literature Review**

Financial development is closely associated with financial access or financial deepening. It is regarded as the increase in provision of financial services with a wider choice of services geared towards the development of all levels of society. On other hand, the level of financial development is a reflection of the soundness of the financial sector and the ability with which

credits are created with respect to lending and deposit rates (Okafor, 2017). Most importantly, if the increase in the supply of financial assets is small, it means that financial development in an economy is most likely to be shallow, and vice versa. Accordingly, Hassan, Sanchez and Yu (2011) asserted that financial development has to do with the growth and development of financial markets, financial intermediaries and financial institutions to make available financial resources in order to facilitate improved economic performance. The World Bank (2009) defined financial development as the increase in the stock of assets. According to Nzotta (2004), financial deepening / development is a process involving specialization in financial functions and institutions through which organized domestic institutions and markets relate to foreign markets. In addition, an increase in the real size of the monetary system will also generate opportunity for the profitable operations of other institutions.

Therefore, a financial system that is properly developed would enable the actual mobilization of resources to ensure its optimum use. Thus, Nnanna and Dogo (2008) submitted that financial deepening refers to a financial system that is largely free from financial repression. It is invariably the end product of accepting appropriate real finance policy such as relating real rate of return to real stock of finance. Financial development cuts across all spheres of financial institutions and there are lots of measures that have been put forward for measuring financial development. According to Adusei (2013), these measures are broadly divided into bank and non-bank measures. The former include – financial depth, bank size, credit to deposit ratio and domestic credit to private sector. Guru and Yadar (2018) gave stock market size, value of shares traded and turnover ratios as stock market development indicators.

Nnanna and Dogo (2008) submitted that financial development is measured by relating monetary and financial aggregates such as  $M_1$ ,  $M_2$  and  $M_3$  to Gross Domestic Product (GDP). Uchenna (2019) opined that since financial development means an increase in the supply of financial assets in an economy, it is important to develop some measures of the widest range of financial assets, including money. This range of financial assets includes but not limited to broad money ( $M_2$ ), liabilities of bank and non-bank financial institutions, treasury bills, value of shares and money market fund. The sum of these financial assets can thus approximate the widest measures of financial deepening (Fry, 1978). However, financial deepening theory defined the positive role of the financial sector on economic growth by the size of the sector's activity. This means that an economy with more intermediary activities is assumed to be doing more to generate efficient allocations. Hence, the size of the financial sector is usually measured by two basic quantitative indicators: monetization ratio and intermediation ratio. Whereas monetization ratios includes money-based indicators or liquid liabilities like broad money supply to GDP ratio, intermediation ratios consists of indicators related to bank-based measures like bank credit to the private sector to GDP ratio; and capital market based measures such as capitalization ratio of stock market to GDP (Ndebbio, 2004). Therefore, financial development entails the depth of financial service delivery to all strata of society. In other words, it is the increased provision of financial services with a wider choice of services geared to all levels of society. This translates to the ability of financial institutions in an economy to effectively mobilize savings for investment purposes.

Economic performance on the other hand connotes economic growth, which simply means changes in quantity. According to the Department for Business, Innovation and Skills (2011) of the United Kingdom, economic growth is the continuous improvement in the capacity to satisfy the demand for goods and services, resulting from increased production scale and improved productivity. This implies that economic growth is associated with sustained increase in the output of a country and this increase must be enough to meet up with the demands of the citizens of a given country. Similarly, Dwivedi (2008) stated that economic growth means a sustained increase in per capita national output or net national product over a long period of time. This means that the rate of increase in total output must be greater than the rate of population growth.

Economic theories posit that sound and efficient financial development channels capital to its most productive uses and are beneficial for economic growth. They are important in sustaining growth, especially in developing countries of the world which Nigeria is not an exception. This is because in the long run efficiency of investment will overshadow quantity of investment as the driver of growth in the process. For instance, financial development spurs among other things technological innovations in an economy via the identification and funding of establishments or going concerns with the best chances of successfully implementing innovative products and production processes. Economic performance, growth or development creates demand for particular type of financial arrangements which the financial development automatically responds to. Financial development promotes economic growth through capital accumulation and technological progress by increasing the savings rate, mobilizing and pooling savings, producing information about investment, facilitating and encouraging the inflows of foreign capital, as well as optimizing the allocation of capital. Levine (2013) observed that there is even evidence that the level of financial development is a good predictor of future rates of economic growth, capital accumulation, and technological change.

### **Theoretical Framework**

The following related theories of financial development viz-a-viz economic performance were considered in this paper. These theories from which the theoretical framework were extracted includes:

#### **a. The Supply-Leading Hypothesis**

This theory or hypothesis suggests that financial development spurs growth. The existence and development of the financial markets bring about a higher level of savings and investment, and enhances the efficiency of capital accumulation. This hypothesis further contends that a well-functioning financial institution can promote overall economic efficiency, create and expand liquidity, mobilize savings, enhance capital accumulation, transfer resources from traditional (non-growth) sectors to the more modern growth inducing sectors, and also promote a competent entrepreneur response in these modern sectors of an economy (Ohwafasa and Aiyedogbon, 2013). There are countless studies that support this hypothesis; to them, it is crucial to motivate policy makers to prioritize financial sector policies and devote attention to policy determinants of financial development as a mechanism for promoting growth.

### **b. Demand-Following Hypothesis**

Demand-following hypothesis (theory) as led by Robinson (1952) holds that financial markets are essentially hand maid of domestic industry, and respond passively to other factors that produce cross country different growth. The demand-following view of the development of the financial market is merely a lagged response to economic growth (growth generates demand for financial products). This implies that any early efforts to develop financial markets might lead to a waste of resources which could be allocated to more useful purposes in the early stages of growth. Thus, as the economy advances, this triggers an increased demand for more financial services and thus leads to greater financial development. Some researchers postulated that economic growth is a causal factor for financial development. According to them, as the real sector grows, the increasing demand for financial services stimulates the financial sector. It is argued that financial deepening (development) is merely a by-product or an outcome of growth in the real side of the economy. Accordingly, any evolution in financial markets is simply a passive response to a growing economy (Guru and Yadar, 2018).

### **c. Harrod-Domar Growth Theory**

Harrod-Domar growth model is an extension of Keynesian short-term analysis of full employment and income theory. It provides a more comprehensive long period theory of output. The birth of this theory can be traced to the thirties when the attention of economists was drawn towards the problem of a steady and sustained economic growth by the Great Depression of 1930s and subsequently, by the economic devastation caused by the second world war (Kindleberger and Herrick, 1977). The central issue of the inquiry was to explore the requirements and conditions for steady growth in output and employment. Harrod and Domar had in their separate writings examined and explained the conditions and requirements of steady economic growth. Although their models differ in details, their conclusions are subsequently the same. Their models are known today as the Harrod-Domar model (Dwivedi, 2008).

According to the model, capital accumulation is considered as a key factor in the process of economic growth. They emphasized that capital accumulation, which implies net investment, has a double role to play in economic growth. It generates income on one hand, and increases production capacity of the economy on the other hand. However, it is imperative to note that with respect to this theory, a necessary condition of economic growth is that the new demand (or spending) must be adequate enough to absorb the output generated by the new investment (i.e. the increase in capital stocks), otherwise, there will be excess or idle production capacity.

### **d. The Neo-Classical Theory of Growth**

According to Dwivedi (2008), the contributions made to the growth theory by economists like James Tobin, Robert Solow, T. W. Swan, J. E. Meade, E. S. Phelps and H. G. Johnson have been given a collective name known as “The Neo-Classical growth theory”. The approach adopted by these growth theorists in their models was based on the following assumptions:

- a. There is perfect competition in commodity and factor markets;
- b. Factor payments equal their marginal revenue productivity;

- c. There is a variable capital/output ratio; and
- d. Presence of full employment.

Thus, the Neo-classical growth theory/model has it that rate of economic growth depends on the growth rate of capital stock, labour supply, and technological progress over time. The relationship between national output and these variables can be expressed in the form of a production as:

Y = National output

K = Stock of capital

L = Labour supply

T = Scale of technological progress

Basically, there are series of arguments in the literature concerning the relationship between financial development and economic growth. However, the argument most ideal for this study is the supply leading Hypothesis, which first formalized in the work of Goldsmith (1969), Mackinnon (1973) and Shaw (1973), who attributed the growth of the economy to the quality and quantity of financial services rendered by financial institutions. Thus, it is believed that an economy with a well-structured financial system could respond and stimulate economic expansion through financing the effort of the entrepreneur (Schumpeter, 1912). Schumpeter laid emphasis on the development of new technology through innovation and invention, discovery of new techniques, practical application of new techniques coupled with the capacity of financial institutions to finance the new and hence promote economic growth. Financial institutions do this from time to time by striving to bring financial services closer to the people.

### **Empirical Literature Review**

Okafor, Powale, Onabote, Afolabi and Ejemeyovwi (2021), in their study adopted post- SAP (Structural Adjustment Programme) time series data to determine the nature of relationship that exists between financial deepening and economic growth in Nigeria. Johansen co-integration, Error Correction Mechanism (ECM) granger causality techniques were employed for robust data analysis. The variables captured in their model were ratio of credit to the private sector to gross domestic product, as proxy for bank-based financial deepening; the proportion of market capitalization to gross domestic product as proxy for stock market development. Results revealed that economic growth in Nigeria is influenced by financial deepening both positively and significantly, especially the bank-based financial depth.

Udoh, Jack, Prince, Ekeowa, Ndubuaku and Samuel (2021) used the ARDL and NARDL techniques in examining the association between financial deepening and economic growth in Nigeria using quarterly data from 1999 to 2019. These data came from the three arms of financial firms, which are insurance, banking and stock market. To ascertain if there is a possibility of a non-linear association for structural breaks, the Zivot and Andrews tests were used, together with the Granger causality test. Findings revealed that economic growth adjusts non-linearly at a faster pace. A variety of macro and non-macro (financial) factors can be implicated in the non-linear adjustment. A bi-directional link between the variables was revealed by causal nexus.

Yousuo and Ekion (2020) investigated the impact of financial deepening on economic growth in Nigeria for a period of thirty-eight (1981-2018) years. Time series data were used and the classical least square multiple regressions with the application of dummy variable to capture the effects of various regimes was adopted in analyzing data. Results showed that financial deepening has both short and long-term effects on economic growth; as the estimated regression line was significant as confirmed by the F-statistic. Stock market's credit criteria has positive and significant effect on economic growth; savings criteria has negative and significant effects on economic growth, while the monetized criteria have positive and insignificant effects on growth in the short run.

Matai (2020) also investigated empirically the relationship between financial development and economic growth for eleven Emerging European Countries (EEC) for the period 1995-2016, using dynamic panel models (Pooled mean group estimator). Findings from the study when imposing a linear relationship suggested that financial development produces positive effects on economic growth only in the short-run horizon. When studying the hypothesis of non-linearities related to the finance – growth nexus, the relationship had an inverted u-shaped form (financial development exerts a positive effect on economic activity until a certain threshold and after that, the link becomes negative). The non-linearity hypothesis was true only for the domestic credit to private sector variable.

Guru and Yadar (2018) examined the relationship between financial development and economic growth of five major emerging economies. These countries (economies) were Brazil, Russia, India, China and South Korea for the period 1993 to 2014. They examine some of the principal indicators of financial development and macroeconomic variables of the selected economies. The banking sector development indicators used in the study included size of the financial intermediaries, Credit to Deposit Ratio (CDR) and Domestic Credit to Private Sector (CPS), whereas the stock market development indicators were value of shares traded and turnover ratio. Also, some macroeconomic control variables such as inflation, exports and the enrolment in secondary education were used. They adopted the generalized method of moment system estimation (SYS-GMM) for the study. The examination of the principal indicators of financial development and macroeconomic variables showed considerable differences between the selected economies. Results from the dynamic one-step SYS-GMM estimates confirmed that in the presence of turnover ratio, all the selected banking development indicators such as size of financial intermediaries, CDR and CPS were positively significantly determining economic growth. Similarly, in the presence of all the selected banking sector development indicators, value of shares traded was found to be positively and significantly associated with economic growth. However, the same was not true when turnover ratio was regressed in the presence of banking sector variables. Overall, the evidence suggests that banking sector development and stock market development indicators are complementary to each other in stimulating economic growth.

Karimo and Ogbonna (2017) looked at financial deepening and economic growth nexus in Nigeria with focus on examining the directive of causality between financial deepening and economic growth in Nigeria for the period 1970 to 2013. They adopted Tado-Yamamoto augmented granger causality test and results showed that the growth – financial deepening nexus

in Nigeria follows the supply-leading hypothesis; which means that it is financial deepening that leads to growth and not the other way round. Amongst other things.

Puatwoe and Piabuo (2017) assessed the impact of financial development on economic growth using time series data in Cameroon. The assessment was done using three common indicators of financial development, which are broad money supply deposit/GDP ratio and domestic credit to private sector. The Auto-Regressive Distributive Lag (ARDL) technique of estimation and results revealed that there exist a short-run positive relationship between money supply ( $M_2$ ), government expenditure and economic growth, while a short run negative relationship between bank deposits, private investment and economic growth equally exist. However, in the long run, all indicators of financial development showed a positive and significant impact on economic growth. They thus confirmed the existence of a positive and long-term impact of all the indicators of financial development on economic growth through bound test in Cameroun.

Ozsahin and Uysal (2017) analyzed the effect of financial deepening on economic development in 12 MENA (Middle East and North Africa) countries between 2000 and 2014. They used domestic credit to private sector, domestic credit provided by private sector and liquid liabilities of the financial system ratio as financial deepening indicators. Co-integration and estimation methods which take cross-sectional dependence into account, Durbin-Hausman Panel co-integration test for long-term relationship between variables and Pesarun CCE (Common Correlated Errors) estimator for long-term coefficients were used for data analysis. Empirical findings points to a positive relationship between financial deepening indicators and economic development for five countries; domestic credit provided by financial sector causes economic development for one country, and liquid liabilities of financial system causes economic development for four countries.

Ekeoma and Udoji (2019) examined the form of relationship that subsists between financial access and economic growth in a developing economy that is saddled with a lot of financial development constraints. The study covered a period of forty years, which is 1980-2019. They adopted Vector Auto Regressive (VAR) analysis, granger causality and Johansen-Juselins (JJ) co-integration technique for a robust analysis. Results from the analysis revealed that in the short run financial development (deepening) has no statistically significant effect on economic growth. However, co-integration test results showed a statistically significant long run equilibrium relationship between the two variables regardless of the Proxy used for financial access. Also, granger causality test result showed a bi-directional causality between economic growth and financial access when the latter is measured by the amount of credit granted to private sector. Finally, a one-way causal relationship from economic growth to financial access was found when the amount of deposits and money supply ( $M_2$ ) were used as Proxies of financial access.

Based on the empirical literature review, the uniqueness of this work is down to the fact that percentage change in GDP and not the absolute value of normal or real GDP (Gross Domestic Product) was used as a Proxy for economic growth. Secondly is the issue of currency as this work is amongst the first that was conducted in 2022 in the area of financial development and economic performance; thereby adding a new dimension to the already existing arguments.



## Methods of Study

The design adopted in this study was the quasi-experimental research design. The secondary data used for the study were solely sourced from the Central Bank of Nigeria statistical bulletin. The Johansen cointegration test and vector error correction mechanism (VECM) was adopted for data analysis.

## Model Specification

In order to capture the effect of financial development on economic performance in Nigeria, the least square linear regression model was used. This model is functionally and econometrically specified as:

$$gdp = f(mcap/gdp, mss/gdp, cps/gdp, bkc/dep) \dots (1)$$

econometrically, the model was given as;

$$gdp = b_0 + b_1 mcp/gdp + b_2 mss/gdp + b_3 cps/gdp + b_4 bkc/dep + \mu \dots (2)$$

where;

- gdp = gross domestic product
- mcap/gdp = market capitalization –gdp ratio
- mss/gdp = money supply – gdp ratio
- cps/gdp = credit to private sector – gdp ratio
- bkc/dep = bank credit-deposit ratio
- $b_0$  = constant term/intercept
- $b_1$  = regression coefficient of mcap/gdp
- $b_2$  = regression coefficient of mss/gdp
- $b_3$  = regression coefficient of cps/gdp
- $b_4$  = regression coefficient of bkc/dep
- $\mu$  = stochastic variable / error term
- f = functional notation

## Data presentation, estimations and results

**Table 4.1:** Data on Gross Domestic Product (GDP) Growth Rate, Market Capitalization – GDP Ratio (MCAP/GDP), Money Supply-GDP Ratio (MSS/GDP), Credit to Private Sector-GDP Ratio (CPS/GDP) and Bank Credit-Deposit Ratio (BKC/DEP) in Nigeria (1995-2021).

Year	GDP (%)	MCAP/GDP (%)	MSS/GDP (%)	CPS/GDP (%)	BKC/DEP (%)
1995	75.27	5.82	9.32	5.81	80.78
1996	31.80	6.99	8.46	5.84	79.04
1997	8.14	6.38	9.35	7.16	142.88
1998	8.75	5.46	10.16	7.32	86.83

1999	14.09	5.47	11.47	7.86	67.76
2000	28.83	6.69	12.44	7.51	72.40
2001	16.59	8.05	15.41	9.29	84.06
2002	39.67	6.65	13.09	8.09	82.50
2003	17.87	10.03	14.41	8.09	90.48
2004	33.69	11.66	11.76	7.84	91.44
2005	27.59	12.54	11.41	7.95	97.08
2006	31.37	16.86	12.50	7.54	77.79
2007	14.16	38.01	14.79	10.58	96.24
2008	15.22	23.93	21.63	19.77	97.98
2009	8.78	16.18	22.29	22.75	97.40
2010	27.63	17.88	20.01	18.96	78.76
2011	14.86	16.13	19.82	15.07	63.85
2012	13.95	20.39	21.35	18.31	62.06
2013	11.58	23.55	23.14	17.85	72.68
2014	11.27	18.72	22.65	18.59	75.00
2015	5.59	17.86	21.94	19.64	75.74
2016	7.77	15.78	23.65	20.50	87.94
2017	12.01	18.39	24.90	19.55	82.21
2018	12.35	16.97	23.07	17.54	170.01
2019	12.82	17.78	23.52	17.63	176.24
2020	5.91	25.02	23.35	18.83	138.79
2021	10.17	18.79	23.70	18.81	131.04

Source: CBN Statistical Bulletin (2021)

### Unit Root test results

#### gdp

Null Hypothesis: D(GDP) has a unit root

Exogenous: Constant

Lag Length: 0 (Automatic - based on SIC, maxlag=6)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-7.131384	0.0000
Test critical values: 1% level	-3.724070	
5% level	-2.986225	
10% level	-2.632604	

\*MacKinnon (1996) one-sided p-values.

#### mcap/gdp

Null Hypothesis: D(MCAP) has a unit root

Exogenous: Constant

Lag Length: 0 (Automatic - based on SIC, maxlag=6)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-5.702982	0.0001
Test critical values: 1% level	-3.724070	
5% level	-2.986225	
10% level	-2.632604	

\*MacKinnon (1996) one-sided p-values.

### **Mss/gdp**

Null Hypothesis: D(MSS) has a unit root

Exogenous: Constant

Lag Length: 0 (Automatic - based on SIC, maxlag=6)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-4.600398	0.0013
Test critical values: 1% level	-3.724070	
5% level	-2.986225	
10% level	-2.632604	

\*MacKinnon (1996) one-sided p-values.

### **cps/gdp**

Null Hypothesis: D(CPS) has a unit root

Exogenous: Constant

Lag Length: 1 (Automatic - based on SIC, maxlag=6)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-4.668932	0.0012
Test critical values: 1% level	-3.737853	
5% level	-2.991878	
10% level	-2.635542	

\*MacKinnon (1996) one-sided p-values.

### **bkc/dep**

Null Hypothesis: D(BKC) has a unit root

Exogenous: Constant

Lag Length: 0 (Automatic - based on SIC, maxlag=5)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-5.430982	0.0002
Test critical values: 1% level	-3.769597	

5% level -3.004861  
 10% level -2.642242

\*MacKinnon (1996) one-sided p-values.

### Summary of the Augmented Dickey Fuller Unit Root Test Results

Variables	ADF t-statistic	ADF critical values @ 5%	p-values @ 5%	Order of integration
<b>Gdp</b>	-7.131384	-2.986225	0.0000	1(1)
<b>mcap/gdp</b>	-5.702982	-2.986225	0.0001	1(1)
<b>Mss/gdp</b>	-4.600398	-2.986225	0.0013	1(1)
<b>cps/gdp</b>	-4.668932	-2.991878	0.0012	1(1)
<b>bkc/dep</b>	-5.430982	-3.004861	0.0002	1(1)

Source: e-views, 2022

The ADF unit root summary result above showed that the variables of the study were integrated at first differencing. In other words, they were stationary at order 1(1). Based on this result, the Johansen co-integration analysis for the estimation of long run relationship was employed.

### Johansen Co-integration test

Date: 08/06/22 Time: 13:47

Sample (adjusted): 1997 2021

Included observations: 22 after adjustments

Trend assumption: Linear deterministic trend

Series: GDP MCAP MSS CPS BKC

Lags interval (in first differences): 1 to 1

### Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.830090	95.42690	69.81889	0.0001
At most 1 *	0.692303	56.43219	47.85613	0.0064
At most 2 *	0.574139	30.50210	29.79707	0.0414
At most 3	0.400507	11.72200	15.49471	0.1707
At most 4	0.020925	0.465236	3.841466	0.4952

Trace test indicates 3 cointegrating eqn(s) at the 0.05 level

\* denotes rejection of the hypothesis at the 0.05 level

\*\*MacKinnon-Haug-Michelis (1999) p-values

### Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized	Max-Eigen	0.05
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No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None *	0.830090	38.99471	33.87687	0.0112
At most 1	0.692303	25.93008	27.58434	0.0802
At most 2	0.574139	18.78011	21.13162	0.1034
At most 3	0.400507	11.25676	14.26460	0.1418
At most 4	0.020925	0.465236	3.841466	0.4952

Max-eigenvalue test indicates 1 cointegrating eqn(s) at the 0.05 level

\* denotes rejection of the hypothesis at the 0.05 level

\*\*MacKinnon-Haug-Michelis (1999) p-values

Source: e-views, 2022

The Trace and Max-eigenvalue tests from the Johansen cointegration results indicates three (3) cointegrating and one (1) cointegrating equations, respectively. This confirms the existence of long run relationship between the financial development variables (mcap/gdp, mss/gdp, cps/gdp and bkc/dep) and economic performance in Nigeria. This leads to the deduction that financial development influences economic performance in Nigeria.

### Vector Error Correction Mechanism

Vector Error Correction Estimates

Date: 08/06/22 Time: 14:31

Sample (adjusted): 1998 2021

Included observations: 24 after adjustments

Standard errors in ( ) & t-statistics in [ ]

Cointegrating Eq:	CointEq1
Error Correction:	D(GDP)
CointEq1	-0.241016 (0.292016) [ 0.83261]

Source: e-views, 2022

In order to ascertain the speed of adjustments of the long run relationships, the vector error correction mechanism (vecm) was estimated. The result of the estimation was appropriately signed with a negative coefficient of -2.241016 and t-statistic of 0.83261. This means that short-run disequilibrium in economic performance can be corrected in the long run at the speed of 24% per annum. However, the t-statistics of 0.83261 indicated insignificant speed of adjustment and thus causality cannot be established. Invariably, financial development does not have significant impact on Nigeria's economic performance. This result was further confirmed by the estimation of the **least square system equation** below.

### System Equation

Dependent Variable: D(GDP)

Method: Least Squares (Gauss-Newton / Marquardt steps)

Date: 08/06/22 Time: 14:43

Sample (adjusted): 1998 2021

Included observations: 24 after adjustments

D(GDP) = C(1)\*( GDP(-1) + 3.24308957765E+15\*MCAP(-1) -

5.08597523015E+16 ) + C(2)\*D(GDP(-1)) +

C(3)\*D(MCAP(-1)) + C(4)

\*D(GDP(-2)) + C(5)\*D(MCAP(-2)) + C(6) + C(7)\*MCAP +

C(8)\*MSS +

C(9)\*CPS

	Coefficient	Std. Error	t-Statistic	Prob.
C(1)	-0.241016	2.920016	0.832613	0.4181
C(2)	-0.559200	0.174821	-3.198690	0.0060
C(3)	-0.684327	0.712334	-0.960682	0.3519
C(4)	0.203471	0.120933	1.682508	0.1132
C(5)	-0.659597	0.341709	-1.930287	0.0727
C(6)	19.74451	13.32196	1.482103	0.1590
C(7)	-0.741305	0.296200	-2.502722	0.0244
C(8)	0.402069	1.750254	0.229720	0.8214
C(9)	-0.991902	2.361113	-0.420099	0.6804

R-squared	0.698519	Mean dependent var	0.084583
Adjusted R-squared	0.537729	S.D. dependent var	10.81553
S.E. of regression	7.353533	Akaike info criterion	7.108235
Sum squared resid	811.1167	Schwarz criterion	7.550005
Log likelihood	-76.29882	Hannan-Quinn criter.	7.225437
F-statistic	4.344298	Durbin-Watson stat	2.538447
Prob(F-statistic)	0.006985		

### Source: e-views, 2022

C(1) is the coefficient of the long run equation with the probability value of 0.4181 > 0.05% level of significance. This confirms our earlier assertion of financial development having no significant impact on economic performance.

### Serial Correlation and Heteroskedasticity Diagnostic Tests

#### Breusch-Godfrey Serial Correlation LM Test:

F-statistic	2.270592	Prob. F(2,13)	0.1426
Obs*R-squared	6.213288	Prob. Chi-Square(2)	0.2448

Source: e-views, 2022.

### Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	1.778773	Prob. F(9,14)	0.1611
Obs*R-squared	12.80334	Prob. Chi-Square(9)	0.1717
Scaled explained SS	3.274797	Prob. Chi-Square(9)	0.9524

Source: e-views, 2022.

The diagnostic results as depicted on the above tables revealed that the model residuals are neither serially correlated nor heteroskedastic. This decision was arrived at given the probability values of the Breusch-Godfrey serial correlation LM and Breusch-Pagan Godfrey tests which were well above the 5% levels of significance.

### Policy Implication of Results

Results from the above analysis has further added to literature the fact that financial development is a critical and inextricable part of economic performance in Nigeria. The funding of economic activities, investments and innovations are generally seen as the key link between finance and economic performance (growth). This was established from the Johansen cointegration test for long run analysis which confirmed the existence of long run relationship between financial development variables and economic performance in Nigeria. This further validates the notion that there is the existence of a strong theoretical presumption that the financial sector development not only enhances the growth benefits associated with financial globalization but also reduces the vulnerability to crises. Thus, in the views of (Aghion & Banerjee, 2005; Caballero & Krishnamurthy, 2001), financial development also has a direct impact on macroeconomic stability in financially open economies. Sudden changes in the direction of capital flows tend to induce or exacerbate boom-bust cycles in developing countries that lack deep and well-functioning financial sectors. Therefore, it is not debatable that well-developed domestic financial markets are instrumental in efficiently allocating financial resources or flows to competing investments in an economy. Thus, the result above showed that financial development influences economic performance of nations.

Furthermore, the analysis of data additionally revealed that in the short-run, any disequilibrium in economic performance can be adjusted at the speed of 24% annually. In order to ascertain the extent of impact of the speed of adjustments and establish causality, the system least square equation of the t-statistic 0.83261 was generated and used to draw inference. The result revealed that the probability value of the long run coefficient C (1) -0.241016 was greater than the 5% level of significance benchmark (i.e  $0.4181 > 0.05$ ), leading to the conclusion that although financial development influences economic performance in Nigeria but not to a significant extent. Invariably, financial development has no significant effect on the economic performance of Nigeria. Specifically, the test results revealed that only gross domestic product (gdp) lagged one period and market capitalization to gross domestic product ratio (mcap/gdp), had significant impact on economic performance in Nigeria in the long run. This was ascertained via the

probability values of their long run coefficients, C (2) and C (7) - 0.0060 and 0.0244 respectively, which were all less than the 5% level of significance.

The above outcomes points to the fact that although financial development plays major roles in economic performance, but in Nigeria, the blueprint is still underdeveloped. Lack of well-developed financial markets can be attributed to be a key reason in explaining the insignificant impact of financial development on economic performance.

### **Conclusion**

The main focus of this study was to establish a nexus between financial development and economic performance in Nigeria. It had a time frame of 1995 to 2021, using data from Central Bank of Nigeria (CBN) statistical bulletin. The result of the analysis carried out using the Johansen test in conjunction with the vector error correction mechanism (VECM) revealed that in long run financial development influences economic performance (growth) in Nigeria. However, the extent of influence was not significant to establish causality. The findings from the results of the analysis led to the inference that financial development drives economic performance but with no significant impact in Nigeria. This position to some extent aligns with those of Matai (2020) who found that financial development produces positive effects on economic growth only in the short run horizon.

### **Recommendations**

Thus, the followings were the recommendations of the study;

1. Financial institutions should be brought closer to the people in order to further deepen the provision of financial services in Nigeria;
2. There is need to massively improve on the provision of security for financial service providers in the country. This one of the reasons for the absence of financial services in most parts of Nigeria;
3. Policy efforts like total deregulation of interest rate should be encouraged in order to promote the growth and flow of credit to the private sector in particular and further boost economic growth at large;
5. Investors' confidence in stock market operations in Nigeria should be restored; as this will go a long way in enhancing further the ratio market capitalization –GDP in Nigeria; and
6. Concerned agencies should intensify efforts to improve and ensure that there is transparency in alternative sources of credit provision.



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