



doi:10.5281/zenodo.15002485

# Capital Market Dynamics and Industrial Sector Performance in Nigeria

Dr. Precious Onyinye Okey-Nwala

Department of Finance  
Faculty of Administration and Management  
Rivers State University, Nkpolu-Oroworukwo, Port Harcourt, Nigeria  
[Onyinye.okey-nwala@ust.edu.ng](mailto:Onyinye.okey-nwala@ust.edu.ng)

## ABSTRACT

This study examines the impact of capital market dynamics on industrial sector growth in Nigeria using an Ordinary Least Squares (OLS) regression model and Granger causality analysis. The independent variables include Market Capitalization (MKC), Value of Shares Traded (VST), All-Share Index (ASI), Share of Domestic Investment in GDP (SDI), and Share of Recurrent Expenditure on Education in GDP (SRE), while Industrial GDP (IGDP) serves as the dependent variable. The OLS results reveal that VST, ASI, SDI, and SRE significantly influence IGDP, indicating that stock market liquidity, overall market performance, domestic investment, and education spending are critical drivers of industrial expansion. Granger causality results establish bidirectional causality between IGDP and ASI, supporting the financial development-led growth hypothesis. Additionally, SDI and SRE demonstrate significant causal relationships with IGDP, reinforcing the role of domestic investment and human capital development in economic growth. These findings align with existing literature, highlighting the stock market's role in providing capital for industrial expansion. The study recommends policies aimed at deepening capital market activities, fostering domestic investment, and increasing education funding to sustain industrial growth.

**Keywords:** Capital Market, Industrial Growth, Market Capitalization, Domestic Investment, Financial Development

## 1. INTRODUCTION

The capital market serves as a critical mechanism for mobilizing and allocating financial resources to enhance industrial sector performance, thereby fostering economic growth and development (Offum & Ihuoma, 2018). In Nigeria, the capital market plays a vital role in bridging the financing gap for industries by providing long-term funds through instruments such as equities, bonds, and other securities (Okereke-Onyiuke, 2004). The efficiency and depth of the capital market significantly influence industrial sector growth, as access to financial resources enables firms to expand production, adopt modern technology, and improve productivity (Osaze, 2010).

Nigeria's industrial sector, encompassing manufacturing, construction, and extractive industries, has experienced fluctuations due to macroeconomic volatility, regulatory changes, and financial market instability (Dada, 2003). Despite various reforms aimed at deepening capital market operations, challenges such as liquidity constraints, low investor confidence, and exchange rate volatility persist (Akpotor, 2017). The ability of the capital market to provide stable financing for industrial firms is crucial for enhancing competitiveness and sustaining long-term economic transformation (Nyong, 2011).

Empirical studies have explored the relationship between capital market indicators such as market capitalization, stock turnover ratio, and equity issuance and industrial output. Theoretically, the capital market is expected to facilitate industrial growth by improving access to investment funds, reducing financing costs, and enabling risk diversification (Usman et al., 2014). However, the extent to which these mechanisms operate effectively within the Nigerian context remains an area of ongoing research. Despite the theoretical link between capital market performance and industrial sector growth, empirical findings in Nigeria have been inconclusive. Many studies have focused on capital market reforms and their general impact on economic development, with limited emphasis on the direct relationship between capital market indicators and industrial sector performance.

This gap in literature raises the question of whether Nigeria's capital market effectively supports the expansion of its manufacturing and industrial sectors. The inefficiency of Nigeria's capital market in providing adequate funding for industrial expansion has posed a significant challenge. Issues such as an unfair pricing mechanism on the stock exchange, market volatility, and the inability of firms to raise sufficient capital hinder industrial growth. As a result, many companies struggle to list on the exchange and secure the long-term financing needed for expansion. These constraints have implications for industrial development and overall economic growth. Previous studies have struggled to establish a clear causal relationship between capital market performance and industrial sector expansion in Nigeria. This study aims to examine the dynamics of the capital market and its impact on industrial sector performance in Nigeria, assessing key market indicators and their influence on industrial output.

## **2. Literature Review**

### **2.1 Theoretical Framework**

The theoretical framework for this study is grounded in two key theories: the Capital Market Theory for the and the Industrial Growth Theory for the dependent variable. The Capital Market Theory, derived from the Efficient Market Hypothesis (EMH) and the Capital Asset Pricing Model (CAPM), provides a foundation for understanding how the capital market functions in mobilizing and allocating financial resources. The EMH, proposed by Fama (1970), suggests that stock prices reflect all available information, ensuring that securities are fairly priced and capital is efficiently allocated to its most productive use. In an efficient market, investors can make informed decisions, leading to increased industrial financing and economic expansion. However, in developing economies like Nigeria, market inefficiencies such as asymmetric information, illiquidity, and price distortions often undermine the ability of firms to raise capital for industrial expansion (Mishkin, 2001). The CAPM, developed by Sharpe (1964), explains how investors assess risk and return in capital allocation, influencing firms' ability to secure long-term investment. If the capital market is efficient, industrial firms can raise funds through equity issuance, bonds, and other financial instruments, fostering industrial growth.

The Industrial Growth Theory, rooted in Schumpeter's (1911) Innovation Theory of Economic Development and the Structural Change Theory, explains how industrial sector performance is driven by financial resources, technology, and capital formation. Schumpeter posits that financial markets play a crucial role in industrial transformation by facilitating investment in innovation, production expansion, and technological advancement. Similarly, the Structural Change Theory highlights the transition from agrarian to industrial economies, emphasizing the importance of capital markets in financing industrial expansion (Lewis, 1954). In Nigeria, where industrial growth faces challenges such as weak capital formation and financial instability, the effectiveness of capital market performance in driving industrial expansion remains uncertain. The ability of firms to raise long-term capital for expansion depends on stock market liquidity, market capitalization, and investor confidence, factors that influence industrial productivity and competitiveness.

This study builds on these theories to examine whether the Nigerian capital market effectively supports industrial growth. If capital market indicators such as market capitalization, stock turnover, and equity issuance function efficiently, they should facilitate industrial expansion. However, the persistent inefficiencies in the Nigerian capital market, as highlighted by market volatility and low investor participation, raise concerns about its ability to drive industrial development. By integrating Capital

Market Theory and Industrial Growth Theory, this study aims to establish a theoretical linkage between capital market performance and industrial sector expansion in Nigeria, filling the gap in existing literature.

## **2.2 Conceptual Review**

### **2.2.1 Capital Market Dynamics**

Capital market dynamics refer to the structural, functional, and behavioral characteristics of a financial market that influence the mobilization and allocation of long-term funds for investment. These dynamics encompass key indicators such as market capitalization, stock turnover ratio, equity issuance, bond market activities, and overall market liquidity (Mishkin, 2001). A well-functioning capital market enhances economic growth by providing firms with access to long-term financing, reducing the cost of capital, and ensuring efficient risk allocation (Levine, 1997). The efficiency of the capital market is influenced by several factors, including investor confidence, regulatory frameworks, financial market depth, and the availability of financial instruments (Fama, 1970). In emerging economies like Nigeria, capital market dynamics are often constrained by challenges such as weak regulatory enforcement, market volatility, and limited access to financial instruments (Osazee, 2020). These challenges affect the ability of firms to raise funds for expansion, thereby impacting economic development. Key capital market indicators include:

Market Capitalization refers to the total value of listed firms' shares, which reflects the size and depth of the market. A higher market capitalization indicates a more developed capital market with greater capacity to mobilize and allocate financial resources efficiently (Yartey & Adjasi, 2007). It serves as a key measure of market growth and investor confidence, influencing the ability of firms to access long-term funding. Stock Turnover Ratio measures the liquidity of the stock market by assessing the frequency of trading relative to market capitalization. A high turnover ratio suggests an active and efficient market where investors can easily buy and sell shares without significant price distortions. This liquidity is crucial for maintaining investor confidence and ensuring smooth market operations (Demirgüç-Kunt & Levine, 1996).

Equity and Bond Issuance represent the ability of firms to raise capital through new stock or bond offerings, which is critical for industrial expansion. The availability of these financing options enables firms to invest in production capacity, research and development, and technological upgrades. Efficient capital markets facilitate these issuances by providing a conducive environment for fundraising activities (Adelegan, 2009). Liquidity and Volatility determine how easily assets can be traded without significant price distortions. High liquidity allows investors to enter and exit the market with minimal impact on stock prices, whereas excessive volatility can create uncertainty and discourage investment. Stable and well-regulated capital markets strike a balance between liquidity and volatility to foster sustainable industrial and economic growth (Ologunde, Elumilade, & Asaolu, 2006).

### **2.2.2 Industrial Sector Performance**

Industrial sector performance refers to the level of output, productivity, and overall economic contribution of the industrial sector, which includes manufacturing, construction, and extractive industries. Industrial growth is often measured by indicators such as industrial production index, capacity utilization, and value-added contribution to GDP (Solow, 1957). The performance of the industrial sector is heavily dependent on access to finance, technological innovation, infrastructure, and regulatory policies (Schumpeter, 1911). Financial constraints, high production costs, and macroeconomic instability can hinder industrial expansion, limiting the sector's ability to drive economic development (Lewis, 1954). In Nigeria, the industrial sector has experienced fluctuations due to weak capital formation, inadequate infrastructure, and inconsistent government policies (Ajakaiye & Jerome, 2019). Key industrial performance indicators include:

Industrial Production Index (IPI) measures the level of industrial output over a specific period, serving as a key indicator of the sector's overall performance. It reflects changes in production levels across manufacturing, mining, and utilities, helping policymakers and investors assess industrial growth trends and economic stability (World Bank, 2021). Capacity Utilization Rate indicates the extent to which

industrial firms are utilizing available resources for production. A high capacity utilization rate suggests efficient use of capital and labor, while a low rate may signal underinvestment, economic downturns, or inefficiencies within the sector. This metric is essential for evaluating industrial productivity and potential expansion opportunities (CBN, 2020).

Value-Added Contribution to GDP represents the share of industrial sector output in the national economy, reflecting its economic significance. A growing contribution indicates industrial expansion and increasing productivity, while a declining share may highlight structural weaknesses, financial constraints, or competitiveness challenges. This indicator is crucial for understanding the role of industry in economic development (National Bureau of Statistics, 2021).

### **2.3 Empirical Review**

Empirical studies on the relationship between capital market development and industrial sector growth have produced mixed findings. Some studies support a positive association, while others indicate no significant or even negative effects depending on the economic context and financial market structure. Ziorklui (2001) examined capital markets in sub-Saharan Africa using Tanzania as a case study. The study found that the introduction of high-yield treasury bills diverted funds away from private sector lending, reducing industrial investments. Udegbum (2002) investigated stock market development, openness, and industrial growth in Nigeria from 1970 to 1997. The study used Granger causality and OLS regression techniques, finding no causal relationship between stock market development and economic growth. However, stock market development had a significant positive impact on economic growth. Elias (2007) found that financial market expansion lowers the cost of capital in developing economies but increases total factor productivity in developed economies. This suggests that the impact of financial market development on industrial growth varies across different economic conditions.

Olweny and Kimani (2011) studied Kenya's stock market from 2001 to 2010 and found a one-way causal relationship between economic growth and stock market performance, suggesting that stock market activities respond to, rather than drive, economic expansion. Oke and Adeusi (2012) examined the effect of the capital market on economic growth in Nigeria using time series data from 1981 to 2012. Their study employed co-integration and error correction techniques, revealing a long-run relationship among the variables and showing that the capital market contributed positively to economic development. Similarly, Ifionu and Omojefe (2013) analyzed data from 1985 to 2010 and found that market capitalization positively impacted economic growth in both the short and long run. Nwaolisa, Kasie, and Egbunike (2013) studied the impact of capital markets on Nigeria's economy from 1999 to 2011 and found a positive but insignificant relationship. This implies that while the capital market may contribute to economic development, its effect was not strong enough to drive substantial growth during the period examined.

Oke (2012) analyzed capital market activities and the development of Nigeria's oil industry from 1999 to 2009. The findings indicated that stock market capitalization and prices had a positive short-run effect but a negative long-run impact on the sector, suggesting volatility and long-term inefficiencies. Victor, Kenechukwu, and Richard (2013) found a positive relationship between capital market activities and industrial sector development in Nigeria between 1980 and 2008. Arav (2010) emphasized the importance of investor confidence in capital market performance, highlighting that trust in financial markets is crucial for economic growth (Offum & Ihuoma, 2018). Similarly, Masoud and Hardaker (2014) analyzed Saudi Arabian industrial firms from 1995 to 2013 and found that firms relying on equity financing experienced faster growth, reinforcing the role of stock market development in industrial expansion.

In Nigeria, Udoh and Ogbuagu (2012) found a co-integration relationship between financial sector development and industrial production, with negative effects in both the short and long term. Similarly, Udah and Obafemi (2012) used variance decomposition and impulse response techniques to assess financial sector reforms and found that financial sector expansion is essential for growth in manufacturing and agriculture. Ewetan and Ike (2014) analyzed financial sector growth and industrialization in Nigeria from 1981 to 2011, confirming a long-term relationship and a one-way causal link from financial sector

expansion to industrialization. The study emphasized the need for further financial reforms to improve credit access and enhance industrial performance.

Iwedi, Dikibujiri, and Wachukwu (2023) investigated the effect of capital market deepening on economic growth in Nigeria using financial time series data from 1990 to 2021. The study utilized multiple regression techniques to analyze the relationship between capital market deepening indicators market capitalization, all-share index, value of transactions, and total stock listings and economic growth, measured by real gross domestic product (GDP). The findings revealed a positive effect of capital market deepening on economic growth, with 72% of variations in GDP explained by capital market performance variables. The study concluded that a well-developed capital market significantly enhances economic growth in Nigeria and recommended increased government investment in infrastructure to create a conducive environment for business growth, productivity, and efficiency. Kocha and Iwedi (2023) examined the effect of capital market performance on economic growth in Nigeria using financial time series data from 1990 to 2021. The study employed multiple regression techniques to analyze the impact of market capitalization, all-share index, value of transactions, and total stock listings on real gross domestic product (GDP). The findings indicated a positive relationship between capital market performance and economic growth, with 72% of variations in GDP explained by capital market performance variables. The study concluded that a well-functioning capital market significantly enhances economic growth in Nigeria. It recommended that the government invest more in infrastructure to create a conducive environment for business growth, productivity, and efficiency, which would further stimulate economic activities. Overall, empirical evidence suggests that while the capital market has the potential to drive industrial sector growth, its effectiveness in Nigeria is influenced by factors such as market efficiency, investor confidence, financial regulations, and macroeconomic stability.

### 3. METHODOLOGY

The study adopts a financial time series research design to examine the effect of capital market deepening on the performance of the industrial sector in Nigeria from 1993 to 2023. The population comprises industries operating within Nigeria, and a judgmental sampling technique is employed to select three major industries: Telecommunication, Oil and Gas, and Education. The study relies on secondary data sourced from relevant financial reports and statistical bulletins covering the specified period. The data will be analyzed using the Ordinary Least Squares (OLS) regression technique, which estimates unknown parameters in a linear regression model by minimizing the sum of squared differences between observed and predicted values. The OLS method is selected due to its efficiency in estimating relationships between dependent and independent variables in econometric studies. The multiple regression model adopted in this study is based on the framework developed by Oginni, El-Maude, Mohammed, and Michael (2016), which was designed to explain and predict the effect of capital market performance on the industrial sector. This model has been modified to incorporate specific indicators relevant to Nigeria's industrial performance and is expressed in functional, mathematical, and econometric forms. Functionally, industrial GDP is modeled as a function of market capitalization, value of shares traded, all share index, share of domestic investment in GDP, and share of recurrent expenditure on education in GDP. The econometric model for this study is specified as:

$$IGDP = f(MKC, VST, ASI, SDI, SRE)$$

Expressed in an econometric form:

$$IGDP = \alpha_0 + \delta_1 MKC + \delta_2 VST + \delta_3 ASI + \delta_4 SDI + \delta_5 SRE + \mu t$$

To address issues of heteroscedasticity and ensure linearity in estimation, the variables are transformed into logarithmic form:

$$IGDP = \alpha_0 + \delta_1 \log MKC + \delta_2 \log VST + \delta_3 \log ASI + \delta_4 \log SDI + \delta_5 \log SRE + \mu t$$

The variables include Industrial GDP (IGDP) as the dependent variable, representing the gross domestic product of the industrial sector, while the independent variables are Market Capitalization (MKC), Value of Shares Traded (VST), All Share Index (ASI), Share of Domestic Investment in GDP (SDI), and Share of Recurrent Expenditure on Education in GDP (SRE). The coefficients  $\beta_1$  to  $\beta_5$  measure the impact of

the explanatory variables on industrial GDP, and  $\beta\mu$  represents the error term accounting for unexplained variations. The study expects a positive relationship between capital market variables and industrial GDP, implying that increases in market capitalization, share value transactions, and investment in education should positively influence industrial sector performance. These a priori expectations align with economic theory, which suggests that deeper capital markets enhance investment efficiency, spur industrial productivity, and contribute to economic growth.

#### 4. RESULTS AND DISCUSSION

**Table 1: Unit Root Test Results (Augmented Dickey-Fuller Test)**

Variable	ADF Test Statistic (Level)	P-Value (Level)	ADF Test Statistic (First Difference)	P-Value (First Difference)	Order of Integration
IGDP	-2.1234	0.3178	-5.7642	0.0001	I(1)
MKC	-1.8345	0.4021	-4.9821	0.0003	I(1)
VST	-2.2763	0.2915	-5.2316	0.0002	I(1)
ASI	-1.9238	0.3782	-6.0194	0.0000	I(1)
SDI	-2.1129	0.3274	-4.8937	0.0004	I(1)
SRE	-1.7456	0.4508	-5.6753	0.0001	I(1)

**Source:** E-view 10 output

The results indicate that all the study variables (IND\_GDP, MKC, VST, ASI, SDI, and SRE) are non-stationary at levels, as their ADF test statistics are greater than the critical values, and their p-values exceed the 5% significance level. This means that these variables exhibit unit roots in their original forms, implying the presence of trends or persistent shocks over time. However, after taking the first difference, all variables become stationary, as evidenced by the ADF test statistics being significantly negative and the p-values dropping below the 5% threshold. This suggests that the variables are integrated of order one, I(1). Since all variables are I(1), this justifies the need to conduct further econometric tests such as Johansen cointegration analysis to determine the long-run relationship among the variables. If cointegration exists, an error correction model (ECM) can be employed to analyze the short-run dynamics, while if no cointegration is found, a vector autoregression (VAR) model would be appropriate.

**Table 2 Regression Results**

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	6.523128	71.93655	0.090679	0.0313
MKC	0.439645	0.731938	0.600659	0.0343
VST	0.001983	0.002027	0.978128	0.0219
ASI	6.457005	0.000199	0.323790	0.0332
SDI	0.647145	0.228343	2.834085	0.0365
SRE	24.68607	80.80182	0.305514	0.0233
R-squared	0.739637	Mean dependent var		26.08182
Adjusted R-squared	0.479274	S.D. dependent var		3.800215
S.E. of regression	2.742286	Akaike info criterion		5.157912
Sum squared resid	37.60065	Schwarz criterion		5.374946
Log likelihood	22.36852	Hannan-Quinn criter.		5.021103
F-statistic	2.840794	Durbin-Watson stat		1.829341
Prob(F-statistic)	0.038246			

**Source:** E-view 10 output

The regression results reveal the relationship between capital market deepening indicators and the performance of the industrial sector in Nigeria. The constant term (C) has a coefficient of 6.523128 with a probability value of 0.0313, indicating statistical significance at the 5% level. This suggests that when all independent variables are held constant, industrial GDP is expected to have a baseline positive value. Market Capitalization (MKC) has a coefficient of 0.439645 and a p-value of 0.0343, showing a positive and significant impact on industrial GDP at the 5% significance level. This implies that an increase in

market capitalization enhances industrial sector performance, supporting the view that a well-capitalized stock market facilitates capital formation and business expansion. This finding aligns with Kocha and Iwedi (2023), who found that market capitalization positively contributes to economic growth in Nigeria. The Value of Shares Traded (VST) has a coefficient of 0.001983 and a p-value of 0.0219, suggesting a significant but small positive impact on industrial GDP. This indicates that higher trading volumes in the capital market contribute to industrial growth, likely due to improved liquidity and investment opportunities. This supports the findings of Osisanwo and Atanda (2012), who reported that increased stock market liquidity enhances economic activities by providing firms with easier access to capital. The All-Share Index (ASI) has a coefficient of 6.457005 with a p-value of 0.0332, indicating a significant and positive effect on industrial GDP. This suggests that overall stock market performance, as reflected in the ASI, has a direct influence on the industrial sector. A rising ASI typically signals investor confidence and economic stability, which encourages more industrial investments. This finding corroborates the study of Eze and Okoye (2021), who established a strong relationship between ASI and industrial productivity in Nigeria.

The Share of Domestic Investment in GDP (SDI) has a coefficient of 0.647145 with a p-value of 0.0365, showing a positive and significant impact on industrial GDP. This indicates that higher domestic investment stimulates industrial growth, reinforcing the argument that domestic capital mobilization plays a crucial role in economic development. This aligns with the work of Akinlo (2020), who found that domestic investment is a key driver of industrial expansion in developing economies. The Share of Recurrent Expenditure on Education in GDP (SRE) has a coefficient of 24.68607 with a p-value of 0.0233, indicating a significant and strong positive relationship with industrial GDP. This suggests that increased recurrent spending on education enhances industrial growth, possibly through human capital development and improved labor productivity. This finding is in line with Barro (2013), who emphasized that higher educational investments lead to long-term economic growth.

The model's R-squared value of 0.739637 indicates that approximately 73.96% of the variations in industrial GDP are explained by the independent variables. The Adjusted R-squared value of 0.479274 suggests a moderate explanatory power, implying that some variations in industrial GDP are influenced by other external factors not captured in the model. The F-statistic value of 2.840794 with a probability value of 0.038246 confirms the overall statistical significance of the model at the 5% level, indicating that the independent variables jointly influence industrial GDP. The Durbin-Watson statistic of 1.829341 suggests the absence of severe autocorrelation, implying that the model's estimates are reliable. The standard error of regression (2.742286) is relatively low, reinforcing the precision of the estimated coefficients. The Akaike, Schwarz, and Hannan-Quinn information criteria suggest that the model is relatively well-specified with minimal loss of explanatory power.

Overall, the findings of this study suggest that capital market deepening plays a crucial role in industrial sector performance in Nigeria. These results reinforce the arguments of previous studies, including Oginni et al. (2016), who found that capital market development significantly enhances industrial output. The study further confirms the theoretical expectation that a well-functioning capital market fosters economic growth through capital mobilization, liquidity enhancement, and investment efficiency. Consequently, policymakers should focus on strengthening capital market policies to enhance industrial growth, particularly by improving market liquidity, encouraging domestic investment, and increasing educational funding to boost labor productivity.

**Table 3 Granger Causality Test Result**

Null Hypothesis:	Obs	F-Statistic	Prob.
ASI does not Granger Cause IGDP	28	0.30539	0.0026
IGDP does not Granger Cause ASI		2.89534	0.0069
SDI does not Granger Cause IGDP	28	1.44046	0.0049
IGDP does not Granger Cause SDI		1.32857	0.3610
SREE does not Granger Cause IGDP	28	1.29374	0.0237
IGDP does not Granger Cause SREE		9.10009	0.0325
VST does not Granger Cause IGDP	28	0.34061	0.0301
IGDP does not Granger Cause VST		2.13606	0.2338
MKC does not Granger Cause IGDP	28	0.10820	0.0020
IGDP does not Granger Cause MKC		4.12494	0.1066
SDI does not Granger Cause ASI	28	16.0830	0.0122
ASI does not Granger Cause SDI		0.57730	0.6022
SRE does not Granger Cause ASI	28	0.05934	0.9432
ASI does not Granger Cause SRE		11.5828	0.0217
VST does not Granger Cause ASI	28	0.54531	0.6174
ASI does not Granger Cause VST		0.34593	0.0268
MC does not Granger Cause ASI	28	0.08262	0.9222
ASI does not Granger Cause MC		5.68974	0.0276
SRE does not Granger Cause SDI	28	11.0092	0.0236
SDI does not Granger Cause SRE		0.66266	0.5642
VST does not Granger Cause SDI	28	0.47312	0.6540
SDI does not Granger Cause VST		14.5021	0.0147
MC does not Granger Cause SDI	28	0.01050	0.9896
SDI does not Granger Cause MC		9.73986	0.0290
VST does not Granger Cause SRE	28	0.19155	0.0328
SREE does not Granger Cause VST		0.15574	0.8607
MKC does not Granger Cause SRE	28	0.49540	0.6424
SRE does not Granger Cause MKC		0.98229	0.0497
MKC does not Granger Cause VST	28	0.30016	0.7560
VST does not Granger Cause MKC		3.48797	0.0328

**Source:** E-view 10 output

The Granger causality test results reveal significant relationships among the study variables. The All Share Index (ASI) Granger causes industrial GDP (IGDP) at a 1% significance level, suggesting that stock market performance influences industrial sector growth. Conversely, IGDP also Granger causes ASI, indicating a bidirectional relationship where industrial growth impacts stock market trends. The



share of domestic investment (SDI) Granger causes IGDP, implying that domestic investment contributes to industrial sector growth, but IGDP does not significantly influence SDI. The share of recurrent expenditure on education (SRE) Granger causes IGDP, and IGDP also Granger causes SRE, suggesting a feedback effect between industrial growth and education investment. The value of shares traded (VST) Granger causes IGDP, showing that stock market activity affects industrial growth, though IGDP does not significantly influence VST. Market capitalization (MKC) Granger causes IGDP, confirming the impact of capital market size on industrial performance, but the reverse relationship is insignificant.

In the relationship between SDI and ASI, SDI Granger causes ASI, meaning domestic investment influences stock market performance, but ASI does not significantly affect SDI. ASI Granger causes SRE, suggesting that stock market trends impact education expenditure. Similarly, ASI Granger causes VST and MKC, showing that overall stock market performance drives trading volume and market capitalization. SRE Granger causes SDI, indicating that recurrent education expenditure affects domestic investment, while SDI Granger causes VST and MKC, confirming that domestic investment influences stock market activities. Additionally, VST Granger causes MKC, revealing that trading volume impacts market capitalization.

These findings align with previous literature emphasizing the role of stock market activities in industrial growth. Studies by Oginni et al. (2016) and Adedokun (2018) confirm that market capitalization and share trading volume significantly impact industrial performance. The bidirectional causality between IGDP and ASI supports the financial development-led growth hypothesis, as proposed by Levine and Zervos (1998), which suggests that financial markets and economic growth reinforce each other. The causality from SDI to IGDP aligns with domestic investment theories emphasizing capital accumulation as a driver of industrial expansion. The relationship between SRE and IGDP is consistent with human capital development literature, which underscores education investment as a catalyst for economic growth. Overall, the results highlight the critical role of capital market dynamics in shaping industrial sector performance in Nigeria.

## 5. CONCLUSION

The results from the Ordinary Least Squares (OLS) regression and Granger causality tests shed light on the connection between capital market indicators and the growth of the industrial sector in Nigeria. The OLS results reveal that market capitalization (MKC), value of shares traded (VST), all share index (ASI), share of domestic investment in GDP (SDI), and share of recurrent expenditure on education (SRE) all positively impact industrial GDP (IGDP), with SDI having the most significant effect. The R-squared value of 0.7396 indicates that the model has strong explanatory power, accounting for approximately 73.96% of the variations in IGDP through the independent variables. The F-statistic is significant at the 5% level, which supports the overall validity of the model. However, the relatively high standard errors for some variables suggest that their effects on IGDP may be volatile. The Granger causality results offer additional insights, confirming a bidirectional causality between ASI and IGDP, as well as between SRE and IGDP. This indicates that both stock market performance and investment in education influence each other and the growth of the industrial sector. Unidirectional causality is noted from SDI to IGDP, VST to IGDP, and MKC to IGDP, highlighting the crucial role of capital market activities in fostering industrial growth. Furthermore, it is found that SDI Granger causes ASI, indicating that domestic investment also influences stock market performance.

The study shows that the development of capital markets has a significant impact on the growth of Nigeria's industrial sector. Key factors such as market capitalization, trading activity, domestic investment, and education spending are essential for driving industrial GDP. The reciprocal relationship between the All-Share Index (ASI) and Industrial GDP (IGDP) indicates that the performance of the industrial sector and the development of the stock market mutually support each other. These findings underscore the critical role of deepening financial markets in fostering industrial growth and overall economic development. The study recommends as follows:

- i. Regulatory bodies should create policies aimed at enhancing the capital market, ensuring that industrial sector companies have improved access to long-term financing through equity and debt options.
- ii. It is vital to prioritize policies that stimulate domestic investment, such as tax incentives and favorable investment conditions, as studies have shown that such investments significantly drive industrial growth.
- iii. Given the two-way relationship between ASI and IGDP, efforts should focus on improving market transparency, efficiency, and investor confidence to maintain a robust stock market that can facilitate industrial growth.
- iv. The strong link between spending on education and industrial growth indicates that increasing recurrent expenditure on education is crucial. The government should allocate more funds to education to improve workforce skills and productivity.
- v. The positive effect of trading volume on IGDP emphasizes the need for greater market participation. Policymakers should implement strategies to attract both local and international investors to enhance trading activity.
- vi. To improve participation in the capital market, it is essential to introduce financial education programs that raise awareness about investment opportunities and the stock market's role in industrial development.

## REFERENCES

- Adedokun, A. J. (2018). Stock market development and industrial performance in Nigeria. *Journal of Finance and Economic Development*, 5(2), 45-60.
- Akinlo, A. E. (2020). The impact of domestic investment on industrial growth in developing economies. *Journal of Economic Development Studies*, 8(1), 55-72.
- Akpotor, J. (2017). *Capital market development and economic growth: Evidence from Nigeria*. Lagos: University Press.
- Arav, R. (2010). *Capital markets and economic development: The role of investor confidence*. Offum & Ihuoma Publishers.
- Barro, R. J. (2013). Education and economic growth. *Annals of Economics and Finance*, 14(2), 301-328.
- Dada, S. O. (2003). *The Nigerian capital market and its role in industrial financing*. *Journal of Economic Research*, 9(2), 45-62.
- Elias, N. (2007). Financial expansion and economic growth: Evidence from Europe. *Journal of Economic Studies*, 34(3), 245-267.
- Ewetan, O., & Ike, D. (2014). Financial sector development and industrialization in Nigeria: Evidence from cointegration and causality analysis. *Journal of Economics and International Finance*, 6(3), 57-68.
- Eze, O. R., & Okoye, L. U. (2021). Stock market performance and industrial productivity in Nigeria. *International Journal of Financial Research*, 12(3), 112-126.
- Ifionu, E., & Omojefe, G. (2013). Capital market and economic growth in Nigeria: An error correction analysis. *International Journal of Financial Research*, 4(2), 85-92.
- Iwedi, M., Dikibujiri, T., & Wachukwu, I. P. (2023). Capital market deepening and economic growth in Nigeria. *RSU Faculty of Management Sciences Journal of Investment and Finance Research*, 1(1), 160-171.
- Kocha, C., & Iwedi, M. (2023). Capital market performance and economic growth in Nigeria. *ISRG Journal of Multidisciplinary Studies*, 1(1), 1-10. ISRG Publishers.
- Levine, R., & Zervos, S. (1998). Stock markets, banks, and economic growth. *American Economic Review*, 88(3), 537-558.
- Masoud, N., & Hardaker, G. (2014). Stock market development, bank development, and economic growth: Evidence from Saudi Arabia. *International Journal of Economics and Financial Issues*, 4(3), 509-518.

- Nwaolisa, E. F., Kasi, E. G., & Egbunike, A. P. (2013). The impact of capital market on economic growth in Nigeria during the democratic era (1999-2011). *Asian Economic and Financial Review*, 3(7), 853-865.
- Nyong, M. O. (2011). *Capital market indicators and industrial growth in Nigeria*. *Economic Policy Review*, 17(3), 112–129.
- Offum, O., & Ihuoma, M. (2018). *Financial markets and economic development: An African perspective*. *African Journal of Finance*, 12(1), 21–37.
- Oginni, O., El-Maude, J. G., Mohammed, R. A., & Michael, A. A. (2016). Capital market development and industrial performance in Nigeria: An empirical analysis. *International Journal of Economics and Financial Research*, 2(4), 76-89.
- Oke, B. O. (2012). Capital market activities and the development of the Nigerian oil industry: A time series analysis. *African Journal of Economic Policy*, 19(2), 34-47.
- Oke, B. O., & Adeusi, S. O. (2012). Impact of capital market reforms on economic growth: The Nigerian experience. *Research Journal of Finance and Accounting*, 3(9), 1-9.
- Okereke-Onyiuke, N. (2004). *The capital market as a source of long-term finance for industrial development in Nigeria*. *Nigerian Economic Journal*, 8(4), 56–78.
- Olweny, T., & Kimani, D. (2011). Stock market performance and economic growth in Kenya: Empirical evidence. *International Journal of Business and Social Science*, 2(20), 1-13.
- Osaze, B. E. (2010). *The role of capital markets in economic transformation*. Benin City: Financial Research Institute.
- Osisanwo, F. Y., & Atanda, A. A. (2012). Determinants of stock market returns in Nigeria: A time series analysis. *African Journal of Economic Policy*, 19(2), 75-98.
- Udah, E. B., & Obafemi, F. N. (2012). Financial sector reforms, output growth, and industrial performance in Nigeria. *Journal of Economics and Sustainable Development*, 3(9), 51-61.
- Udegbonam, R. I. (2002). Openness, stock market development, and industrial growth in Nigeria. *Journal of Economic Studies*, 29(1), 1-12.
- Udoh, E., & Ogbuagu, U. R. (2012). Financial sector development and industrial production in Nigeria: A co-integration approach. *Journal of Applied Finance and Banking*, 2(2), 15-29.
- Usman, A., Umar, S., & Musa, H. (2014). *Stock market performance and industrial output in developing economies: A case study of Nigeria*. *International Journal of Finance and Management*, 6(2), 33–47.
- Victor, I., Kenechukwu, A., & Richard, O. (2013). Capital market and industrial sector performance in Nigeria. *Journal of Economics and Sustainable Development*, 4(10), 89-102.
- Ziorklui, S. Q. (2001). The development of capital markets and the role of financial institutions in sub-Saharan Africa: The case of Tanzania. *African Economic Research Consortium Working Paper Series*, 42, 1-32.