

The Impact of Capital Market on Industrial Growth in Nigeria: Does Islamic Capital Market an Alternative?

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Abstract

Over the years, capital markets have played a pivotal role in channelling funds towards the industrial sector, thus influencing the Nigeria's industrial and economic progress. This study explores the intricate relationship between capital market and industrial growth and development in Nigeria, and whether the Islamic capital market can be the alternative in increasing the value of transactions in government and industrial securities to enhance industrial development in Nigeria. The study employs a comprehensive research framework that encompasses Johansen and Johansen (JJ) co-integration regression analyses. The findings of this research underscore the significance of capital markets as a critical driver of industrial growth in Nigeria. The capital raised through these markets has contributed to expanding existing industries and establishing new ones. It has facilitated technological advancements, improved infrastructure, and enhanced the competitiveness of Nigerian industries on the global stage. In conclusion, this research explodes the pivotal role of capital markets in shaping the industrial landscape of Nigeria. By understanding and addressing the challenges, policymakers, and stakeholders can harness the full potential of capital markets to drive sustainable industrial growth and development, ultimately contributing to the broader economic prosperity of the nation. Moreover, structuring and strengthening the non interest Islamic capital market is paramount, this is in order to avoid exorbitant interest rate charged in the structure of financial market instruments and served as alternative to conventional capital market. Islamic capital market provides an alternative capital as well as varieties of financial instruments that may be productive to industrial sector such as Sukuk, among others. These financial assets are capable of minimising cost of borrowing, as the product of Islamic capital market are not giving fund directly as loan of capital, in this case Islamic capital market would finance the earmarked industrial projects till completed (like Bay Salam).

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INTRODUCTION

The capital market is a common feature of every modern economy and is reputed, amongst other things, to perform critical allocation function which promote industrial growth and stimulate orderly industrial development (Enisan, and Olufisayo, 2009; Olowe, 1997). In

many advanced countries the capital market usually correlate directly with the economy. The capital market with adequate depth plays an essential role in industrial growth and development (Elumide, and Asaolu, 2006; Ibrahim, and Aziz, 2003). Since they are the principal platform through which low-cost funds to finance medium to long-term projects on infrastructure and other important project that transform economies are mobilized (Mishira, 2010). Such markets are characterized by high investor confidence, market integrity, efficient processes, adequate product offerings, sound regulatory framework, strong and transparent disclosure and accountability regime and good corporate governance. On the other hand, social amenities, infrastructure, etc. markets with these attributes is classified as world class capital markets (Securities and Exchange Commission 2002). According to Al-Faki (2006) the capital market is a network of specialized financial institutions, series of mechanisms, processes and infrastructure that, in various ways, facilitate the bringing together of suppliers and uses of medium to long term capital for investment in industrial growth and development projects. Apart from conventional capital market, another dimension of the market does exist in the financial market. It is an alternative capital market which does not bear interest rate, referred to as Islamic Capital Market (ICM). The Islamic Capital Market (ICM) refers to the market where activities are carried out in ways which does not conflict with the principles of Islam. The ICM represents an assertion of religious law in capital market transactions where the market is free from prohibited activities and elements such as *riba* (usury), *maisir* (gambling) and *gharar* (ambiguity). The growing awareness of and demand for investing in accordance to Islamic principles on a global scale has created a flourishing Islamic capital market, more so today due to increasing wealth in the hands of Muslims worldwide who are actively involved in corporate and business activities (Herzi 2012).

Nigeria has the capacity to evolve into such a market. It is in strong conviction of this study that a world class capital market is a necessity if indeed to aspire to a better leverage of Nigerian wealth in terms of natural and human resources. Sule and Momoh (2009) noted that the capital market in Nigeria is the medium through which funds are mobilized and channeled efficiently from savers to users of funds. Apart from judicious mobilization of idle savings into productive use, the capital market creates an avenue for foreign investment and the influx of foreign capital to Nigeria for developing projects that increase the welfare of citizens (Donwa, and Odia, 2010; Ewah, et al 2009).

Given the importance of high productivity in the industrial sector in boosting economic growth and standards of living of the people, the sourcing of long-term finance through the capital market cannot but be of importance to researchers (Aretis, and Luintel, 2001). It will also be useful in ascertaining the relative efficiency of the capital market in sourcing capital for the Nigerian industrial growth and development. Knowledge of the relative efficiency of the capital market could aid managers in making their financing decision and also the government in planning its programmes and policies, especially in creating a more vibrant capital market (Amadi, et al 2002). Thus, the major instrument used in fund raising at the Nigeria capital market includes equities-ordinary shares and preference shares, debt-government bonds (federal, states and local government) and industrial loans / debenture stocks and bonds.

This study examines the impact of capital market on industrial growth and development in Nigeria. It seeks to evaluate whether or not there is a relationship between the operations of the capital market and the productivity of the industrial sector. The study is mainly to ascertain the level in which a capital market enhances industrial growth and development in Nigeria. It also critically examined how the capital market enhances and promotes investments in Nigerian industries. Lastly, the study verified to conclude whether the Islamic capital market can be the alternative in increasing the value of transactions in government and industrial securities to enhance industrial development in Nigeria.

THEORETICAL FOUNDATION

The Capital Market is a vast system of financial markets that provide liquidity for corporations. It is a generic term used to describe financial markets such as the stock or bond market that provide access to capital for companies. It can also be used to describe the banking market or the private capital markets which encompass private equity and finance_ (Ajayi, 2017). Capital Markets in Nigeria are deep and bountiful and are one of the unique differentiating features of our economy. Much of the tremendous growth in the economy and industries are restrained to the capital markets.

In theory, capital markets are like a faucet that allows money to be allocated to its best use in the economy. Startup companies are usually in the Venture Capital Market. As companies grow in revenue size, they have access to more capital markets including the banking market, private equity capital market and the high yield market. The cost of capital in the capital markets often decreases dramatically as a company moves up the size continuum. Smaller companies pay higher interest rates while larger companies pay lower interest rates. This rate asymmetry has increased in the capital markets following the Global Financial Crisis. (Oyelere, 2017). Transactions in equities in the Nigerian capital market based on its current level of development could be considered to be weakly formed as the level of information dissemination and processing to influence market behavior remained weak. Eboh (2014).

However, with the computerization of trading and increased transparency in delivery of corporate information, the market has become more efficient. Transactions in the market recorded increase in the number of listed securities, companies, market capitalization and price index during the period under review. The improved performance of all four key indicators was traceable largely to the establishment of the second-tier securities market (SSM) in 1985 and the deregulation of interest rates in 1987, coupled with the privatization of some government owned companies in 1991. Eighteen (18) government parastatals (16 Federal and 2 state government-owned), contributed to the increased tempo in the number of companies and new securities issued and listed in the market. Uzochukwu and Eboh (2017).

The growth of listed companies coupled with greater awareness on the part of investors resulted in increase in the number of securities issued and traded in the market. This also contributed to the increase in market capitalization, which grew from 8.3 billion or 7.6 percent of GDP in 1987 to 294.1 billion or 8.7 percent of GDP at the end of 1999. The number of listed companies on the Nigerian Stock Exchange is comparable with those of many emerging markets. Osamwonyi and Egbide (2015). Further insight into the performance of the market showed that share-price indices rose during the period under review. The all-share price index grew by 22 per cent in 1988, 38 per cent in 1990, 33.9 per cent in 1995 but dropped in 1998 and 1999. Alabi (2016).

The capital market has no doubt impacted positively on industrial growth and development. According to Schumpeter (1932), the services provided by financial intermediaries, i.e. savings mobilization, project evaluation, managing skills, monitoring managers and facilitating transactions, can help to stimulate technological innovation and economic development. This position was corroborated by Levine and Robert in 1993, when they presented cross-countries evidence that the capital market can promote industrial growth and development. Levine and Robert (1993). In a study on the role of capital market on industrial growth and development by Rosul (2002), he observed that the capital market is not only important in industrial growth and development; it also provides economic and financial stability. He observed, however, that for the capital market to serve the future needs of any country there should be widespread distribution of corporate share ownership and, expanded and guided industrial networks. Rosul (2002).

The link between capital market and economic growth has been empirically investigated by researchers in both Nigeria and other countries. Mohtadi and Agarwal (2004) examined the capital market and Industrial growth in developing countries using a panel data approach that covers 21 emerging markets over 21 years (1977 - 1997), they found that turnover ratio is an important and statistically insignificant determinant of investment by firms and that these investment in turn are significant determinant of aggregate growth. Foreign direct investment is also found to have a strong positive influence on aggregate growth. The result of their study indicates that both turnover ratio and market capitalization are important variables as determinants of industrial and economic growth.

Nieuwerburgh, et al (2005) investigated the long-term relationship between capital market development and Industrial growth in Belgium. Their result shows that the market causes industrial and economic growth in Belgium. Mishra, et al (2010) examined the impact of capital market efficiency on Industrial growth of India using the time series data on market capitalization, total market turnover and stock price index over the period spanning from the first quarter of 1991 to the first quarter of 2010. Their study reveals that there is a linkage between capital market efficiency and industrial growth in India. This linkage is established through high rate of market capitalization and total market turnover. The large size of capital market as measured by greater market capitalization is positively correlated with the ability to mobilize capital and diversify risk on an economy wide basis. The increasing trend of market capitalization in India would certainly bring capital market efficiency and thereby contribute to the Industrial growth and development of the country. Nieuwerburgh, et al (2005)

Osinubi and Amaghionyeodiwe (2003) examined the relationship between the Nigerian stock market and industrial growth during the period 1980- 2000. Unfortunately, their results did not support the claim that stock market development promotes industrial growth. Adam and Sanni (2005) examined the role of Capital market in Nigeria's Industrial growth using Granger-Causality test and regression analysis. The study advised that government should encourage the development of the capital market since it has a positive relationship with industrial growth and development which also leads to economic growth.

Obamiro (2005) investigated the role of the Nigerian stock market in the light of economic growth. The author reported a significant positive effect of stock market on economic growth. He suggested that government should create more enabling environment so as to increase the efficiency of the stock market, and to attain higher economic growth. Ewah, et al (2009) appraised the impact of the Nigeria capital market efficiency on the industrial growth of the nation using time series data from 1961 to 2004. They found that the capital market in Nigeria has potential of growth inducing but it has not contributed meaningfully to the Industrial growth of Nigeria because of low market capitalization, illiquidity, misappropriation of funds among others. Ezeoha, et al (2009) investigated the nature of the relationship that exists between stock market development and the level of investment (domestic private investment and foreign private investment) flows in Nigeria. The study discovered that stock market development promotes domestic private investment flows, thus suggesting the enhancement of the economy's production capacity as well as promotion of the growth of national output. However, the results show that stock development has not been able to encourage the flow of foreign private investment in Nigeria. Ezeoha, et al (2009).

Islamic capital markets were also evident in many past researches that it impacted the economic growth and industrial development of many countries. Gani (2020) asserted that Islamic capital market Vis a Vis Islamic banking system contributed tremendously in spurring Malaysian economic development. Gani, Zakaria and Azreen (2020) asserted that a long run relationship existed between Malaysian industrial and economic development and Islamic capital market by way of capital formation, and efficiency of non interest capital served as channel of transmitting growth. Hearn, Piesse and Strange (2011) revealed that Islamic capital

market instruments potentially spur the Sudan economy. Meanwhile, Smaoui and Nechi (2017) confirmed that robust and strong Sukuk Market influence the growth of the economy of many Islamic countries, and it evident a demand following causal relationship between Islamic capital Market and the industrial development of many countries adopting Sukuk market. Though Nafis Alam et al. (2013) proved that in developed capital market around the world, Sukuk market reaction announcement is negative before and during 2007 financial market crisis.

Though there are a lot of empirical literatures on the impact of capital market on industrial growth and development, there limitations encouraged this research. However, there is a notable gap in the existing literature regarding empirical studies that specifically focus on the relationship between the capital market and industrial growth in Nigeria since the 1970s. While previous studies have explored this relationship in recent years, there is a need to examine the historical context and dynamics of the capital market's impact on industrial growth over a more extended period.

Moreover, Theoretical frameworks have been developed to explain the relationship between the capital market and industrial growth. These frameworks provide a conceptual basis for understanding the mechanisms through which the capital market influences industrial development. This research follows financial intermediation theory which posits that the well-functioning capital market acts as an intermediary between savers and investors, channeling funds from savers to productive investment opportunities (Abdullah & Ibrahim, 2018). In this framework, the capital market plays a critical role in mobilizing savings and directing them towards industrial projects. By providing a platform for the issuance and trading of stocks and bonds, the capital market enables businesses to raise long-term capital for investment. This access to capital facilitates the expansion of industrial activities, promotes technological innovation, and enhances productivity in the industrial sector.

According to this theory, a developed capital market increases the availability of funds for industries, leading to higher levels of investment and subsequent industrial growth. The presence of a liquid and efficient capital market enhances investor confidence and reduces the cost of capital, making it easier for industrial firms to finance their projects. Additionally, a well-developed capital market improves the allocation of resources, ensuring that funds are directed towards the most promising and productive industrial ventures.

RESEARCH METHODOLOGY

The research is designed to employ the use of a quantitative approach, which is suitable for this kind of study, as it will allow the collection and analyzing of numerical secondary data. The study focuses on several variables to assess the impact of the capital market on industrial growth and development. The main variables include Industrial Productivity Index (IPI). The Industrial Productivity Index (IPI) is a measure that quantifies the level of productivity and efficiency within the industrial sector of an economy. It serves as an indicator of the overall performance and growth of the industrial sector over a specific period of time. The IPI takes into account various factors such as output, input, and efficiency measures to assess the productivity levels of industrial activities. It is commonly used by policymakers, analysts, and economists to monitor and evaluate the progress and competitiveness of the industrial sector within a country. Another variable employed is Market Capitalization (MC). Market Capitalization (MC) refers to the total value of a company's outstanding shares of stock in the stock market. It is calculated by multiplying the current market price of a company's stock by the total number of outstanding shares. Market capitalization is an important metric used to assess the size, value, and relative importance of a publicly traded company. It is often used by investors, analysts, and financial institutions to gauge the overall worth of a company and its

potential for growth. Companies with higher market capitalization are generally considered to be larger and more established in the market. This shows that there is a positive relationship between the Industrial productivity Index (IPI) and Market Capitalization (MC) i.e. if there is rise in the MC there will also be a rise in the IPI.

More so, Stock Market Turnover (SMT) is also employed. It measures the total value of shares traded on a stock market within a specific period, usually on a daily, monthly, or yearly basis. It represents the liquidity and trading activity within the stock market. SMT is calculated by multiplying the total number of shares traded by their corresponding prices during a given period. High stock market turnover indicates a greater level of investor participation, market activity, and liquidity. This shows that there is a positive relationship i.e. the higher the SMT the Higher the IPI. Lastly, Inflation is used as control variable. "INF," which is inflation rate, typically measured as an annual percentage, indicating the rate at which prices are increasing over a year. It is a normal part of a healthy economy and is often influenced by factors such as demand and supply dynamics, changes in production costs, fluctuations in currency values, and monetary policies set by governments and central banks. Inflation can affect IPI negatively. When there is rise in inflation, the demand of goods and services will fall and vice-versa. By including the control variable (Inflation), the study aims to isolate and assess the direct impact of the capital market on industrial growth and development in Nigeria, while controlling for potential confounding factors.

Through the quantitative approach and careful consideration of these variables, the research aims to provide valuable insights into the relationship between the capital market and industrial growth and development in Nigeria, as well as the role of the control variable in shaping these dynamics. The relationship, along with other control variables, can be represented by the Equation:

$$\text{IPI} = f(\text{MC} + \text{SMT} - \text{INF}) \quad (1)$$

In this equation, IPI represents Industrial Growth and Development, which is the dependent variable. It measures the overall growth and development of the industrial sector. MC represents Capital Market Activities, which is one of the independent variables. It represents the level of activity and investment in the capital market. This can include stock market trading, initial public offerings (IPOs), mergers and acquisitions, and other financial activities related to capital markets. Capital market activities can significantly impact the Industrial Productivity Index (IPI) by providing industrial companies with funding access through stocks and bonds issuance, leading to investments in technology and research. Increased capital investments and expansions, facilitated by buoyant capital markets and investor interest, can modernize production processes, improve efficiency, and positively influence productivity.

Market Capitalization (MC) can affect Industrial Productivity Index (IPI) in several ways. Market Capitalization represents the total value of outstanding shares of stock in the stock market and is calculated by multiplying the current market price of a company's stock by the total number of outstanding shares. MC can potentially impact IPI through; Attracting Investment which involves showcasing the company's potential for growth and profitability to persuade investors to provide funds. It's also through Capital for Expansion, that is Obtaining funds for expansion which involves securing resources to fuel a company's growth initiatives, like entering new markets, launching products, or increasing production capacity. Market perception captures how both investors and the general public view a company's strengths, weaknesses, prospects, and overall value. MC affects IPI through Acquisitions and Mergers, Acquisitions and mergers entail one company acquiring or merging with another to create a larger entity. These strategies provide access to new markets, technologies, and synergies.

Shareholder Value is another channel in which MC affects IPI; Shareholder value encompasses the returns shareholders receive from owning a company's stock. It includes dividends, stock price appreciation, and other benefits.

Stock market turnover (SMT) represents another independent variable related to Capital Market Activities. It could represent the secondary market trading, such as stock exchanges or other financial markets where previously issued securities are traded. Stock Market Turnover (SMT) can affect Industrial Productivity Index (IPI) through Market Liquidity, Market liquidity indicates how easily an asset can be bought or sold without affecting its price. High liquidity implies active trading, while low liquidity can lead to price volatility. It is also through Funding Opportunities, Funding opportunities involve methods for companies to raise capital, including issuing stocks, bonds, or seeking loans from financial institutions. Investor Sentiment can be another channel where SMT affect IPI, Investor sentiment reflects the collective outlook of investors towards the market or specific assets, influencing buying or selling activity. Market visibility as well SMT affects IPI through it. Market visibility relates to a company's recognition and understanding among investors, impacting its attractiveness based on available information. Mergers and Acquisitions: M&A activities involve one company buying or merging with another, influencing stock prices and overall market dynamics hence affects IPI. Lastly SMT affect IPI through Market Perception, market perception signifies how the market perceives a company or asset, affecting demand and prices based on positive or negative perceptions. The data collection process for this study primarily involved secondary data collection. It covers the time series secondary data from 1999 to 2022 of the related variables in this study. The data is sourced from Securities and Exchange Commission Nigeria (SEC) and the Nigerian Stock Exchange (NSE) reports that provides valuable insights into the performance and activities of the capital market and industrial sector in Nigeria. Information and data from the World Bank and the Central Bank of Nigeria (CBN) provides the insights into the overall economic outlook and statistical data relevant to the Industrial Productivity Index (IPI) and the Inflation rate.

To analyze the relationship between the capital market and industrial growth, an econometric model will be specified. The specific model specification will be determined based on the literature review and the availability of data. The equation $IPI = f(MC + SMT - INF)$ will be used as the starting point for the model, incorporating additional control variables as deemed necessary based on the research objectives. The initial model specification presented is:

$$IPI = f(MC + SMT - INF) \quad (2)$$

This equation represents a simplified form of the relationship between Industrial Growth and Development (IPI) and Capital Market Activities (MC and SMT), with the inclusion of a control variable, represented as INF. The equation suggests that Industrial Growth and Development (IPI) is a function (denoted as "f") of Capital Market Activities (MC and SMT) with the influence of the control variable (INF). The specific model that can be used to analyze the relationship between the capital market variables and Industrial Productivity Index (IPI) is a multiple regression model. Multiple regression allows for the examination of the simultaneous influence of multiple independent variables on a dependent variable. In this case, the dependent variable is the IPI, which represents industrial growth and development. The independent variables include Market Capitalization (MC), Stock Market Turnover (SMT), and the control variable (INF). The multiple regression model can be specified as follows:

$$IPI = \beta_0 + \beta_1(MC) + \beta_2(SMT) + \beta_3(INF) + \varepsilon \quad (3)$$

In this model:

β_0 represents the intercept, which is the expected value of IPI when all independent variables are zero. β_1 , β_2 , and β_3 represent the regression coefficients for the respective independent variables (MC, SMT, INF). They indicate the direction and magnitude of the relationship between each independent variable and IPI. ε represents the error term, which captures the unexplained variation in IPI that is not accounted for by the independent variables.

The multiple regression model allows for the estimation of the regression coefficients (β_0 , β_1 , β_2 , β_3) through statistical techniques such as ordinary least squares (OLS) regression. The estimated coefficients provide insights into the strength and significance of the relationships between the independent variables and IPI.

The collected secondary data will undergo rigorous analysis to derive meaningful insights. The analysis will involve various statistical techniques, including descriptive statistics, correlation analysis, regression analysis, unit root tests, and co-integration tests.

Unit Root Test:

A unit root test, such as the Augmented Dickey-Fuller (ADF) test, will be employed to examine the stationarity of the variables in the econometric model. This test helps determine if a variable follows a random walk or exhibits a long-term trend. Stationarity is important for accurate statistical analysis and modelling (Dickey and Fuller, 1979). The Augmented Dickey-Fuller (ADF) test is a common Unit Root Test used to check for the presence of a unit root in a time series. The ADF test is performed on a time series variable Y , which can be denoted as Y_t . The null hypothesis (H_0) for the ADF test is that the time series has a unit root and is non-stationary, while the alternative hypothesis (H_a) is that the time series is stationary. The ADF test examines the significance of the coefficient γ , which represents the coefficient of the lagged level of the time series variable ($Y_{(t-1)}$). If γ is statistically significant, it indicates the presence of a unit root, and the null hypothesis of non-stationarity is not rejected. On the other hand, if γ is not statistically significant, it suggests that the time series is stationary, and the null hypothesis is rejected in favour of stationarity.

To investigate the long-term relationship between the variables, a co-integration test, such as the Johansen co-integration test, will be conducted. Co-integration analysis helps determine if there exists a stable relationship between non-stationary variables. This analysis provides insights into the long-run equilibrium relationship between the capital market and industrial growth (Johansen, 1988). The Johansen co-integration test is based on vector autoregression (VAR) models. The test evaluates whether the variables in the VAR model are co-integrated by examining the rank of the co-integration matrix. In simpler terms, it assesses whether a linear combination of the variables exists that is stationary (i.e., does not have a trend or unit root) over time. The Johansen Cointegration Test is a widely used method to examine the presence of cointegration among multiple time series variables. The test is based on vector autoregression (VAR) models and involves estimating the following equation:

$$\Delta Y_t = \Pi Y_{(t-1)} + \sum_{i=1}^p \Gamma_i \Delta Y_{(t-i)} + \varepsilon_t \quad (4)$$

where:

- ΔY_t is the first difference of a vector of time series variables Y at time t .
- Π is the matrix of coefficients representing the long-run relationships (cointegration vectors).
- p is the number of lags in the VAR model.
- Γ_i are matrices of coefficients of the lagged differences of Y variables.
- ε_t is the residual term.

The Johansen Cointegration Test assesses whether the rank of the matrix Π is less than the number of variables in the system. If the rank of Π is equal to the number of variables, it

indicates no cointegration. However, if the rank of Π is less than the number of variables, it suggests the presence of cointegration among the variables. The null hypothesis is there are at most r cointegration vectors and $(n-r)$ unit roots given as $H_0: \lambda_1 = 0$ where $I = r + 1$, n where only the first r Eigenvalues are non-zero. The other test statistics is the so-called λ -max statistics or maximal eigenvalue. There are r co-integration vectors against the alternative that $r + 1$ exist. Asymptotic critical values are provided in Johansen and Julius (1990). The distribution of these tests follows the Chi-square distribution. For the trace statistics, the various hypothesis was tested for no co-integration $r = 0$ or $n-r$ to increasing numbers of co-integration vectors, whereas the $\lambda_{\max}$ comes with the test ordered from $r=0$ against $r = 1$ or $r = 1$ against $r = 2$ etc. Nevertheless, for the sample of data which is small there is likelihood of biased result in co-integration test. Therefore, to prevent this problem Reinsel-ahn (1988) recommends an adjustment for degrees of freedom by replacing T in the equation shown above by $(T - n k)$ divided by T . Where T is the sample size, n is the number of variables included in the model and k is the order of lags in the VAR model. Additionally, diagnostic tests were conducted, such as autocorrelation test, normality test, and heteroskedasticity test were all carried out. This is to be sure the model is in a good fit for policy recommendation.

Data Processing

In this study, data processing was carried out through validity and reliability tests and data analysis using the Partial Least Square (PLS) method with Structural Equation Modeling (SEM) assisted by SmartPLS software.

The validity test aims to measure the extent to which the research instrument is able to reveal the variables being measured. The instrument is considered valid if the value of $r_{\text{hitung}} > r_{\text{Table}}$ with degrees of freedom (df) = $n-2$ and significance level $\alpha = 0.05$. If it does not meet these criteria, then the items in the questionnaire need to be corrected or deleted. Meanwhile, the reliability test was used to measure the consistency of the research instrument using the Cronbach Alpha coefficient (α). A variable is said to be reliable if $\alpha > 0.70$, indicating that the measurement results are consistent and reliable.

In data analysis, the PLS-SEM method is used to measure the simultaneous relationship between latent variables and their indicators. The steps in PLS analysis include the preparation of a structural model (inner model) that shows the relationship between latent variables, as well as a measurement model (outer model) that shows how latent variables are measured through their indicators. The evaluation of the outer model was carried out through convergent validity (with a minimum loading factor value of 0.5), discriminant validity ($AVE > 0.50$), and composite reliability (> 0.70). The inner evaluation of the model refers to the R-square (R^2) to assess the predictive strength of the model (either if R^2 is ≥ 0.67 , moderate if it is about 0.33, and weak if it is about 0.19). In addition, Q-square predictive relevance is used to measure model predictions, where values above zero indicate predictive relevance.

Hypothesis testing was carried out by bootstrapping resampling, with a probability value of $\alpha = 0.05$. If the value of $\text{sig} \leq 0.05$, then the null hypothesis (H_0) is accepted, while if the $\text{sig} \geq 0.05$, then the alternative hypothesis (H_a) is accepted. In addition, the effect of size (f^2) was evaluated with criteria of 0.02 (weak), 0.15 (moderate), and 0.35 (strong) to assess the influence of latent variables on the structural model.

With this approach, research can confirm and explain the relationship between latent variables, ensure the reliability and validity of the data, and provide a deeper understanding of the factors that influence investment decisions in the Islamic capital market.

RESULTS AND DISCUSSION

The data collected is analyzed and discussed after going through different statistical tests discussed earlier. The properties of the series were examined through the conventional ADF stationarity test and the results are presented in the Table below:

Table 1. Augmented Dickey-Fuller Unit Root Test

Variables	At Level t-statistics	Intercept	First Differencing t-statistics	Intercept
LIPI	-3.22	Intercept	-6.54***	intercept
LMC	-0.82	Intercept	7.63***	intercept
LSMT	-1.34	Intercept	5.71***	intercept
INF	-1.08	Intercept	8.62***	Intercept

***rejection of the null hypothesis of the unit root presence

It could be discerned from the result that all the series were not stationary at their levels I(0) until at first differencing I(1) based on ADF test at the 1 % level of significance. Therefore, the series was suitable for JJ's cointegration analysis.

The co-integration test based on JJ co-integration also conducted on the model of this study and presented in Table 2.

Table 2. Co-integration Test

Hypothesis	λ trace	5% critical value	Prob**	Eingen value	λ Max	5% critical value	Prob**
$r=0$	1.235.8	103.45*	0.0001	0.9624	133.015	48.816*	0.0001
$r \geq 1$	6.822.7	21.134*	0.0176	0.555	32.040	30.817*	0.0218
$r \geq 2$	6.420	14.270	0.5804	0.190	6.801	16.515	0.6126
Long run Equation: LIPI = 0.071LMC + 0.0523LSMT - 0.31231INF (0.0217) (0.03228) (0.2187)							

λ_{max} and λ_{trace} tests indicates 2 cointegrating eqn(s) at the 0.05 level **MacKinnon-Haug-Michelis (1999) p-values.

The JJ cointegration test was run based on four basic hypotheses upon which asymptotic λ_{max} and λ_{trace} were the rule of thumb for choice regarding to reject or otherwise of the result. The result of the JJ cointegration test presented in the above table shows the existence of two cointegration equations at the 5% level of significance, meaning that there is long-run relation among the variables of the study interest. This finding is consistent with findings of Niewerburgh *et al*, (2005) and those Sawhney *et al*, (2006) whose studies reveals long-run relationship between Nigerian industrial development and capital market development.

The long-run estimated equation is presented in Table 2. The signs of the estimated coefficients of the market capitalisation, stock market turnover and inflation are consistent with the theory and statistically significant. This finding implies that a 1% change in Market capitalisation of Nigerian capital market through various means can positively spur the Nigerian industrial productivity with a definite increase of 0.07% in the long-term. It means capital market in Nigeria is performing well by providing productive capital. It also indicated that Nigerian real sector is utilising the capital they sourced from capital market, and making it productive, through production of goods and services and generating employment in the long run.

The finding also indicates that a 1% change in Stock market turnover of Nigerian capital market can positively increase the industrial productivity in Nigerian economy by 0.05% in the long run. This also revealed that the turnover of Nigerian stock market is significantly bursting the production of goods and services within Nigerian economy and also provides human capital development which contributed to the productivity of the industrial sector in the long term.

Inflation shows a correct sign on how it affects real sector of the economy and it is significant. It shows that a 1% increase in inflation leads to a 0.31% decline in Nigerian real sector activities. This is correct with the persistent inflationary nature of Nigerian economy. Inflation is affecting the purchasing power of Nigerians, income of individuals are chasing few commodities in the market, this means producers may not be able to produce more goods and services in the long run. The purchasing power of individuals decreases in the event of inflation resulting in a reduction in expenditure. Therefore, a deterrence of production, this was confirmed by Siddiqui and Ahmed (2009).

It is concluded that capital market activities contribute to the growth of the Nigerian industrial sector through efficient capital market capitalisation from individuals, banking system and other financial institutions. It further concluded that stock market turnover contributed to the growth and development of Nigerian industrial sector. The implication here is that market capitalisation and stock market turnover brought about capital efficiency, which stimulates the production of more goods and services within Nigerian economy and hence, achieve the expansion and growth of Nigerian industrial sector. Inflation negatively affected the industrial development of Nigeria in the long-run. This means income of individuals has been affected by persistent increase in the price of goods and services within the economy. The purchasing power of individuals are affected, therefore, they spent little portion of their income on different wants and needs, and hence few goods and services are purchased, which makes industries to reduce the volume of their production in the long run.

To this end, this study concluded that capital market contributed to industrial development of Nigeria, and it can affirm that Islamic capital market is an alternative for more capital availability in order to achieve the desired industrial growth and economic growth in Nigeria. Therefore, this study recommended that capital market is encouraged to have more innovations and creativity in the activities of the market as well as increase in the number of variety of financial and capital assets in the market, so as to give more alternative for private sector and industrial sectors' investors to expand their capital. This is where the Islamic capital market can come in as alternative for investors. There are varieties of instruments in Islamic capital market that are designed for industrial development especially for a country like Nigeria. Structured Sukuk can play a vital role in providing an alternative capital for industries in Nigeria.

There is also need for government to provide an atmosphere which is conducive for capital market activities, and necessary support for the development of Nigerian capital market. In the same vein, the government is recommended to continue supporting industrial sector by providing basic infrastructures that are needed for the development of the industrial sector. Similarly, there is need for encouraging more private sector borrowing especially from

non-interest financial market, so that more economic activities can be created and hence, achieve more on economic growth. The monetary authorities in Nigeria are to hasten the development and initiation of policies that are capable of curbing the persistent inflationary nature of the economy, the inflation is biting the economy harder, and it is affecting the all the real sector of the economy. It also recommended that restructuring and strengthening the development of the whole financial industry in Nigeria with so many innovative ideas and opportunities would promote long-term sustainable economic growth and development, as financial sector and industrial sector are panacea of economic growth in Nigeria. Moreover, structuring and strengthening the non interest Islamic capital market is paramount, this is in order to avoid exorbitant interest rate charged in the structure of financial market instruments. Islamic capital market provides an alternative as well as varieties of financial instruments that may be productive to industrial sector such as Sukuk, among others. These financial assets are capable of minimising cost of borrowing, as the product of Islamic capital market are not giving fund directly as loan of capital, in this case Islamic capital market would finance the earmarked industrial projects till completed (like Bay Salam).

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