Impact of the Capital Market on Industrial Sector Development in Nigeria

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Abstract
This study examined the impact of the capital market on industrial sector development in Nigeria. The objective was to determine the relationship between capital market indicators proxy by all share index, market capitalization, and value of shares nations with industrial sector output. The study was carried out using CBN Statistical Bulletin from 1985-2017. Data were analyzed using OLS, ADF, Co-integration and Error Correction Model. The result of our analysis indicates that capital market indicators proxy by value of transactions, market capitalization, and All Share Index all jointly impact on industrial growth both in the short run and long run. This means that the stock market has a great responsibility in mobilizing long-term capital and conforms to apriori expectation on the significant role of the stock market which is the heart of capital market activities. It therefore recommends that the market should be reformed as a driver for industrial development in Nigeria. If rapid industrial development is the dream of the government and monetary authorities, listing requirement at the capital market must be made in such a way that medium scale industries are opportune to get listed. Much as the standard remains uncompromised, it has to be made to give room for wider participation. It also requires the need for the capital market to be diversified with more tradable financial instruments, which will give industrial firms more options to trade and raise capital at the market.

Keywords: capital market, industrial sector, all share index, market capitalization, value of transactions

1.0 Introduction
The industrial sector consisting of the manufacturing, solid minerals, crude petroleum and natural gas sectors is seen as a major backbone to national development owing to its numerous benefits such as employment generation, goods production for local and foreign use, source of foreign revenue. The industrial sector plays a catalytic role in a modern economy and has many dynamic benefits crucial for economic development (Akinlo and Lawal, 2015). Productive activities such as manufacturing, mining, oil exploration and production process involve the use of human, financial, mechanical and land resources which are aimed for profitable results that ultimately enhance companies’ returns and revenue for the government (Solomon, 2015). Industries are responsible for the production of materials which are either raw, semi or finished goods for onward sales to users or consumers, thus increasing the economic output of the nation.

The possession of industrial capabilities by an economy is considered an important potential for improved economic development. Indeed, one of the distinguishing factors between developed and developing economies is the acquisition of industrial know-how. The benefits of appropriate industrial base for an economy lies in its combination of suitable technology management techniques and other resources in order to move the economy from a traditional and low level of production to a more automated and efficient system of mass processing and manufacture of goods and services. This explains why every economy seeks to expand if the economy is already
industrialized (Idyu, Ajekwe, and Korna, 2014). Okoye, Nwisienyi and Eze (2013) contributed that through the establishment of industries, both small and large, a nation could produce most of the goods and services its people require. However, for industries to expand and for industrialization to take place, easy access to long-term capital is required. Capital according to Babalola and Adegbite (2002) provides the impetus for the effective and efficient combination of factors of production to ensure sustainable growth.

Capital in the view of Orjih (2001) can be classified into broad categories based on tenure viz; long term and short term capital. The long term capital of a firm is committed to investment in fixed assets. It includes the shareholders’ funds and long term loans. On the other hand, short term capital is applied for investment in current assets such as cash, marketable securities and short term credits. The capital market has been identified as an institution that helps to channel capital or long-term resources to firms with relatively high and increasing productivity thus enhancing economic expansion and growth (Alile, 1997). This is made possible through some of the vital roles played such as channeling resources, promoting reforms to modernize the financial sectors, financial intermediation capacity to link deficit to the surplus sector of the economy, and a veritable tool in the mobilization and allocation of savings among competitive uses which are critical to the growth and efficiency of the economy.

Donwa and Odia (2010), assert that the Nigerian capital market provides the necessary lubricant that keeps turning the wheel of the economy especially the industrial sector. They stressed further that it not only provides the funds required for investment but also efficiently allocates these funds to projects of best returns to fund owners. This allocative function is critical in determining the overall growth of the economy. Yadiri, Chigbu (2014) posit that for sustainable economic growth, funds must be effectively mobilized and allocated to enable businesses and the economies harness their human, material, and management resources for optimal output. Okereke and Onyiuke (2000) posit that the cheap source of funds from the capital market remain a critical element in the sustainable development of the industrial sector. She enumerated the advantages of capital market financing of the manufacturing sector to include no short repayment period as funds are held for medium and long term period or in perpetuity, funds to state and local government without pressures and ample time to repay loans. Okoye, Nwisienyi and Eze (2013) see capital market as the major source of capital for industries in Nigeria and noted that substantial capital is required either to develop or import technological know-how which is needed for industrial development. It is therefore, the capital market that has the capacity to provide such huge sums of long term, non-debt capital through the issuance of equity securities which enables new industrial establishments survive the relative long gestation periods in most capital investment projects.

1.1 Statement of the Problem
Theories abound on the role of the capital market as a financial institution and as financial market for mobilizing capital to the various industries that desire and are quoted at any tier in the market (Alile, 1997; Donwa and Odia, 2010; Ekundayo, 2002). The low level of development in the industrial sector in Nigeria has been attributed to poor funding caused by high interest rate in the banking industry and the inefficiency of the capital market. If the theories of financial intermediation as catalyst for economic development are to be accepted, it is imperative to determine if the capital market activities have impacted on the growth of the industrial sector.
1.2 Objectives of the Study

The objectives of the study are as follows:

i. To examine the relationship between all share index and growth of industrial sector output in Nigeria.

ii. To evaluate the impact of market capitalization on growth of industrial sector output in Nigeria.

iii. To evaluate the effect of market turnover ratio on growth output of the industrial sector.

iv. To determine whether value of new shares at the capital market impacts on growth of industrial sector output in Nigeria.

1.3 Research Hypotheses

The following hypotheses have been postulated to guide the study.

\( H_{01} \): There is no significant relationship between all share index and growth of industrial sector output in Nigeria.

\( H_{02} \): There is no significant relationship between market capitalization and growth of industrial sector output in Nigeria.

\( H_{03} \): There is no significant relationship between value of new shares at the capital market and growth of industrial sector output in Nigeria.

\( H_{04} \): There is no significant relationship between market turnover ratio and growth of industrial sector output in Nigeria.

2.1 Literature Review

2.1.1 Theoretical Framework

Capital markets were shown as early as 1960s to offer tremendous potential to economic growth (Goldsmith 1969; Levine, 1997; McKinnon, 1973; Patrick, 1966; Shaw, 1973 and Taylor, 1983). These markets tap not only into domestic financial resources, but also into international financial markets. If these capital markets are relatively efficient (Arestis, Chortareas and Desli, 2006) as they are shown in most of the advanced industrialized countries, they will provide liquidity to investors and make funds available for the undertaking of long-term projects. The early proponents of finance-led economic growth theory also known as ‘financial intermediation theory’ include Bagehot (1873), Schumpeter (1911) and Hicks (1969).

Bagehot (1873) and Schumpeter (1911) argue strongly for the important role capital market development plays in promoting industrial and economic growth. They support their claim by arguing that the industrial revolution in England was the result of a functioning capital market that was instrumental in mobilizing and allocating long-term capital to the productive enterprises of the country. Their position was buttressed by Hick (1969), who argued that a well-functioning financial system provides intermediation services to productive entrepreneurial activities that spur technological, innovative, and productive activities that increase real sector growth.
On the other hand, Robinson (1952) indicates that demand-pull initiatives from the private sector growth have the propensity to spur the financial sector to respond to financial or capital needs of the private sector. In her view, real sector developments (growth) and financial needs create the demand for a certain financial structure (equity versus debt) to cater to the needs of the private sector. Lucas (1988), in support of Robinson’s position, argues that the proponents of finance led growth exaggerate the impact of capital market development on industrial sector growth. However, ever since the pioneering contributions of Gurley and Shaw (1955, 1960, 1967), McKinnon (1973) and Shaw (1973), the relationship between financial development and economic growth led to the recent debates on the issue.

Thus, numerous studies sprang up to deal with the different aspects of this relationship both on theoretical as well as on empirical levels. The broadest division of such works is between financial intermediaries (banks, insurance companies, and pension funds) and markets (bond and stock markets). It is said that a large part of an economy’s savings are intermediated towards productive investments through financial intermediaries and markets thus, since the rate of capital accumulation is a fundamental determinant of long-term growth, an efficient financial system is essential for an economy (Garcia and Liu, 1999).

Earlier research in this area of finance emphasized the role of the banking sector in economic growth, however, since in the past decade when the world stock markets surged with emerging markets accounting for a large amount of this boom (Demirguc-Kunt and Levine, 1996a), which are among the more recent research, therefore, begun to focus on the linkages between the stock markets and industrial development as new theoretical work began to show how stock market development might boost long-run industrial growth. From the point of view of the above argument, the relationship between capital market intermediation and industrial sector development is expected to be positive as evidenced by studies of Donwa and Odia (2010); Ibi, Joshua, Eja, and Olatunbosun (2015); Okoye, Nwisiennyi, and Eze, (2013).

2.1.2 Capital Market

Nyong (1997) defined the capital market as a complex institution imbued with inherent mechanisms through which long-term funds of the major sectors of the economy comprising of households, firms and government are mobilized, harnessed and made available to various sectors of the economy. Dada (2003) defined the capital market as an institution that exists to provide long term capital both to government and corporate bodies for industrial, socioeconomic and infrastructural development purpose. Al-Faki (2006) sees the capital market as a network of specialized financial institutions, series of mechanisms, processes and infrastructure that, in various ways, facilitate the bringing together of suppliers and users of medium to long term capital for investment in socio-economic developmental projects. Abiola and Okoduwa (2008) defined the capital market as a network of specialized financial institutions, series of mechanisms, processes and infrastructure that, in various ways, facilitate the bringing together of suppliers and users of medium to long-term capital for investment in socio-economic developmental projects. It embraces all the arrangements that facilitate the buying and selling of securities. Okoye and Nwisiennyi (2013) see the capital market as any mechanism organized for trading financial assets or liabilities and these financial assets will include all forms of securities ranging from common stocks to derivatives. To these authors, the primary function of the capital market is to enable funds
to be effectively allocated from the surplus units in the economy to the deficit units for productive investments. Indeed, with such mechanism, corporate financial managers have access to a wide range of sources of finance and instruments.

1. **Primary Market**

In the primary markets, new business can start by obtaining funds directly from households in which new stocks are sold to investors via the mechanism of underwriting (Teklehaimanot, 2014). The selling of common stock to the public through Initial Public Offering (IPO) in the primary market is an instance whereby widely held share companies under formation offer new shares to the investors (Kumulachew, 2011).

2. **Secondary Market**

In the secondary market, existing stocks are sold and bought among investors or traders in the stock market through stock exchange (Chewaka, 2014). Furthermore, secondary market could be either auction market or dealer market. While the stock market is part of an auction market, over-the-counter (OTC) is part of the dealer market. The difference between stock market and OTC is that the former exchange market operates in a structured manner and physical facility with a trading floor to which all stock transactions are supposed to be directed.

Okafor and Arowoshegbe (2011) in distinguishing between the primary and secondary market says that in the primary market, the funds raised from investors go to the issuing entity, while in the secondary market, the proceeds from the transactions go to investors. They stressed further that the two levels of the market complement each other. While the primary market feeds the secondary market with new securities, the success of the new issues of securities in the primary market depends to a large extent on the receptivity of the securities in the secondary market and the level of liquidity the secondary market affords investors.

There are certain key indicators of capital market development which are generally accepted in literature. These, according to the International Finance Corporation (IFC) (1991), are the standard quantitative indicators of stock market development:

1. **Net increase in Market capitalization:** Market capitalization measures financial value of listed shares.

2. **Number of listed companies:** This is the total number of companies listed at the stock market.

3. **Trading of shares in value terms:** Value of shares traded measures total value of shares traded on the stock market.

4. **All Share Index:** This is the total number of deals carried out at the stock market.

5. **Market turnover ratio:** Turnover ratio is a ratio that equals the value of total shares traded divided by market capitalization.

**Equity Stock:** Equity capital confers on the holder some rights including the right to conceive notice of meeting and to attend and vote at such meeting. In effect, capital owners are entitled to
any surplus income in the firm after the prior rights of debtors have been met. In Nigeria, there are three types of shares namely: Ordinary share, Preference share, deferred shares.

**Ordinary Share:** These are the most important and common type of shares. Its holders bear the main risk of the business. When profits are made, they receive small or no dividend. In return for the (higher) risk which an ordinary shareholder takes, they have power to control the business through voting at annual meetings.

**Preference Shares:** These are shares that have fixed rate of dividend which is paid in preference to any payment to the ordinary shareholders. However, interest is only paid if the company makes profits. In the event of winding up such shareholders will also have preference over the ordinary shareholders in the repayment of capital.

There are four (4) types of preferences share namely:

a. Cumulative preference share
b. Redeemable preference share
c. Non-cumulative preference share
d. Participating preference shares

**Deferred Shares:** These are scarcely issued; they are issued to promoters or founders of a company.

### 2.1.3 Methods of Selling Shares

The method of offer takes effect in compliance with the Nigerian stock exchange listing requirements, thus a firm may then issue securities which may take any of the following forms.

1. **Offer for Subscription:** This involves a direct issue to the public by floating a number of stock/shares implying that the firm is a public company. When the allocations are made, those who have been allocated shares are issued with shares corresponding to the amount and type they applied for or have been allotted. The result in these issues goes to the firm for financial expansion and modernization.

2. **Offer for Sale:** Here, existing shareholders offer their shareholding or part thereof for public subscription. This does not result in new issue of securities, though it is made public by means of prospectus. Since it is a transfer of ownership of share from existing to new holder, its proceeds goes to the selling shareholder or vendors.

3. **Stock Exchange Introduction:** Here, if a firm seeking quotation already has enough shares held by the emerging public; the council of exchange might know the security to be introduced into and listed on the market, and no new or existing one needs to be sold. Following the introduction of the firm to the Nigerian stock exchange (NSE) the firms share gains higher / greater market ability, enabling it to obtain fresh funds in future at lower cost.

4. **In the Private Placing** with the permission of the council of exchange, the securities are placed with a broker/issuing house who then seek out prospective purchase or who sells
to his clients instead of being offered directly to the general public. The main reason for private placing is to reduce or to save on the cost of issue.

5. **Rights Issues:** This involves existing share holder buying more shares and often at concessionary price terms. It results in more or new securities being issued to existing shareholders. If subscriptions are involved, the proceeds go directly to the firm. The secondary or existing issues market is the mechanism which gives liquidity to the security listed on the stock exchange. In other words, it is the market for trading of existing securities.

**Dealing Procedure:** The procedure is that once trading starts, the securities are called out by an officer of the exchange to indicate interest by either biding for or offering the mentioned security at a price the stock broker estimates the security to be worth. This is in the form of auctioning. The general price making process begins when the board is called and stockbroker who has any security to sell or buy makes a price either as bid or offer; depending on the forces of supply and demand, and on his client’s instruction. If he has both buying and selling instructions, he will make on the selling price, he may make only one price for both bid and offer intentions (depending on the security concerned) thereby signifying his interest in making a cross deal. The motto of the stock exchange is “my word is my bond” meaning that members cannot go back on the word on any transaction executed; and concluded transactions on the floor of NSE are binding on members.

**Transfer Procedure:** A stock/share certificate represents the investment holding in any corporate establishment. In the transfer procedure, the share owned can be transferred at will by the owners. Such exchange ownership takes place by means of cancellation in the books of the company, the name of the owner (seller) and the entry into the books, the name of the buyers to whom a new certificate is issued. This transferred of ownership involves established rules and regulations which make the procedure for securities transfer a little bit complicated. An investor’s wishing to sell securities must in addition to giving orders to his stockbroker, complete and sign a transfer form. The completion of a transfer form by the transferee is to enable the firm update its share register and appropriately corresponding with the new owner.

### 2.1.3 The Nigerian Industrial Sector

Prior to Nigerian Independence, the business climate was almost totally dominated by the Colonial and other European Multinational companies like United African Company (UAC), GB Olivant, Unilever Plc, Patterson Zechonics, Leventis, etc. These companies primarily engaged in bringing into Nigeria finished goods from their parent companies overseas. These companies have vast business experience and strong capital base, and dominated the Nigerian economy. The government of those days encouraged them to become stronger by giving incentives as favourable tariff and tax concessions (Ayozie, 2011). Okoye, Nwisenyi, and Eze (2013) tracing the history of industrialization in Nigeria averred that Britain, the Nigeria’s colonial master, developed the colonial economy in such a way that at independence, the major industries operating in the country were owned and controlled by foreigners, mostly British metropolitan capitalists.

Towards the tail end of the 1950s, the Nigerian Industrial Development Bank (NIDB) was founded to assist potential entrepreneurs to get involved in Agriculture exploration of national resources, Commerce and Industrial production. This time and the early 1960s saw the massive increase in Nigeria import market, while the Nigerian economy became largely dominated by very few large...
foreign firms (Ayozie, 2011). Dada (2003) posits that by 1960, all the manufacturing enterprises were set up with private capital under private foreign initiatives. In a more detailed analysis, however, Kibly (1969) records that of the paid up capital of 321 (largest) limited companies surveyed in 1964, sixty eight percent was of foreign investment. Twenty two percent was owned by the Nigerian government and ten percent was owned by private industrials”.

A document by the Bureau for public enterprise (BPE) stated that “A policy of import substitution dominated post-independence Nigeria’s industrial development. This policy was pursued vigorously via the national development plan, which resulted in the commissioning of various industrial projects (Okoye, Nwisienyi and Eze, 2013). For example, the share of food and textile products in manufacturing output fell from 51% in 1973/74 to 36% in 1977/78, while the share of durable goods with low value added rose from 7% to 19% during the period. Within the durable goods subsector itself, the share of transport equipment, which has low value added, rose from about one-tenth of one percent to 11% during 1971/72–1977/78. The net effect of this is that import dependency was fostered in the manufacturing sector in the 1970s (Ayozie, 2011). In the same period, private sector investments in manufacturing grew as a result of various incentives, such as the pioneer status and approved users schemes put in place by the government. Between 1970 and 1977, Nigeria experienced a great industrial revolution.

During the interval, the Nigerian Banking Industry witnessed three main development plans. The first is the indigenization of the banking systems. The second is the renewed boom in indigenous banking where banks were established not by individual but the state government. The third and final characteristic of the period is the financial system. The indigenous enterprises Promotion Decree of 1972 was the leading factor to this boom that was experienced then. The distinguished economist, Dr. Pius Okigbo whose committee was set up on April 5th 1976 which made its report available in 1977 and the government white paper on it contributed in making a new era in the Nigerian financial system, high geographical concentration and production costs, low value added, serious under-utilization of capacity, a high import content in industrial output, and a low level of foreign investment in manufacturing. The situation worsened as the foreign earnings from oil started to decline ignorantly in 1980s, by this time the government has invested heavily in a diversified portfolio of industrial project including salt, cement, iron steel and sugar. The poor returns from these projects, the low capacity utilization and various other compounding factors helped to plunge the economy into recession. Okoye, Nwisienyi, and Eze (2013) noted that against the background of this poor economy that the government embarked on the structural Adjustment Programme (SAP) in July 1986. SAP aimed at ameliorating the economic situation to increase local value added and capacity utilization in the industrial sector and to create sustainable industrial development.

The manufacturing sector encapsulates a wide range of industrial activities, from informal sector enterprises using simple technology to heavy capital goods industries in the automotive and electrical equipment sector. Out of this, a wide spectrum of light consumer goods dominates the manufacturing profile. These have been nurtured and reinforced by regimes of “easy” import substitution, localization of assembly and final processing of relatively simple products. The earliest attempt at manufacturing saw the establishment of agro-based industrial concerns such as vegetable-oil extracting plants, tanneries and tobacco processing units. Textiles, breweries and cement manufacturing concerns soon followed (Chete and Adenikinju, 2002).
CBN statistical details of the manufacturing structure shows that Consumer goods industries dominate the sector in terms of both value added and employment. These industries accounted for as much as 75% and 70% of the sector’s total value added and employment, respectively, in 1984. The leader in the subsector is food, beverages and tobacco, contributing 32 and 20% of value added and employment in 1984. It is followed by textiles and wearing apparel, paper products and printing, plastic and rubber products, etc. In the food subsector, the key activities include baking, grain milling, processing of dairy products and sugar, and confectionery processing. Beverages inclusive of beer and soft drinks contribute as much as 20% of the manufacturing sector’s value added. The textile industry also contributes significantly to value added and employment (Chete and Adenikinju, 2002). Metalworking, and chemicals and paints were the most important in intermediate goods subsectors in this category in terms of their relative contribution to value added, while metalworking, sawmill and wood products, and building materials are the leading subsectors in terms of employment.

Cement processing constituted a very important activity within the building materials category; cement plants were expanded and new ones established in an effort to meet the housing and infrastructure development programme. Today, many of the cement plants face the problem of low capacity utilization despite the presence of considerable excess demand, which has induced high retail prices and windfall profits for middlemen. Other features of the industrial sector include low value added, high production costs deriving from the exorbitant cost of plant and equipment, high cost of construction and of expatriate skilled labour, the fact that firms provide infrastructure investment themselves, and the high geographical concentration of public investment around highly capital-intensive sectors by international standards (steel, fertilizer, pulp and paper, cement, petrochemicals, etc.).

According to Ayozie (2011), most Nigerian small manufacturers, in a higher degree, depend on imported equipment and raw materials for their operations. With the over-devaluation of naira, vis-à-vis other foreign currencies, they are not finding it easier to secure these items abroad. They therefore resort to poor locally produced alternatives. The result is usually poor quality products. This may be one of the factors responsible for Nigerian consumers’ unquenching appetite for imported goods, even though many of these foreign goods are equally of poor quality especially those coming from Asian and Far East countries. High quality raw materials are important to producing high quality product. With the increasing demand for imported goods in Nigeria, dubious local and foreign importers are dumping fake products which go further to frustrate small scale manufacturers and seriously affect our hard earned foreign exchange. Besides, small-scale producers lack good quality control in their operations. In this respect, they rely mainly on replacing faulty products instead of developing good quality control system (Onwuchuruba, 2001). Only very few Nigerian small manufacturers are aware of the nature of competition facing them. They estimate their success only through sales revenue without considering their market share. Even, some do not know their market segments on which to focus their operations.

To stimulate domestic production Mojekwu and Iwuji (2012), argued that the structural adjustment programme (SAP) was initiated in 1986. SAP brought with it escalation in exchange rate resulting in high cost of raw materials and spare parts. The SAP programme ended up being a failure. The harsh economic situation triggered a chain reaction, such as high cost of production, scarcity of
raw materials and spare parts and huge inventory of unsold goods due to low purchasing power. All these factors impacted negatively on capacity utilization (Banjoko, 2002). Current governmental programmes aimed at reversing the economic trend are National economic empowerment and development (NEEDS) and vision 2020, which according to the proponents will put Nigeria among the first twenty (20) developed economies by the year 2020.

2.1.4 Capital Market and Industrial Development

Many experts share the view that industrialization is a prerequisite for the economic take-off or economic developments of any country. It is believed that it is only industrial development that can break vicious circle of poverty and underdevelopment. However, just like they say industrialization is a prerequisite for economic development, availability of capital stands as a sure guarantee for effective industrialization and that is where the capital market comes in. The capital market forms the major source of capital for industries in developing economies. To Okoye, Nwisiennyi, and Eze (2013) "finance is the link between the capital market and industrial development……… the relevance of the capital market to industrial growth of any nation can be seen in the role which capital markets play in the mobilization of funds and their eventual transfer to businesses, the government and individuals that need those funds for investment. Therefore, the need for an effective capital market stems from the realization that through it, savings can be mobilized and channelled for productive investment". Apart from that, the ability to mobilize funds easily and cheaply on the capital market has also been found to be an incentive for enterprises to expand their operations and diversify into large-scale enterprises.

Although, investment fund for industrial development can be obtained from non-capital market sources these other sources of funds are often constrained by inherent weakness. For example, one of such sources namely, “internal funding”, is usually insufficient, hence the need to borrow from the money or capital market to supplement internal resources. Since the money market operates at the short-end of the credit market, more reliance is placed on the capital market for business which requires long term funds. Thus, the importance of capital market lies in its ability to sustain projects with long gestation periods. Since industrial enterprises belong to this category of projects, long-term capital from the capital market is most relevant in sustaining industrial development (Ojo, 1998).

Capital market may also affect economic activities through the creation of liquidity. Liquid equity market makes available savings for profitable investment that requires long term commitment of capital. Hitherto, investors are often reluctant to relinquish control of their saving for long periods. As asserted by Bencivenga, Smith and Starr (1996), without liquid capital market there would be no industrial revolution. This is because savers would be less willing to invest in large, long term projects that characterized the early phase of industrial revolution. Stock market contributes to economic growth through the specific service it performs either directly or indirectly (Owolabi and Ajayi, 201). Notable among the functions of the stock market are mobilization of savings, creation of liquidity, risk diversification, improved dissemination and acquisition of information, and enhanced incentive for corporate control, improving the efficiency and effectiveness of these functions, through prompt delivery of their services, can increase the rate of economic growth (Oloyede, 2001). At any stage of a nation’s development both the government and the private sectors would require long-term capital. For instance, companies would need to build new factories, expand existing ones, or buy new machinery.
Government would also require funds for the provision of infrastructures. All these activities require long-term capital, which is provided by a well-functioning stock market (Olowe, 1997).

The development of the capital market, and apparently the stock market, provides opportunities for greater funds mobilization, improved efficiency in resource allocation and provision of relevant information for appraisal (Inanga and Emeruga, 1997). Stock market contributes to economic growth the specific services it performs either directly or indirectly. Notably among the functions of the stock market are mobilization of savings, creation of liquidity, risk diversification, improved dissemination and acquisition of information, and enhanced incentive for effectiveness of these functions through prompt delivery of their services which can augment the rate of economic growth. At any stage of nation’s development, both the government and the private sectors would require long-term capitals. For instance, companies would need to build new factories, expand existing ones, or buy new machinery. Government on their part would require funds for the provision of infrastructures. All these activities require long term capital, which is provided by a well-functioning capital market.

Edo (1995) asserts that securities investment is a veritable medium of transforming savings into economic growth and development and that a notable feature of economic development in Nigeria since independence is the expansion of the stock and shares. Nwankwo, (1985) noted that one of the major reasons for the establishment of the Nigerian capital market is to Nigerian is the credit base and provide the necessary machinery needed for short-term and long-term financing arrangement. They provide local investments outlets for the retention of funds in Nigeria and for the investments of funds repatriated from aboard. These become important as the level of investment distinguishes a developed from a developing nation.

Idyu, Ajekwe, and Korna (2013) documented that the market played an unrivalled role in the privatization of the Structural Adjustment programme. They observed that between 1988 and 1995, 35 enterprises were privatized through public offer of shares. The offers, which totaled 1.2 billion shares and valued at N1.5 billion, created opportunities that can be accessed through the Capital market. The gains to the economy in terms of efficient operation of privatized enterprises and cessation of government budgetary subvention to the firms are some of the contribution of the market to the economy. By ensuring continuous substitution of the shareholders of securities, Idyu, Ajekwe, and Korna (2013) noted that the market transforms short-term oriented funds into longer term funds, while realized capital gains further stimulate the expansion of the economy. It is pertinent to state that many of the companies on the main list are affiliates or subsidiaries of multinationals, such as Dunlop, UAC, Nestle, 7-Up, Cadbury, Nigerian Breweries, Guinness, Glaxo, Sterling products, Mobil, Agip, etc. whose operation has impacted favourably on the level of technology of local raw materials, and development of indigenous technical manpower capability through the process of learning-by-doing. For example, the companies in the food, beverages and brewing sub sectors, have successfully, developed suitable local materials to replace imported ones, while some companies have been actively engaged in the exportation of their products thereby contributing to the growth of non-export business. The introduction in 1985 of the SSM to attract small and medium companies to raise funds for expansion and modernization, led to the creation of some jobs by these companies, while at least four of them have moved to the main list. The market has therefore, aided the growth and transformation of SMES to large-scale enterprises.
The Nigerian Capital Market played a paramount role in the privatization of the State Owned Enterprises (SOEs) by giving creditability and transparency to the exercise. Within four years of the privatization and commercialization exercise, 88 out of 111 SOEs were privatized, realizing a gross proceeds of N3.7 billion (Anyanwu, Oyefusi, Oaikhenan and Dimowo, 1997). Between 1989 and 2001, a total of N25.6 billion was realized from the exercise. Also, the shares of the SOEs were sold to Nigerians and associations in all local government through public offers. Although a small market by international standard, the Nigerian stock market is one of the leading markets in Sub-Saharan Africa and has made some notable strides in recent years. The number of issuers has continued to grow with some record-breaking issues. Issuers have cut across economic sectors and have utilized funds to meet various long-term funds requirements and to a lesser extent ameliorate working capital pressures.

2.2 Empirical Review
It is worthy to note that very few studies exists on capital market and industrial development in Nigeria, an implication that there is lack of depth on studies in this area. However, the major relevant empirical studies that provides more insight have been reviewed in this section. Greenwood and Smith (1996) in their study suggests that well-functioning capital markets have the potential to promote long-term economic growth. The study postulate that capital market indicators such as market liquidity, capitalization, turnover, and efficient allocation of financial resources are strongly associated with economic growth and capital accumulation for high productivity. They conclude that stock markets lower the cost of mobilizing financial savings for investing in productive business entities.

Demiurgic-Kunt and Maksimovic (1998) cited in Henry (2000) found a relationship between economic growth and the stock market activity in the field of transmission of security (secondary market) more than in funds channeling (primary market). Barlett (2000) demonstrated that a rising stock price raises the wealth of the economy (wealth effect) by encouraging increase in consumers’ consumption and increase in investment. Udegbunam (2002) examined the effect of openness, stock market development and industrial growth in Nigeria, utilizing annual time series data covering the period from 1970 to 1997. This study employed the granger causality test and ordinary least squares (OLS) regression techniques in testing the causality relationship and in estimating the specified relationship, respectively. The result of the granger causality test showed that there is no causal relationship between stock market development, openness and economic growth in Nigeria during the evaluation period. The empirical results of the OLS estimate however showed that stock market development has positive and significant relationship with economic growth in Nigeria.

Ewa, Esang and Bassey (2009) appraised the impact of the capital market efficiency on the economic growth of Nigeria using time series data from 1961 to 2004. They found that the capital market in Nigeria has the potential of growth inducing but it has not contributed meaningfully to the economic growth of Nigeria because of low market capitalization, low absorptive capitalization, illiquidity, misappropriation of funds among others. Aregbeyen (2007) in a related research investigated the determinants of firm growth selected from the Nigerian firms that are quoted on the Nigerian Stock Exchange (NSE). The study sampled 188 firms for the period of 1995-2005. The results obtained reveal that for the manufacturing firms, size of the firms, capital intensity, foreign equity holding, governance structure, inflation, financial constraints and vertical
integration are significant in explaining the firms’ growth rate. Contrary to postulations of the theory the result obtained showed that the more financially constraints the manufacturing firms are, the better the growth performance.

Donwa and Odia (2010) empirically analyzed the impact of the Nigerian capital market on her socio-economic development from 1981 to 2008. The socio-economic development was proxy by the gross domestic product (GDP) while the capital market variables considered included market capitalization, total new issues, volume of transaction and total listed equities and Government stock. Using the ordinary least square it was found that the capital market indices have not impact significantly on the GDP. The government is therefore advised to put up measures to stem up investors’ confidence and activities in the market so that it could contribute significantly to the Nigerian socio-economic development.

Okafor and Arowoshegbe (2011) examined the impact of the Nigerian capital market performance on the economic development of Nigeria. The Ordinary Least Square (OLS) regression models were used for the analysis of data collected. Multiple regression models were used with aid of Microfit Interactive Econometric Software Package. The results indicate that: Market Capitalization, All-Shares Index and number of listed companies were positively related to and capable of influencing Gross Domestic Product, while Volume of transactions and Market Capitalization were positively related to Gross Fixed Capital Formation. The results have proved that the performance of the capital market impacts positively on the economic development of Nigeria. The study concludes that the place of the capital market as a catalyst for Nigeria’s Socio-economic development will remain more significant in the years to come, as it helps to support national growth and development.

Fadeusia (2011) analyzed the dynamics of manufacturing firm’s growth in Nigeria using panel analysis. Multi-stage sampling technique was used to survey 45 manufacturing firms quoted under the Nigerian Stock Exchange (NSE) between 1989 and 2008 with the estimated dynamic panel model revealing that the manufacturing firms finance mix, utilization of assets to generate more sales, abundance of funds reserve and government intervention as indicated by Tobin’s Q, operating efficiency, capital reserve and government policies are significant determinants of manufacturing firms’ growth and dictated their dynamics in Nigeria. Also, that the Gibrat’s component enhanced the growth rate of manufacturing firms’ sales, profit and capital employed dynamically in the manufacturing sector.

Nwakanma and Nnamdi (2012) evaluated the extent to which market capitalization of the Nigeria stock exchange reflects the net sectoral investments of corporate organizations quoted therein. Covering the period 1984 to 2009 (26yrs), the study population consists of all the thirty (30) classified sectors of the market, while the study sample is made up of the eighteen (18) sectors with operational activities over the period of study. Multiple correlation and stepwise regression techniques are utilized. The results establish a significant multiple correlation between the Nigerian Stock Market Capitalization and Corporate net sectoral investments, while net corporate investments in four sectors of capital market activity–petroleum marketing, building materials, packaging and banking are found to significantly contribute to variations in Nigeria’s GDP. It is recommended that these four sectors should continually enhance their capitalizations to facilitate further investments and also, engage in product diversification.
Odetayo and Sajuyigbe (2012) examined the impact of Nigerian capital market on economic growth and development between 1990 and 2011. Data were collected from Security Exchange Commission reports, Nigerian Stock Exchange Review Reports, Central Bank of Nigeria Statistical Bulletin respectively and ordinary least square method of regression was used with aid of STATA version 10 software packages to analyze the data. The result showed that capital market indices have impact significantly on the GDP. The study recommends among others that government should put up measures to build up investors’ confidence in the capital market by fair transactions, increase investments instruments in the market, provide basic infrastructures and disabuse the mind of investors from buy and hold securities syndrome.

In his empirical study, Oke (2012) examined the effect of capital market activities on the development of the Nigerian oil industries, utilizing annual time series data covering the period from 1999 to 2009 under the framework of co-integration technique and error correction mechanism. The result of the co-integration test showed that there is equilibrium long run relationship among the variables in the model. The results of the empirical estimation showed that stock market capitalization and stock market prices have positive effect on the development of oil and gas industry in Nigeria in the short run but negative impact on the sector in the long run.

Acquah-Sam and Salami (2013) assessed the extent of knowledge about capital market activities, the relationship between this level of knowledge and participation in capital market activities, and the factors that promote capital market knowledge and participation in Ghana. The study used Chi-square and descriptive analysis to explain the variables under investigation. The results revealed that majority of respondents have little knowledge about capital market activities, and that the level of knowledge about capital market activities significantly and directly relates to capital market participation. Schooling, media publications, social interactions, and one’s occupation or profession are all major factors that appear to promote knowledge about capital market activities.

Idyu, Ajekwe, and Korna (2013) sought to determine the impact of the Nigerian capital market on the industrial sector component of the Nigerian gross domestic product. An ex-post facto research design was adopted using secondary data to determine the level of impact on the growth of the Nigerian industrial sector for the period 1990 – 2009. The ordinary least square (OLS) estimation technique was adopted. The results showed (i) a positive significant impact of the market capitalization on industrial sector component of the gross domestic product and (ii) a positive significant impact of the market capitalization on average capacity utilization rates of the manufacturing sector. The result however showed (iii) a positive but non-significant impact of the annual market capitalization on industrial loans of the stock exchange. It was therefore concluded that every effort must be made by government and market operators to make the market viable and result oriented to further improve the economy.

Okoye, Nwisienyi, and Eze (2013) examined whether the growth of the Nigerian capital market has impacted in any significant way to the growth and development of the industrial sector and hence the economic development of the country in general. To achieve this objective; the study examines a number of relationships between the capital market and the industrial sector, such as the proportion of the manufacturing sector in the total market capitalization, or the relationship between the GDP and market capitalization, manufacturing index, New issues, market access to
credit, trading values etc. to determine the types of influence exerted on the industrial sector by the capital market. The review of available literature indicates that the capital market is a common feature in any modern economy and is reported to promote the growth and development of the real sector in our case there are indication of positive links between the stock market and industrial sector development but the impact has been severely limited by adverse economic environment such as poor economic infrastructures, bureaucratic bottlenecks, corruption and poor corporate governance, regulatory and supervisory frameworks.

Aklahyel, Askira and Gaya (2014) examined the role of capital market in the industrial development of Nigeria. It adopted a theoretical discus to ascertain whether the capital market enhance industrial development in Nigeria. It found that the capital market facilitates the efficient mobilization and allocation of funds for production purposes in order to stimulate economic growth and development of the nation through industrialization. Finally, the paper recommends that government should introduce some tax incentives to motivate and encourage investors among other recommendations.

Akinlo, and Lawal (2015) examined the impact of exchange rate on industrial production in Nigeria over the period 1986-2010. The results of the study obtained using the Vector Error Correction Model (VECM), confirm the existence of long run relationship between industrial production index, exchange rate, money supply and inflation rate. Moreover, exchange rate depreciation had no perceptible impact on industrial production in the short run but had positive impact in the long run. Finally, the results show money supply explained a very large proportion of variation in industrial production in Nigeria.

Ibi, Joshua, Eja and Olatunbosun (2015) examined the relationship between capital market and industrial sector development in Nigeria, utilizing annual time series data covering the period from 1980 to 2012. The study adopted both descriptive and analytical methodology in its investigation. The descriptive methods were used to analyze trend performances of the variables captured in the study. The analytical methodology employed modern econometric techniques such as the unit root test, co-integration test, granger causality test and the error correction mechanism (ECM) in the estimation of the relevant relationships. The results of the co-integration test showed that there existed a long run equilibrium relationship among the variables. The results of the granger causality test as presented showed that there is a bi-directional relationship between industrial output and market capitalization and between industrial output and number of deals, but a unidirectional causality relationship running from industrial sector development to value of transaction. The results of the short run dynamics revealed that capital market has positive and significant impact on industrial output in Nigeria via market capitalization and number of deals. On the other hand, value of transaction has negative and significant impact on industrial output in Nigeria during the evaluation period. The results also showed that real gross domestic product has a positive and significant impact on industrial output in Nigeria, while exchange rate and gross domestic investment have negative and significant relationship with industrial output in Nigeria. The study therefore recommended that the government should implement appropriate reform policies aimed at ensuring efficiency in the workings of the stock market in Nigeria. Also, there is need to reduce the cost of raising capital by firms on the stock as high cost and other bureaucratic delays could limited the use of capital market as veritable source of raising funds for investment.
3.0 Methodology

3.1 Research Design
A research design is a plan that describes how, when and where data are to be collected and analyzed (Parahoo, 1997). The research design adopted in this study is the ex-post facto. This was used because the data used were already documented as reports or statistical data. Moreover, the variables used cannot be manipulated or controlled as they have already happened.

3.2 Sources of Data
This study employed secondary data obtained from Nigerian stock exchange (NSE) fact book, Security and Exchange Commission (SEC) market bulletin and Central Bank of Nigeria (CBN) Statistical Bulletin from 1985-2016. The data collected for analysis were:

- **Market Capitalization (MCP):** Market capitalization is a measure of the market size. It is equal to the total value of all listed shares in the market at each point in time.
- **Listed Number of Companies (NOL):** The listed number of companies is the number of all companies listed in the country’s stock exchange at any point in time. It reveals the growth in capital market activities and overall growth in the economy.
- **Value of Transaction (VTR):** This is equal to the total value of daily traded shares in the market at each point in time. The higher the rate of transaction, the more the value of the company's shares and are able to raise capital.
- **All Shares Index:** This is the total number of deals carried out at the stock market.
- **Growth of Industrial Sector Output (GIND):** This is the growth rate of the output of industrial sector in contribution to the GDP.

3.3 Model Specification
To specify the impact of capital market on industrial sector growth model, the researcher first identifies the variables and the relationship between the variables.

\[ \text{IND} = f(\text{ASI, MCP, VTR}) \]

Equation (1) is rewritten econometrically as follows;

\[ \text{IND}_t = b_0 + b_1 \text{ASI}_t + b_2 \text{MCP}_t + b_3 \text{VTR} + U_t \]

Where;

- IND = Industrial Sector Output
- ASI = All Share Index (ASI)
- MCP = Market Capitalization
- VTR = Value of transactions
- \( b_0 \) = intercept
- \( b_1, b_2, b_3 \) = parameter estimates
- \( U_t \) = Error term

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t = time

The trend model aimed at measuring the change as adopted by Idyu, Ajekwe and Korna (2013). The impact of value of transactions, all share index, and market capitalization on industrial sector output is examined in the model. The growth rate of each of the variables under examination will occur if the coefficient of the time variable (t) which is $\beta_1$ is positively significant. The negative but significant value of the coefficient of the squared time variable ($\beta_1$) will imply deceleration in growth rate of the variables while stagnation in growth rate of the variables will occur if the coefficient of the time variable (t) is not significant.

The granger causality test was applied. This is to test the direction of causality, that is, whether any of the independent variables causes DEP to move or IND tends to cause their movement. This is represented as follows:

IND granger cause MCP, or MCP granger cause IND
IND granger cause VTR, or VTR granger cause IND
IND granger cause ASI, or ASI granger cause IND

3.4 Method of Data Analysis

Summarily, the following econometric analytic models employed are: multiple regression, ADF and Granger causality.

4.0 Data Analysis and Discussion of Findings

4.1 Data Analysis

Data were obtained from the CBN Statistical Bulletin from 1985-2017 (Appendix 1). Co-integration, Augmented Dickey Fuller, Error correction model and regression analysis were done on the data using e-view software.
Table 1: OLS Analysis

Dependent Variable: IND  
Method: Least Squares  
Date: 12/15/18  Time: 16:38  
Sample: 1985 - 2017  
Included observations: 33

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>1353134.</td>
<td>811533.5</td>
<td>1.667379</td>
<td>0.1066</td>
</tr>
<tr>
<td>MCP</td>
<td>0.296930</td>
<td>0.114611</td>
<td>2.590773</td>
<td>0.0150</td>
</tr>
<tr>
<td>VTR</td>
<td>4.701849</td>
<td>1.723874</td>
<td>2.727491</td>
<td>0.0109</td>
</tr>
<tr>
<td>ASI</td>
<td>64.94280</td>
<td>72.24824</td>
<td>0.898884</td>
<td>0.3764</td>
</tr>
</tbody>
</table>

R-squared: 0.773622  Mean dependent var: 5751568.  
Adjusted R-squared: 0.749368  S.D. dependent var: 6252888.  
S.E. of regression: 3130396.  Akaike info criterion: 32.86769  
Sum squared resid: 2.74E+14  Schwarz criterion: 33.05090  
Log likelihood: -521.8830  Hannan-Quinn criter: 32.92842  
F-statistic: 31.89570  Durbin-Watson stat: 1.168203  
Prob(F-statistic): 0.000000

Source: E-views Output

Table 1 above shows that MCP has positive and significant relationship (prob.value=0.0150) with industrial sector. VTR has positive and significant relationship (prob.value=0.0109) with industrial sector output. ASI has positive relationship and insignificant relationship (prob. Value=0.0150) with industrial sector output in Nigeria. T

OR has negative relationship with industrial sector. That is the lower the turnover ratio, the higher the growth of industrial sector. The t-cal is -2.267492 with a prob. value of 0.0319 showing that turnover ratio has negative and significant relationship with growth of industrial sector output in Nigeria. Therefore, the alternate hypothesis is accepted that there is significant relationship between market turnover ratio and growth of industrial sector output in Nigeria.

VNS has negative relationship with industrial sector. That is the lower the value of new shares, the higher the growth of industrial sector. The t-cal is -0.518764 with a prob. value of 0.6083 showing that value of new shares have negative and insignificant relationship with growth of industrial sector output in Nigeria. Therefore, the null hypothesis is accepted that there is no significant relationship between value of new shares and growth of industrial sector output in Nigeria.

The $R^2$ at 98.91% indicates that the variables are strongly fitted implying that 98.81 percent of the total variation found in industrial sector is explained by the variation of market capitalization, all share index, value of new shares and turnover ratio. This was also confirmed by the adjusted $R^2$ found to be 98.74%. The F-test indicates that F-cal is 592.4348 with a prob.value of 0.00000 implying that the overall regression is statistically significant and all the variables jointly impact on the industrial sector. However, the D-W statistic is approximately 1.189863 which shows the
presence of positive auto-correlation, this means that our parameter estimate must be accepted with caution because of the possibility of spurious regression results.

Table 2: Summary of ADF Unit Root Test Result

<table>
<thead>
<tr>
<th>Variables</th>
<th>ADF Unit Root Statistics</th>
<th>Order of integration</th>
</tr>
</thead>
<tbody>
<tr>
<td>VTR</td>
<td>-2.340983</td>
<td>1 (1)</td>
</tr>
<tr>
<td>MCP</td>
<td>-10.43231</td>
<td>1 (1)</td>
</tr>
<tr>
<td>ASI</td>
<td>-5.399377</td>
<td>1 (1)</td>
</tr>
<tr>
<td>IND</td>
<td>-6.015016</td>
<td>1 (1)</td>
</tr>
</tbody>
</table>

Critical values: 1%= -3.670170, 5%= -2.963972, 10%= -2.621007

Source: E-Views Output

Table 2 presents the summary results of the ADF Unit root tests carried out on all the variables of our models. From the table, it is evident that all the variables are integrated of order 1 meaning that they become stationary after the first difference. The Johansen co-integration tests were used to test whether there is long run relationship between the dependent variable and independent variables.

Table 3: Johansen Co-integration Test

Date: 12/15/18   Time: 16:47
Sample (adjusted): 1988 2017
Included observations: 30 after adjustments
Trend assumption: Linear deterministic trend
Series: IND MCP VTR ASI
Lags interval (in first differences): 1 to 2

Unrestricted Cointegration Rank Test (Trace)

<table>
<thead>
<tr>
<th>Hypothesized No. of CE(s)</th>
<th>Eigenvalue</th>
<th>Trace Statistic</th>
<th>0.05 Critical Value</th>
<th>Prob.**</th>
</tr>
</thead>
<tbody>
<tr>
<td>None *</td>
<td>0.892521</td>
<td>143.3326</td>
<td>47.85613</td>
<td>0.0000</td>
</tr>
<tr>
<td>At most 1 *</td>
<td>0.834278</td>
<td>78.64934</td>
<td>29.79707</td>
<td>0.0000</td>
</tr>
<tr>
<td>At most 2 *</td>
<td>0.541337</td>
<td>26.52343</td>
<td>15.49471</td>
<td>0.0008</td>
</tr>
<tr>
<td>At most 3 *</td>
<td>0.126425</td>
<td>3.919681</td>
<td>3.841466</td>
<td>0.0477</td>
</tr>
</tbody>
</table>

Trace test indicates 4 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)

<table>
<thead>
<tr>
<th>Hypothesized No. of CE(s)</th>
<th>Eigenvalue</th>
<th>Max-Eigen Statistic</th>
<th>0.05 Critical Value</th>
<th>Prob.**</th>
</tr>
</thead>
<tbody>
<tr>
<td>None *</td>
<td>0.892521</td>
<td>64.68327</td>
<td>27.58434</td>
<td>0.0000</td>
</tr>
<tr>
<td>At most 1 *</td>
<td>0.834278</td>
<td>52.12591</td>
<td>21.13162</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

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Max-eigenvalue test indicates 4 cointegrating eqn(s) at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values
The result of the co-integration shows there is 4 co-integrating equations among the variables which indicate that there is long-run relationship among the variables. The co-integration test is conducted at the lag interval test of 1 to 2 and there is linear deterministic trend in the data.

Table 4: Error Correction Model (ECM) Result

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>D(IND(-1))</td>
<td>-0.027232 0.129290</td>
<td>-0.210620</td>
<td>0.7724</td>
</tr>
<tr>
<td>D(MCP(-1))</td>
<td>-0.142575 0.099520</td>
<td>-1.432575</td>
<td>0.5100</td>
</tr>
<tr>
<td>D(MCP(-2))</td>
<td>-0.152980 0.099521</td>
<td>-2.001500</td>
<td>0.0491</td>
</tr>
<tr>
<td>D(VTR(-1))</td>
<td>4.815865 1.741729</td>
<td>2.764989</td>
<td>0.0036</td>
</tr>
<tr>
<td>D(VTR(-2))</td>
<td>2.946572 0.953000</td>
<td>3.091877</td>
<td>0.0006</td>
</tr>
<tr>
<td>D(ASI(-1))</td>
<td>-105.7744 54.26368</td>
<td>-1.949267</td>
<td>0.0681</td>
</tr>
<tr>
<td>D(ASI(-2))</td>
<td>-250.7217 38.39949</td>
<td>-6.529292</td>
<td>0.0000</td>
</tr>
<tr>
<td>ECT (-1)</td>
<td>-0.150671 0.066078</td>
<td>-2.280212</td>
<td>0.0337</td>
</tr>
<tr>
<td>C</td>
<td>-2377555 254606.0</td>
<td>2.837640</td>
<td>0.0071</td>
</tr>
</tbody>
</table>

R-squared 0.738119 Mean dependent var 492348.1
Adjusted R-squared 0.614071 S.D. dependent var 163852.8
Sum sq. resids 1.97E+13 Akaike info criterion 30.77119
S.E. equation 1017906. Schwarz criterion 31.24267
Log likelihood -436.1823 Hannan-Quinn criter. 24.81573
F-statistic 5.950237 Durbin-Watson stat 1.754796
Prob(F-statistic) 0.000000

Source: E-view Output

From the table 4, ECM result shows that Adjusted $R^2$ is 61.41% implying that 61.41 percent of change in IND, was jointly explained by the proxies. Error-correction coefficient has the expected negative sign -0.150671 with a prob.value of 0.0337 implying that there is significant relationship between capital market proxies and growth of the industrial sector in Nigeria. The F-cal is 5.950237 with a prob.value of 0.0001 implying that the variables jointly impact on industrial sector in the long-run.
Table 5: Granger Causality Test
Pairwise Granger Causality Tests
Date: 12/15/18   Time: 16:44
Sample: 1985 2017
Lags: 2
Null Hypothesis: Obs  F-Statistic  Prob.
MCP does not Granger Cause IND  30  0.18209  0.8346
IND does not Granger Cause MCP  4.35863  0.0238
VTR does not Granger Cause IND  30  0.08655  0.9174
IND does not Granger Cause VTR  5.61958  0.0096
ASI does not Granger Cause IND  30  0.51181  0.6056
IND does not Granger Cause ASI  1.04842  0.3654

For the causality test reported in table 5, analysis indicates that there is a uni-directional granger causality relationship between IND and MCP, running from industrial sector to market capitalization. There is a uni-directional granger causality relationship between IND and VTR, running from industrial sector to value of transaction. Result also shows that there is no granger causality between IND and ASI.

4.2 Discussion of Findings
The result of our analysis indicates that capital market indicators proxy by value of transactions, market capitalization, and All Share Index all jointly impact on industrial growth both in the short run and at the long run. This means that the stock market has a great responsibility in mobilizing long-term capital and conforms to apriori expectation on the significant role of the stock market which is the heart of capital market activities. It is in line with studies of Aklahyel, Askira and Gaya (2014); Ibi, Joshua, Eja and Olatunbosun (2015); Idyu, Ajekwe and Korna (2013); Okoye, Nwisiennyi and Eze (2013). The findings support the work of Nwakanma and Nnamdi (2012) who using multiple correlation established a significant relationship between the Nigerian Stock Market Capitalization and Corporate net sectoral investments. It is therefore not surprising that Aregbeyen (2007) in his study observed that financial constraints and vertical integration are significant in explaining the quoted firms’ growth rate. In order words, firms with low access to finances are bound to experience some level of stagnation and the capital market remains the most viable option not to remain stagnant. It could be explained that All Share Index which indicates the direction of trade provides the revelation that the instruments traded are too small to allow expansion of industrial growth. Hence, the need to provide more tradable instruments at the market.

5.0 Conclusion and Recommendations
This study examined the impact of the capital market on industrial sector in Nigeria. From the findings; there is no doubt that the capital market remains an important market for mobilizing capital for the industrial sector growth and development. The study has shown that capital market indicators have contributed to industrial sector development. There is therefore the need for repositioning of the capital market to serve as a primary purpose of developing industries in Nigeria through its financial intermediation capacity. It is obvious that companies which are the magic wand that can change the story overtime of any developing economy as witnessed in China,
Malaysia, Indonesia etc., are yet to be duly explored by the Nigerian government and given a place at the capital market owing to stringent registration policies. The problem of low power supply, high tax rate, poor funding of the educational sector, insecurity, huge investment on oil sector with outright neglect of small and medium scale industries by banks have contributed to the problem of industrial capacity utilization in Nigeria and needs attention as well.

Therefore the market should be reformed as a driver for industrial development in Nigeria. If rapid industrial development is the dream of the government and monetary authorities, listing requirement at the capital market must be made in such a way that medium scale industries are opportune to get listed. Much as the standard remains uncompromised, it has to be made to give room for wider participation. It also requires the need for the capital market to be diversified with more tradable financial instruments. This will give industrial firms more options to trade and raise capital at the market.
References


Data on the Variables employed in this study

Table 1: Industrial sector output, Market capitalization, value of transactions, all share index

<table>
<thead>
<tr>
<th>Year</th>
<th>Industrial Sector Output</th>
<th>Market Capitalization</th>
<th>Value of Transaction</th>
<th>All Share Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>1985</td>
<td>64875.76</td>
<td>6382.600</td>
<td>316.600</td>
<td>127.30</td>
</tr>
<tr>
<td>1986</td>
<td>61700.32</td>
<td>6794.800</td>
<td>497.900</td>
<td>163.80</td>
</tr>
<tr>
<td>1987</td>
<td>94685.21</td>
<td>8297.600</td>
<td>382.400</td>
<td>190.90</td>
</tr>
<tr>
<td>1988</td>
<td>126131.8</td>
<td>10020.80</td>
<td>850.300</td>
<td>233.60</td>
</tr>
<tr>
<td>1989</td>
<td>202986.3</td>
<td>12848.60</td>
<td>610.300</td>
<td>325.30</td>
</tr>
<tr>
<td>1990</td>
<td>259514.2</td>
<td>16358.40</td>
<td>225.400</td>
<td>513.80</td>
</tr>
<tr>
<td>1991</td>
<td>299576.2</td>
<td>23125.00</td>
<td>783.00</td>
<td></td>
</tr>
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