

Stock Market-Based Financial Development and Economic Growth with Reference To Nigeria: A Review of Literature

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Abstract

The objective of this paper is to survey the theoretical as well as the empirical literature review of the stock-market based financial development and economic growth in Nigeria. To the authors' best knowledge, this is the first comprehensive empirical literature review on the relationship between stock market development and economic growth in Nigeria. The study analyzes the empirical work from 1997 to 2014. Within this time frame, the authors reviewed over 50 articles from different academic journals. Most of the empirical studies employ ordinary least square and vector error correction regression model in their methodology. However, Nigerian macroeconomic environment experiences some structural changes. Nearly all of the reviewed works did not use an econometric method that employed structural breaks or dummy variables, in considering the structural changes in the financial time series data. This omission may lead to spurious or biased results. For further study the paper, therefore, suggests the use of a structural break or dummy variables in the econometric analysis

keywords: Stock Market, Economic Growth, Structural Breaks, Dummy Variables, Nigeria

Introduction

The growing interest in the relationship between stock market development and economic growth in Nigeria has increased the empirical works in the field especially in the last five years. The objective of this paper is to review the empirical studies on the relationship between stock market development and economic growth in Nigeria from 1987 to 2014. The study fills

in the gap by providing a better insight and a sense of direction for further study. The paper divided into three (3) sections. The first section reviews the theoretical background of the study. The second section is an overview of the stock market-based financial development in Nigeria. The third section contains the empirical literature review on the relationship. The section is subdivided into two parts. Part one contains the empirical review of the short-run and long-run relationship while part two contains the empirical work on the causal relationship. Lastly but not the least the authors give recommendation and suggestion for further study.

Background of The Study

According to traditional economists, physical factors of production such as labor, land, capital and technology are the factors responsible for economic growth. It was from 1986 onward that endogenous theories of economic growth become very attractive. The findings added that factors such as financial development, foreign direct investments, appropriate tax regulations and any other positive innovation in productivity are also important factors causing economic growth (John, 2012).

In his book *Lombard Street* Walter Bagehot (1873) believed that it was England's efficient capital market performance that leads to the industrial revolution (Kizito 2012). The work of Schumpeter (1932) and Goldsmith (1969) are among the first work of modern economists who regard the significant contribution of financial development on economic growth (Majid and Mahrizal, 2007). During 1950's and 1960's emerging economies, saw capital accumulation as the sole important factor that increased investment and economic growth. This belief led to negligence on the contribution of the financial sector on economic growth. The financial sector is now well acknowledged. After 1970, the efficiency and, stable financial system were considered vital for investment and growth. For this reason, the policy stance of many countries was overwhelming in favor of low-interest rates. Low, interest was believed to promote investment spending that facilitates capital accumulation (Eric and William, 2012).

McKinnon-Shaw Hypothesis of 1973 explains the idea that when financial sector works correctly and competitively it leads to increase in investment and affect economic growth. Many developing countries use the idea of this hypothesis to deregulate their financial sectors in order to achieve convergence of economic growth and development (Eric and William, 2012). In 1990's Taiwan, Korea and other Asian-Pacific countries made significant economic success.

According to Levine and Zervos (1998), many researchers have neglected the contribution of the stock market on long-term economic growth. It is recently that, some researchers divert their attention from examining the effect of financial development on economic growth through bank-based financial development to stock market-based financial development. Thus, there are few empirical works carried out on the relationship between equity market development and economic growth in developing countries.

According to Boca (2011), some individual regard stock market as a "gambling market", instead of perceiving it as a significant sector to the economic growth. However, Levine and Zervos (1996) asserted that *"One way, the stock market may affect economic activities is through their liquidity. Many higher return projects require a long commitment of capital. However, investors are reluctant to relinquish control of their saving for long periods. Without liquid market or other similar arrangements, less investment may occur in high return project."* Here Levine means that no financial institution can provide investment other than

the stock exchange in the firm that requires large amounts of capital. As such, without capital market many investments, which require a large sum of money, may not survive.

Obtsfield (1994) argued that stock markets are essential for the production because they reduce risk management via integrated international capital markets. However, this improves the resource allocation. Greenwood and Smith (1997) stress that a stock exchange eliminate the cost associated with pulling fund from various sources into the area where it is will invest. Therefore, this facilitates the production of goods and services that eventually lead to boost economic growth. In a nutshell, this shows that when market is competitively working in the economy, the stock market contribution to firms' financing will increase more than the contribution of the bank-based financial sectors.

Developing countries' equity markets have received radical changes in many aspects. For example, the introducing an automated internet transaction marketing of the exchange market securities causes the market to benefit with current economic globalization.

Nigerian Stock Market

There are various institutions that act or perform financial service to the public in Nigeria. Examples of these instituting are commercial bank, credit union, stock brokerage firms, asset management firms, insurance companies, building societies and so on. The Nigerian financial system is diverse in its structures and operations and remains a dominant force in the region. At end-December 2008, the Nigerian formal financial system comprised the the Central Bank of Nigeria (CBN), the Nigeria Deposit Insurance Corporation (NDIC), the Securities and Exchange Commission (SEC), the National Insurance Commission (NAICOM), the National Pension Commission (PENCOM), 24 deposit money banks (DMBs), 5 discount houses (DHs), 840 microfinance banks (MFBs), 113 finance companies (FCs), 99 primary mortgage institutions (PMIs), 5 development finance institutions (DFIs), 1,264 bureaux-de-change (BDC), 1 Stock Exchange, 1 Commodity Exchange, 73 insurance companies, and 3 pension funds (CBN Annual Report, 2008)

The Nigerian stock market commenced operation in 1961. The stock market, which was named Lagos Stock Exchange (LSE), was renamed in 1977 as Nigerian stock exchange (NSE). During the same year, the Nigerian stock market started with \$3 billion capital. The All-share exchange market index (AMI) was set up for calculating Nigerian stock market index. The regulatory body of the stock market is under the securities and exchange. The service in clearing, settlement and delivery of transactions in Nigerian stock exchange are done electronically by a center call Central Clearing System.

According to Aliyu Rano (2011), the advent of 2008 financial crisis rattled the market and caused the market indices to crash. Evidences, for instance, from the market shows that market capitalization (MC) stood at the amount of N10.18 trillion in 2007. It dropped to N6.96 trillion in 2008 and further down to N4.99 trillion in 2009. The MC rose up in 2010 to N6.29 trillion. In a similar vein, the All-Share Index (ASI), which was 57,990.12 Naira in 2007, dropped to 31,450.78 and 20,827.17 Naira in 2008 and 2009, respectively. Eventually the index picked up at 25,861.93 in the year 2010 (Rano, 2011). Policy responses to the turmoil by the NSE and regulators like the Securities and Exchange Commission (SEC) were: review of trading rules and regulations, delisting of some moribund companies (Rano, 2011). There was also strengthened of the corporate governance framework in both the NSE, and the regulator. The SEC, market signals were sharpened and standards were raised. The Nigerian stock market was affected negatively and immediately after the last banking consolidation in which massive resource was drained out from the market for banking sector, leaving other sectors

with less and unattractive shares, (Olisaemeka, 2009). Despite this, apart from South Africa, Egypt and Morocco, Nigeria is the African largest capital market in the continent of Africa CBN (2010).

The following are the challenges of Nigerian capital market observed by Olisaemeka (2009).

1. Global phenomenon: world economy does not isolate Nigeria from the financial crisis. when major equity markets market such as the USA, Britain, Japan China, Russia, France and others were in a poor situation this would also affect Nigeria. The world is now becoming a global village and so the interdependence of global economies is very evident that any changes in any part of the world affect other as well.

2. Pull-out of various foreign investors: this is also one of the factors that believe to have contributed to constant fall of the Nigerian equity market. Many foreign investors invest in the Nigerian capital market. When there are inconveniences in the foreigners home economies, they will dump the shares above the domestic investor's ability to possess. In a situation like this, the supply of the shares exceeds the demand leading to falling drastically in the price of shares. For example, Prof. Ndi Okereke-Onyuke observed that the foreign investment in 2008 is in excess of 6.3% of aggregate turnover. This change is a decline when compared with 2007.

3. Lack of necessary infrastructures and high production cost: Olisaemeka (2009) observed that the cost, of running business, is high in Nigeria. Basic facilities such as stable power supply and good road are lacking in the country. Thus, many of the equity markets quoted and unquoted companies such as Michelin Nigeria, Dunlop Nigeria Plc. and other have stopped production in Nigeria. High production cost usually causes a reduction in the profitability and impact negatively on the share price.

4. Impact of commercial banks: as a result of forced commercial banks capitalization of minimum N25billion (\$ 172, 000,000 in 2005 exchange rate), nearly all bank look for the assistance from Nigerian capital market. In less than three years, more than 20 banks have met the requirement amount from the stock exchange market. The result led to drain of the Nigerian capital market investment. Investment in the primary securities market increased, while investment in the in the secondary market failed drastically. A wide imbalance created between the two security markets.

5. Avalanche of private placement Offers: This is a situation where various private own companies did placement of equity at very low price. While, on the other hand, they look at the quotation of their share at very high price on the Nigerian stock market. Investors dump their shares in the secondary market. They purchase the higher price shares and dispose of the same immediately. However the Security Act, 2007, failed to put private firms under their control.

6. Inability of the federal government to plot bailout option. The federal government regards what is happening in capital market as strictly as private affairs. So no matter what happen to the market the government does not directly intervene to correct the disturbance

7. Regulation inconsistencies and pronouncement: prior to the crash of the share in the last financial crisis the apex of the Nigerian equity market had publically announced that some companies are alleged to manipulate shares. This information contributed to the crash in the market. After the crisis, the SEC was silence about the matter

8. Pressure from bank: After more than N1 trillion (\$6,880,000,000. In 2005 dollar) of banks' funds tapped in the capital market, banks become violent on those who borrow their funds. The commercial banks compel the borrowers to sell their shares at low price just to have a moment of respite. This act contributed to the market crash.

However, the above problems will be minimized through providing sound regulatory and supervisory body that provides enabling environment for investment in the Nigerian capital market.

In the recent years, Nigeria's capital market becomes an important investment area for investors seeking high-yield and value across the globe. For example, in 2012, there was a high demand in the Nigerian capital market. This high demand led to the Stock Exchange's All-Share Index to grow by 34% in 2012. The market is behind Egyptian 20 most active stock exchange's companies (EGX20 Capped Index) and Kenya's All-Share Index (CBN, 2010). The record of transactions in the stock exchange has improved in the first sixth month of the year 2013. The total sales at the end of 30th June, 2013 increased to N1.18 trillion. In addition, the total domestic sale is 50.76%, and foreign transactions represent the balance of 49.24%. The International Monetary Fund's (IMF) World Economic Outlook (WEO) has projected Nigerian five-year GDP (2013-2018). The rate was estimated to be 7.05%. The CBN published that the country's first quarter (2013) grew by 6.72. On the other hand, sound regulation, efficient risk management, and systemic risk mitigation enhance investors' confidence and ensure financial stability. All these are needed to ensure that Nigerian stock market benefits from both foreign and domestic investments.

The Empirical Studies on Nigeria

a. Empirical Studies Based on the Long Run and Short Run Relationship

Among the pioneers of empirical studies on the relationship between stock market development and economic growth in Nigeria are Nyong (1997), Anyanwu (1998) and Osinubi (1997 and 2001). Nyong (1997) used time series data from 1970 to 1994 where he computed an aggregate index for market capitalization. The author then used the index to find link between long-term economic development and the Nigerian stock market. The analysis used four indicators of the capital market development ratio. The indicators are stock market capitalization to GDP, the total value of stock transactions to GDP, the value of equity transactions relative to GDP and listings of the marketable securities. The author aggregated All the four measures into one composite index of capital market development where he used principal component analysis. The result showed that the market development index negatively and significantly related to long-run economic growth. However, his work did not control for other factors nor did it allow for the derivation of any conclusions on causality Osinubi (2002), examined whether the stock market promotes economic growth in Nigeria. The study used ordinary least squares regression (OLS) from 1980 to 2000. Osinubu used production function approach to develop the model. The variables in the analysis include capital market index, which consists of market capitalization ratio, new issue and value of transaction ratio. Other variables are gross capital formation, public capital expenditure, trade openness, debt ratio and dummy variables relate to political stability and policy adjustment program. The result of the study showed that there is a positive correlation between the measures of capital market and long-term economic growth. However, the effect of the stock market on economic growth is weak and insignificant. The finding is in line with Alile (1984) asserting that the Nigerian stock market contribution to gross fixed capital formation was very minimal fluctuating between 2.9 percent and 15.3 percent between 1971 and 1980.

Osinubi and Amaghionyeodiwe's (2003) carried out an empirical study of the relationship between stock market development and economic growth in Nigeria. The authors use a simple regression model. Their study reveals that there is no statistically significant influence

of the stock market on economic growth for the period 1980 to 2000. The study is, however, criticized because the number of observations of their data points is insufficient to obtain a statistically significant result. Their study contradicts with the endogenous theory of economic growth which show that financial development is important in determining economic growth

The study of Oke and Makuolu (2004) used annual data from 1986 to 2002 to investigate the degree of correlation between stock market development and economic growth in Nigeria. The stock market turnover and the total value of traded stock were used as a measure of the stock market. Their finding indicates the existing positive relationship between both long run and short run stock market development and economic growth in Nigeria. Their finding is similar to the work of Asiegbu and chidiebere (2010)

Olofin and Afangideh (2008) used three-stage least square technique from 1970 to 2005 to observe the relationship between financial structures and economic growth in Nigeria. The analysis started with unit root testing. All the variables were stationary at first difference. The result confirmed that both stock market-based and bank-based financial development have a similar significant impact on the real domestic sector of the economy. This is similar to the work of (Levine 1998)

Maku and Atanda (2009) conducted a study on whether macroeconomic indicators exert shock on the Nigerian capital market for the period 1984 to 2007. Vector error correlation method was used to capture the effect of macroeconomic on the Nigerian stock market index. The study used five macroeconomic variables to observe the shock on share return. The variables are consumer price index, broad money supply (M2), Treasury bill rate, exchange rate and real output growth. The result suggested that Nigerian Stock Exchange all share index is responsible to change in exchange rate broad money supply, inflation rate, and real output. This is in line with the empirical study of Kyereboah-Coleman & Agyire-Tettey (2008) who examined the relationship between macroeconomic indicators and economic growth and stock market performance in Ghana

In 2009, Ezoeha et al. (2009) examined the relationship between the stock market development and the growth of private investment in Nigeria. The study used quarterly data over a period of 1970 to 2006. Johansen Co-integration model was adopted to investigate the long-run trends in the variables. Vector error correction model (VECM) was used to estimate the relationship. The result from (VECM) suggested that the stock market development, the inflation, and the industrial production have positive effects on economic growth, which is similar to the empirical work of Osamwonyi & Evbayiro-Osagie (2012). However, banking development has negative effects. The stock market development found to be negative and non-significantly related to foreign direct investment. The researcher justification for this is the persistence cases of distress, and failure in the Nigerian banking system

Ewah et al. (2009) examined the appraisal of capital market efficiency on Nigerian economic growth. The study used annual time series data on market capitalization, government development stock value of transaction and interest rate money supply. They use multiple regression and ordinary least square method of analysis. The result shows that the market capitalization and total stock transactions have a positive sign. Thus, market size and rate of buying and selling securities increase the rate of economic growth. However, the coefficient of the log of the money supply is negative. It means that the Nigerian economy has the low absorptive capacity. The result is in line with the study of Ndebbio (2006) which found that some developing countries including Nigeria have low absorptive capacity. The study recommended that private investment should be encouraged; illiquidity of capital market

should be improved, and investment from government should be used in the productive sector of the economy.

Ujunwa and salami (2010) used ordinary least square technique to observe the relationship between the stock market and economic growth. The study employed annual time series data from 1986 to 2006. Value of the share traded, rate of turnover and market capitalization ratio were used to represent the stock market development variables while the dependent variable is represented by per capita gross domestic product. The result shows that market capitalization and rate of turnover are positively associated with economic growth. While the stock market liquidity is negatively correlated with economic growth. This contradicts the empirical work of Levine (1996) which shows that stock liquidity is important in determining economic growth.

A year later Adenuga (2010) conducted a study on the relationship between stock market development indicators and economic growth in Nigeria uses quarterly time series data from 1990:1 to 2009:4. The vector error correction model used stock market variable such as the total value of share traded ratio turnover ratio and market capitalization. The three stock market development indicators were all found to be positively significant. In the case of any shock, the speed of adjustment estimated to be 53.4% when regarding market capitalization as a measure of the stock market indicators.

Ahmed and Wahid (2011) used newly developed co-integration panel data technique and dynamic time series modeling approach to investigate the linkages between financial structure and economic growth in African economies. In Nigerian case, the Granger causality test rejects non-causality from financial indicators of real income growth. There is strong evidence that financial activity causing real income in the short run and long run causality in Nigeria. Therefore this study is similar to the finding of Anyanwu (1998) there is a strong empirical association between Nigerian stock market development and long-run economic growth.

In the following year, Ihendinihu & Onwuchekwa (2012) employed endogenous growth model on annual time series data from 1984 to 2011. The data were used to examine the relationship between the stock market performance and economic growth. The result indicates that All-share index market capitalization and number of listed companies are positively correlated with gross domestic product. Also, value of the total transaction and market capitalization are positively associated with gross fixed capital formation on the economic growth.

In the same year, Bernard and Austin (2012) investigated the role of the stock market development on economic growth in Nigeria from 1994 to 2008. Time series analysis was adopted using ordinary least square technique. In the study, the rate of market capitalization was used as a proxy for the stock market size. The turnover ratio and value of traded stock were used as a proxy for the total market liquidity. The results indicate that the turnover ratio is strong and positively correlates with economic growth. However, the market capitalization ratio is weak and negatively correlate with economic growth. Market capitalization ratio and rate of turnover are strong, and positivity correlated. The author suggests that government should encourage domestic investor so as to increase the rate of economic activities in the stock market.

A study conducted by Oke (2013) from 1985 to 2011 recorded a positive relationship between the operation of capital market and economic growth. While the market capitalization and number of dealing show a negative relationship with economic growth. The all-share index shows a positive impact on the long-term economic growth. Therefore, the study concludes that the increase in market capitalization and the number of dealing can reduce the economic

performance. The error correction mechanism indicates that the gross domestic product adjust to past short run distortion at high speed of 146%.

Okodua & Ewetan (2013) (2013) examine the relationship between stock market performance and sustainable economic growth. They applied bound testing co-integration approach from 1981 to 2011. The variables used are gross domestic product, market capitalization, value of traded securities, average dividend yield, interest rate and financial depth. The computed f-statistic lies above the critical upper bounds at 5 percent. Thus, the test indicates that there exist a long run relationship between dependent and independent variables. The result was later supported by the empirical study of Bakari et al (2014)

Oluwantunsi et al, (2013) used data from the central bank of Nigeria from 1999 to 2012 to investigate the impact of capital market and economic growth in Nigeria. Ordinary least square method of analysis was employed. The result shows that all capital market variables can jointly predict economic growth, but at an insignificant rate. The value of the total transaction is a significant independent predictor of economic growth. However, the result further shows that market capitalization and number of listed companies have a negative impact. Thus, they do not make an independent impact on economic growth. The study concluded that there is potential growth in the Nigerian capital market, but the market failed to do so because of low market capitalization, low absorptive capitalization, illiquidity and miss use of funds among others.

Maduka and Onwuka (2013) investigate both long run and the short-run relationship between financial structure and economic growth using annual time series data. They use a vector error correction model in the analysis. The result reveals that the Nigerian financial structure has negative and significant effect on the rate of economic growth. The study, therefore, recommend for sound financial policies in place that will encourage the growth of per capita GDP.

Osho (2014) used time series data from 1980 to 2010 to examine the role of stock market development and economic growth in Nigeria. Multiple-regression method of Ordinary least square was employed in testing the formulated hypothesis. The study used market capitalization ratio, the value of total traded ratio and turnover ratio as independent variables. The result revealed that the stock market capitalization and the total value of traded ratio are negatively affecting gross domestic product. While the total turnover ratio assumes positive effect on the dependent variable

The empirical work of Yadirichukwu and Chigbu (2014) examined the impact of capital market on economic growth in Nigeria. The study used annual time series data from 1985 to 2012. They utilized regression analysis where multivariate and error correction is used to observe four formulated hypotheses. The result shows that there is an inverse relationship between the stock market capitalization ratio and long-run economic growth. This is statistically significant. However, a long run relationship is observed between value of total the transaction and economic growth. The authors recommend that to improve investor's confidence, efficiency, and transparency, the favorable macroeconomic environment should be achieved.

Nwaolisa et al (2013) seeks to examine the impact of capital market on the Nigerian economic growth under a democratic rule. The study uses multivariate regression technique to analyze the time series data. The result reveals that while total market capitalization and All-share indexes exert positive impact on the GDP growth rate, the value of the stock has a negative effect on the GDP and not is significant.

Nurudeen (2009) investigated whether capital development increases economic growth in Nigeria. The study relies on an error correction approach to analyzing the time series data. The result indicates that market capitalization ratio increases economic growth. The study recommends the removal of the impediment of the stock market development that includes legal and regulatory barriers, development of infrastructures, taxes and so on.

The empirical work of Onwumere, et al. (2010) observed the relationship stock market and economic growth in Nigeria. They employ econometric method of ordinary least square method in analyzing the time series data. The stock market variables are market capitalization, turnover ratio and value of traded ratio. The result reveals that the economic growth has positive and non-significant impact on market capitalization ratio and turnover ratio while it has an adverse effect on the value of traded shares. For rapid economic growth and good performance of the financial system the study recommend for government intervention to encourage industrialization, provision of necessary facilities like, electricity, roads, dams and so on.

A fifteen-year time series analysis was conducted by Alajekwu & Achugbu (2012). The study investigated the relationship between the stock market and economic growth. While stock market capitalization was used as a proxy for market size, the value of traded ratio and turnover ratio were used as a proxy for market liquidity. The econometric result shows that the market capitalization and value of traded stock have a very weak and negative relationship with economic growth this contradicted the finding of Mary and Elizabeth (2012) which show that there is a positive correlation between the rate of transactions in the capital market and the development of Nigerian economy. However, stock market capitalization has a strong positive association with stock turnover. They concluded that the liquidity has a propensity to spur economic growth. Therefore, government should boost interest of domestic investors to invest so that as to promote stock market.

Ojo & Adeusi (2012) examined the relationship between capital market performances on economic growth over a period of 1981 to 2012. The authors use variable such as gross domestic product, market capitalization all share index, total value of transactions and number of deals. The model is used in this study based on Demirguc-kunt and Levine (1996). Trough using ordinary least square method, the study shows that capital market is a positive impact on economic growth. The authors recommend that the government should be objective in enacting laws and reform agenda that will improve the market.

Owolabi and Ajaji (2013) investigate the econometric analysis of the impact capital market on economic growth in Nigeria over a period of 1971 to 2010. To achieve these objectives the authors employ an econometric analysis of ordinary least square regression. The result shows that there is a positive relationship between economic growth and stock market variables in the analysis. This study is similar to the work of Tarhom (2014)

Babatunde (2013) investigates the relative contribution of equity market volatility on economic growth in Nigeria over the period of 1980 and 2010. The empirical work is one among many that employs Exponential Generalized Autoregressive Conditional Heteroskedasticity (EGARCH). The study shows that the issue of stock market volatility is quite persistent in Nigeria. This situation distorts economic growth in the country. For less volatile stock market the study suggests further strengthening of the manpower and processes of the Securities and Exchange Commission. This effort should enable the organization to improve its oversight function of the capital market and engender the improvement of its performance.

The empirical study of Nathanael (2014) examined the influence of stock price and capital market development on the economic development in Nigeria. The study used annual time series data from 1980 to 2012 where it covered both pre-structural Adjustment Program (SAP) and SAP era. The econometric technique of Johansen co-integration and ECM was employed. The study used capital market variable such as market capitalization, government stock rate, value of equities and new issues in the stock market. The result reveals that the value of equities (a measure of stock prices) is statistical significant and have a positive linear association with the economic growth in Nigeria this is in line with new economic growth theory. Also, government stock rate has a significant and positive correlation with the rate of economic growth in Nigeria

Rasaki, et al. (2013) seeks to determine the trend of capital market between 1981 and 2008 as well as to examine the relationship between capital market and economic growth in Nigeria. The study used explanatory variables such as market capitalization and the total value of domestic shares to represent capital market variables. The result indicates a steady rise in the macroeconomic variables considered i.e. gross domestic product, market capitalization, trade openness public capital expenditure and total value of shares traded

b. Empirical Studies Based on Causal Relationship

In his comparative study of Nigeria and South Africa, Ndako (2010) examined the long-run causality between financial development and economic growth. The study applied multivariate vector autoregressive and vector error correction model. Generalized impulse responds function and variance decomposition were also used. Using liquidity liabilities, the result for Nigeria conclude that there is bi-directional causality from financial development to economic growth.

Osamwanyi and Kasimu (2013) examined empirically the relationship between three sub-Saharan African countries including Nigeria. The study regressed five indicators of stock market, namely stock market capitalization, rate of stock turnover ratio, value of traded stock, number of listed securities and stock market index against the real gross product which is used as a proxy for economic growth. They made use of Granger causality test to conclude that there is no causal relationship between stock market development and economic growth in Nigeria this findings does not support new growth theory which shows that the stock market development lead to economic growth.

Aye (2013) carried out annual time series studies on the causality between financial deepening, economic growth and poverty in Nigeria with data covering the period 1960 to 2001. Vector Autocorrelation and Vector error correlation model were adopted; the result shows that there is no evidence of the long run relationship between finance and economic growth. Therefore, the author focuses on short-run causality where, the result shows a short-run unidirectional causality from financial development to poverty via growth

In the same year, Adefeso et al, (2013) investigated the long-run and causal link between the stock market and economic growth in Nigeria using data covering the period of 1980 to 2010. They employed error correction model (VECM) to analyze the data and draw policy inference. The result of the study found that the stock market development and economic development have long run relationship in Nigeria. The result also indicates that the stock market development and banking activities both Granger cause economic growth in Nigeria. The empirical study, therefore, recommends policy makers to emphasize on economic growth through the appropriate regulatory and macroeconomic policies to achieve sustainable growth. This study is in line with the empirical work of Anigbogu and Nduka (2014).

Chizea (2012) unpublished thesis focus on a question; whether, stock market development has had an impact on Nigerian economic growth. The thesis used annual time series data from 1980 to 2007. Stock market variables such as a market capitalization ratio, stock return and value of the total transaction were used. A multivariate vector autoregressive model (VECM) was employed in testing the existing relationship. The evidence of co-integration in the short run and long run shows that the stock market development has impacted on economic growth. Therefore, the finding is in support of endogenous growth theory that there is a positive relationship between financial development and economic growth. The Granger causality test concludes that there is a bi-directional relationship between stock market development and economic growth.

The primary aim of the study carried out by Okonkwo (2014) examined the impact of stock market development on economic growth in Nigeria using data from 1981 to 2012. The study started its analysis with stationary test of augmented Dickey-Fuller. The error correction estimate shows that the market capitalization and value of turnover ratio are all statistically significant. While the total value of the transaction is negatively significant. The VECM Granger causality revealed that there is unidirectional causality from listed securities to real GDP. A bi-directional causality runs from the ratio of the total traded stock to market capitalization ratio. The study suggests that the stock market can positively increase economic growth if enabled environment for enlisting companies is created.

The study carried out by Kolapo and Adaramola (2012), investigates the influence of the Nigerian stock market on economic growth using annual time series data from 1990 to 2010. The stock market is proxied by market capitalization, value of the total transactions, total new issues, total listed equities and government stocks. The empirical work employs Johansen cointegration and Granger causality tests. The result reveals that there is long-run relationship between the capital market and the economic growth. The Granger causality test suggests a bi-directional causality between economic growth and value of the total transaction and vice versa. Also a unidirectional causality runs from market capitalization to GDP which is similar to the empirical finding of Ojofedo and Edez (2014) who examined a strong positive correlation between financial sector and economic growth and that causality runs from market capitalization to GDP.

The empirical work of Osuala et al (2013) examined the causality between stock market development and economic growth in Nigeria. An econometric method of autoregressive distributed lag (ARDL) bound testing approach was applied. The study finds the evidence of long-run cointegration between stock market development and economic growth in Nigeria. Also, the causality test indicates that a unidirectional causality test from the total number of deals ratio to GDP in the short-run this is similar to the work of Bakari et al (2014). In the long run, there is no causality between stock market development and economic growth

Enisan and Olufisayo (2009) investigated the long-run and causal relationship between stock market development and economic growth in sub-Saharan Africa. They use an econometric method of autoregressive distributed lag (ARDL) bound test to analyze the long-run relationship. The result from VECM Granger causality shows that in Nigeria, there is a weak evidence of growth-led finance where market size is a proxy for stock market development.

Okey O. Ovat (2012) has investigated the role of the Nigerian stock market development on economic growth. His analysis used econometric technique of unit root test, cointegration test, and Granger causality test. The result suggests the dominance of the stock market liquidity over market size. The Granger causality test shows that there is two-way causation between stock market and economic growth. However, the market size has little or no effect

on economic growth. This is similar to the study of Ogunmuyiwa, M. S. (2010) which shows that stock market liquidity caused economic growth.

The empirical study of Ogbo & Oladipo (2012) examined stock market and economic growth nexus in Nigerian context. The study specifically examines the relationship between stock market development and economic growth in Nigeria. They employ econometric techniques of error correction model (ECM) and Granger causality test approach. They use Variable such as gross domestic product, market capitalization, value of the total transaction, new issues and bank total. The result shows that there is unidirectional causality between the stock market and economic growth which runs from economic growth to stock market. . This contradicts the work of Osuala et al, (2013) who show that there is negative relationship between the two.

The empirical work of Ozurumba & Chigbu (2013) has three main objectives. First, investigate the impact of capital market on economic growth. Second, determine the direction of causality between the two variables and lastly determine the transmission mechanism between the two variables in Nigeria. The study uses twenty-four years annual time series data. Using Granger causality test and Johansen co-integration test the finding shows that:

1. All-share index has a significant impact on real gross domestic product.
2. The number of deals has significant positive impact on real gross domestic product in Nigeria.
3. Interest rate and the rate of inflation rate have negative but insignificant impact on economic development
4. wise Granger causality test shows that there is a unidirectional causality running from economic development to capital market in Nigeria
5. Capital market affects economic development through all share index, value of shares traded and number of deals.

The authors recommend for policy that will deepen capital market in order to achieve economic growth. The policy could be through strengthening of supervisory and regulatory bodies in the financial system

Bashorun & Bakare-Aremu (2013) examined the link between the development of capital market and economic growth in Nigeria. The authors use and data from CBN over a period of 30 years (1981-2011). The capital market variables are all-share index, market capitalization and numbers of deals. The authors employ vector autoregressive model and Granger causality technique. The result shows that All-shares index, number of deals and market capitalization have individual positive and significant. The pairwise Granger causality test indicates that there is a unidirectional causality running from the capital market for economic development and feedback causality between market capitalization and economic growth thus, the findings support the endogenous growth theory

Summary

The above empirical studies can be categorized into two. Most of the studies observed the short-run and long-run relationship between stock market development and economic growth while other observed the causal link running from the stock market development to economic growth or the other way round. In both the common measure of the stock market development are market capitalization, market capitalization ratio, value of the total transaction, rate of turnover, number of listed securities and all-share index. The other variables that indirectly influence the development of equity market are also used. These variables are foreign direct investment, rate of inflation, interest rate, money supply trade

openness and government expenditure. The dependent variables used are gross domestic product, real GDP, per capita income and real per capita income. Most of the study used market capitalization as a proxy for the size of the market while rate of turnover and value of transaction ratio as a proxy for the stock market liquidity. This choice is in line with Levine (1991) model. The model employed is an endogenous growth theory which believes that there is a positive relationship between financial developments and economic growth. However, many of the empirical studies adopted the econometric method of ordinary least square method. For example, the studies of Osinubi (2002), Oke and Makuolu (2005), Olofin and Afangideh (2008), Bernard and Austin (2012), Solomon (2012), and Oke (2013) used OLS method. Oluwatosin et al: (2013), Ejededawe (2014). Ezeoha et al (2009), Uzoma & Chika (2012), Yadirichuk & Chigbu (2014) and Aye (2013) used Vector autoregression model. Most of the empirical studies show that the market capitalization ratio (that is the proxy of market size) showed a negative relationship with the level of economic growth.

Few of the study observed the causality between stock market and economic growth using the Granger causality testing approach developed by Engle and Granger. For instance Enisan and Olufisayo (2009) indicated evidence of growth-led finance. Osuala et al (2013) observed unidirectional causality test from the total number of deals ratio to GDP. Adefeso, et al (2013) finds unidirectional. Kolapo and Adaramola (2012) indicated bi-directional causality between economic growth and value of the total transaction and vice versa. Also, a unidirectional causality runs from market capitalization to GDP.

Conclusion and Recommendations

Chizea (2012) criticizes the use of real gross domestic product as a proxy for economic growth (dependent variable) because it does not fully reflect the rate or level of actual economic growth. This is because there is an instance where economies in recessions indicate a rising real GDP and computation of the GDP growth rate showed a declining trend. Also, the real GDP does not consider the rate of population of a country. Therefore, real per capital income is suggested for further study. The use Econometric method of ordinary least square has also been criticized by many authors. The major limitation of this approach is that it does not remove unit root in non-stationary financial data. This may lead to unbiased or spurious result. As Buke and Term (2010) put it *“the assumptions required for ODLS are stringent. If any of this assumption are not met the ODLS estimation procedure broke down, and estimator no longer enjoys all of its properties”* Only one of the reviewed works uses ARDL.

However, in an unstable economy like Nigeria, it is important to consider structural changes but surprisingly almost all of the works did not consider it in their analysis. None of the work uses structural break analysis. For further study, there is the need to identify structural breaks and control them through using dummies. This is necessary in order to consider variation in financial data due to technological change, political instability, globalization and strong policy adjustment or reforms through the econometric analysis. More and more studies are also needed to observe the direction of causality between the stock market variables and economic growth in Nigeria.

All the empirical works that studied the causal relationship use Granger causality testing approach. In case of some empirical works that found no causal relationship between the two variable in Nigeria, the augmented Granger causality test or Toda and Yomamoto (1995) is supposed to also be used. This suggestion is in line with the empirical work of Ishioro (2013) who proposed that *“the efficiency of the Granger causality test depends on the assumption that the variables are either stationary or non-stationary (in which case they must have the*

same order of integration). Toda and Phillips (1993) observed that any causal inference in Granger causality result is questionable where there are stochastic trends, and the F-test is not valid unless the variables in level are co-integrated. These weaknesses associated with the Granger causality test can be overcome by adopting the Toda and Yamamoto (1995) test.”

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