

CAPITAL MARKET INSTRUMENTS AND ECONOMIC GROWTH OF NIGERIA: A CAUSAL ANALYSIS

ALICE CHINWE OBASIKENE, Ph.D

Department of Banking and Finance

Enugu State University of Science and Technology (ESUT)

ABSTRACT

This study empirically examined the causal relationship between capital market indices and economic growth of Nigeria for the periods of 1986-2016. Annual time series were obtained from the Central Bank of Nigeria (CBN) statistical bulletin, 2016 edition. Inflation rate was used as the moderating variable. The study adopted ex-post facto research design. Result provided evidence that there is no directional relationship between capital market instruments and economic growth of Nigeria. Hence, it was recommended among others that there is need to restore confidence to the market by regulatory authorities through ensuring transparency and fair trading transaction and dealings in the stock exchange which in turn will help to improve economic growth in Nigeria; also that the private sector should be encouraged to invest in capital market since it triggers the growth of Nigerian economy.

KEYWORDS: *Capital Market, Economic Growth, Market capitalization, Listed Equities*

INTRODUCTION

The capital market is essentially a market for long term securities that is stock, debenture and bonds lasting for usually longer than three years. It is the cornerstone of every financial system which provides the funds needed for financing not only business and other economic institutions, but also the programme of government as whole. According to Ewah, Esang and Basse (2009), capital market provides the opportunities for the purchase and sale of existing securities among investors thereby encouraging the populace to invest in securities fostering economic growth. It offers access to a variety of financial instruments that enable economic agents to pool, price and exchange.

The capital market is one of the components of financial market and a prime tool that drives any economy on its path to growth and development. It also promotes efficiency in capital formation and allocation. Accordingly to Soyode (2011), the capital market facilitate the issuance and secondary trading of long-term financial instrument and enables government and industries to raise long- term capital for financing new projects, and expanding and modernizing industrial/commercial concerns.

Generally, the capital (stock) market is expected to accelerate economic growth, by providing a boost to domestic savings and increasing the quantity and the quality of investment, and also since they enhance the financing of productive activity and hence, national output and economic growth but unfortunately some findings did not in agreement with these.

Capital market does not only serve as a source of finance for the government and industries, but provide a wide range of socio-economic benefits to any country. By mobilizing funds for channeling into productive investments, the market brings together those who have and those who need funds at usually competitive prices and conditions acceptable to both parties, thereby ensuring efficient resource allocation while promoting economic growth. The impact of capital market on economic growth of Nigeria has often generated strong controversy among scholars based on their study of developed and emerging markets. While some are in support of a positive impact, others support negative impact hence, the debate is ongoing. Hence, this work examined the impact of capital market on economic growth of Nigeria.

2.0 REVIEW OF RELATED LITERATURE

2.1 Capital Market

According to Al-Faki (2006), the capital market is a network of specialized financial institutions, series of mechanism, processes and infrastructure that, in various ways facilitate the bringing together of suppliers and users of medium to long term capital for investment in economic developmental project. It is a market for dealing (that is lending and borrowing) in long term loanable funds (Ekezie, 2002).

Capital market is a highly specialized and organized financial market; an essential agent of economic growth and development (Okoye and Nwisienyi, 2013). It is divided into two segments: the non-securities segment and the securities segment and has been identified as an institution that contributes to the socio-economic growth and development of emerging and developed economies. 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 (Alile, 1984).

Shallu (2014) describes the capital market as a market where borrowing and lending of long

term funds takes place involving both debt and equity like shares, debentures, bonds etc. The researcher pointed that capital market plays a very important role in promoting economic growth through the mobilization of long-term savings and the savings get invested in the economy for productive purpose. Yadirichukwu and Chigbu (2014) stated that the capital market contributes to economic growth through the specific services it performs either directly or indirectly, and notable among these functions are: mobilization of savings, creation of liquidity, risk diversification, improved dissemination and acquisition of information, and enhanced incentive for corporate control. Hence, the government should implement policies that will make the market more efficient and re-position it for growth within the Nigerian economy.

2.2 Market Capitalization

Market Capitalization is a measure that equals the value of listed shares divided by GDP. The assumption behind this measure is that overall market size is positively correlated with the ability to mobilize capital and diversify risk on an economy-wide basis hence adopting Demircuc-Kunt (2001), the researcher proxied market capitalization as;-

$$\text{MCAP} = \text{Market Capitalization/GDP} \text{-----} (1)$$

Where,

MCAP = Market Capitalization

GDP = Gross Domestic Product

It is the total value of all equity securities listed on the stock exchange. It is a product of the current quoted price of shares and the number of shares outstanding. The term is also used as performance indicator of the capital market. It can also be used as proxy for the stock market size (Choong, Yusop, Siong, & Venus, 2005; Mohtadi & Agarwal, 2001).

2.3 Economic Growth

Economic growth is defined in terms of increase in a nation's output of goods and services as measured by the Gross Domestic Product (CBN, 1995). Kuznets (1971) defined a country's economic growth as a "long-term rise in capacity of supply increasing diverse economic goods to its population, this growing capacity, based on advancing technology and the institutional and ideological adjustments that it demands". It therefore encompasses growth, structural and institutional changes and the essential elements that make up life such as

education, health, nutrition, environment (i.e. human and development indices).

Economic growth is primarily driven by improvement in productivity, which involves producing more goods and services with the same inputs of labour, capital, energy and materials. It is one of the major objectives of macroeconomic policy and a crucial means of uplifting the standard of living of the people. It is also a means of achieving economic development.

Economic growth can be referred to as increase in the capacity of an economy to produce goods and services, compared from one period of time to another. Or the increase of per capita gross domestic product (GDP) or other measures of aggregate income, typically reported as the annual rate of change in the real GDP. It is a process by which a nation's wealth increases over time. It is conventionally measured as the percent rate of increase in real gross domestic product, or real GDP.

2.4 Empirical Review

Odunukwe (2016) examined the impact of capital market on economic growth in Nigeria for the period of 1980-2014. The study employed Granger causality Error Correction Model (ECM) and Ordinary Least Squares (OLS) regression techniques. The result revealed a significant positive impact of capital market on economic growth of Nigeria.

Adeoye (2015) analyzed the impact of the Nigerian capital market on the Nigerian economy for the period of twenty years (1992-2011). Using the ordinary least squares (OLS) multiple regression analyses, the researcher discovered that Capital Market has a non-significant impact on the Economy within the period under review.

Atoyebi, Ishola, Kadiri, Adekunjo and Ogundeji (2013) analyzed the impact of capital market on economic growth in Nigeria for the period of 1981 to 2010. The study used Ordinary Least Squares (OLS) and Vector autoregressive techniques. The findings revealed a significant positive relationship between the real gross domestic product and market share index as well as market capitalization in Nigeria.

Emeh and Chigbu (2014) examined the impact of capital market on economic growth in Nigeria using a time series data covering 1985 -2012. The study utilizes regression analysis incorporating multivariate co-integration and error correction model and found out that there exists a negative and significant impact of capital market on economic growth.

Ibrahim, Presley and Scholastica (2014) investigated the impact of capital market activities on economic growth in Nigeria using vector autoregressive (VAR) methodology. The investigation revealed that increase in capital market activities contributed significantly to economic growth. Also, the findings show that there is a long-run relationship between economic growth and capital market activities.

Odetayo and Sajuyigbe (2012) analyzed the impact of Nigerian capital market on economic growth and development of Nigeria from 1990-2011. The authors adopted the Ordinary Least Square (OLS) regression procedures and found out that capital market indices have significant impact on the economic growth and development of Nigeria.

Artor and Arber (2011) examined the effects of capital markets development on economic growth of Western Balkan countries. The study employed ordinary least squares regression and correlation analysis and discovered a positive relationship between capital market and economic development in the Western Balkan countries.

Ewah, Esang and Basse (2009) analyzed the impact of capital market efficiency on economic growth in Nigeria, using time series data on market capitalization, money supply, interest rate, total market transaction and government development stock that ranges between 1961 to 2004. The study adopted ordinary least squares multiple regression techniques. The result of the study shows that capital market in Nigeria has the potentials of growth inducing, but it has not contributed meaningfully to the economic growth of Nigeria. This is as a result of low market capitalization, low absorptive capitalization, illiquidity, misappropriation of funds among others.

Kolapo and Adaramola (2012) examined the impact of the Nigerian capital market on economic growth from 1990-2010. They employed Ordinary Least Squares (OLS) regression analysis procedures capturing co integration and granger causality. Their results revealed that activities in the capital market impact positively on the economy.

Kareem, Sanni, Raheem and Bakare (2013) empirically analyzed the impact of the Nigerian capital market on the Nigerian economy using a sample period of 1981-2008. The study employed Ordinary Least Squares multiple regression and correlation analysis and found a significant positive relationship between market capitalization and economic growth in Nigeria.

Briggs (2015) empirically examined the impact of the capital market on the Nigerian economy from 1981-2011. The study used Gross Domestic Product (GDP) as proxy for economic growth while the capital market variables considered were; Market capitalization (MCAP), Total New issues (TNI), Value of Transactions (VLT), and Total Listed Equities and Government Stocks (LEGS). Johansen co-integration and Granger causality tests were applied. The result showed that there is a long run relationship between capital market and the growth of the Nigerian economy. The result also showed the clear relative positive impact the capital market plays on the economic growth and invariably on the economy.

Following the need to deregulate financial markets, Kimeli (2017) studied IFRS adoption and capital markets. Through a review of relevant literature, the study investigated the various theories related to financial disclosure, and critically analyzed various empirical studies on the IFRS adoption effects on the functioning and operations of capital markets. Regression analysis techniques including the robust tests such as linearity; multicollinearity; normality and heteroscedasticity were not performed casting doubts on the reliability of the models used. The findings of the review indicate tremendous benefits arising from IFRS adoption to capital markets, this include, enhance liquidity of markets, higher following by analysts, minimized information asymmetry, lower costs of capital, increase of cross listings by firms, improved foreign holdings and higher turnover of capital markets.

3.0 METHODOLOGY

The research design is *ex-post facto* research design. The source of data is secondary since annual time series data extracted from CBN statistical bulletin for various years, National Bureau of statistics annual reports and internet were used.

Model framework adopted was Granger (1969) model for causal or directional relationship between two variables. It is specified thus:

$$X_t = \sum_{i=1}^n \alpha_i Y_{t-i} + \sum_{j=1}^n \beta_j X_{t-j} + \mu_{1t} \quad (3.1)$$

$$Y_t = \sum_{i=1}^n \lambda_i Y_{t-i} + \sum_{j=1}^m \delta_j X_{t-j} + \mu_{2t} \quad (3.2)$$

Where;

X_t = value of X at time t (dependent variable in eqn(3.1))

α_i = coefficient of lagged Y at time t-i (independent variable in eqn(3.1))

β_j = coefficient of lagged X at time t-i (independent variable in eqn(3.2))

μ_{1t} and μ_{2t} are uncorrelated random disturbances

4.0 DATA PRESENTATION AND ANALYSIS OF RESULTS

Table 1: Annualized time series data

YEARS	GDP (₦'B)	MCAP (₦'B)	TLE (₦'B)	INFR (%)
1986	134.60	6.8	3.7	6.25
1987	193.13	8.2	4.0	11.77
1988	263.29	10.0	5.1	34.24
1989	382.26	12.8	8.0	49.02
1990	472.65	16.3	12.1	7.80
1991	545.67	23.1	18.4	12.20
1992	875.34	31.2	26.2	44.57
1993	1,089.68	47.5	41.8	57.14
1994	1,399.70	66.3	61.0	57.42
1995	2,907.36	180.4	175.1	72.73
1996	4,032.30	285.8	279.8	29.29
1997	4,189.25	281.9	276.3	10.67
1998	3,989.45	262.6	256.8	7.86
1999	4,679.21	300.0	294.5	6.62
2000	6,713.57	472.3	466.1	6.94
2001	6,895.20	662.5	648.4	18.87
2002	7,795.76	764.9	748.7	12.88
2003	9,913.52	1,359.3	1,325.7	14.03
2004	11,411.07	2,112.5	1,926.5	15.00
2005	14,610.88	2,900.1	2,523.5	17.86
2006	18,564.59	5,120.9	4,227.1	8.23
2007	20,657.32	13,181.7	10,180.3	5.42
2008	24,296.33	9,563.0	6,957.5	11.58
2009	24,794.24	7,030.8	4,989.4	12.54
2010	54,612.26	9,918.2	7,913.8	13.72
2011	62,980.40	10,275.3	6,532.6	10.80
2012	71,713.94	14,800.9	8,974.4	12.20
2013	80,092.56	19,077.4	13,226.0	8.50
2014	89,043.62	16,875.1	11,477.7	8.00
2015	94,144.96	17,003.4	9,850.6	9.00
2016	101,489.49	16,185.7	9,246.9	15.7

Source: CBN statistical Bulletin (2016)

Where;

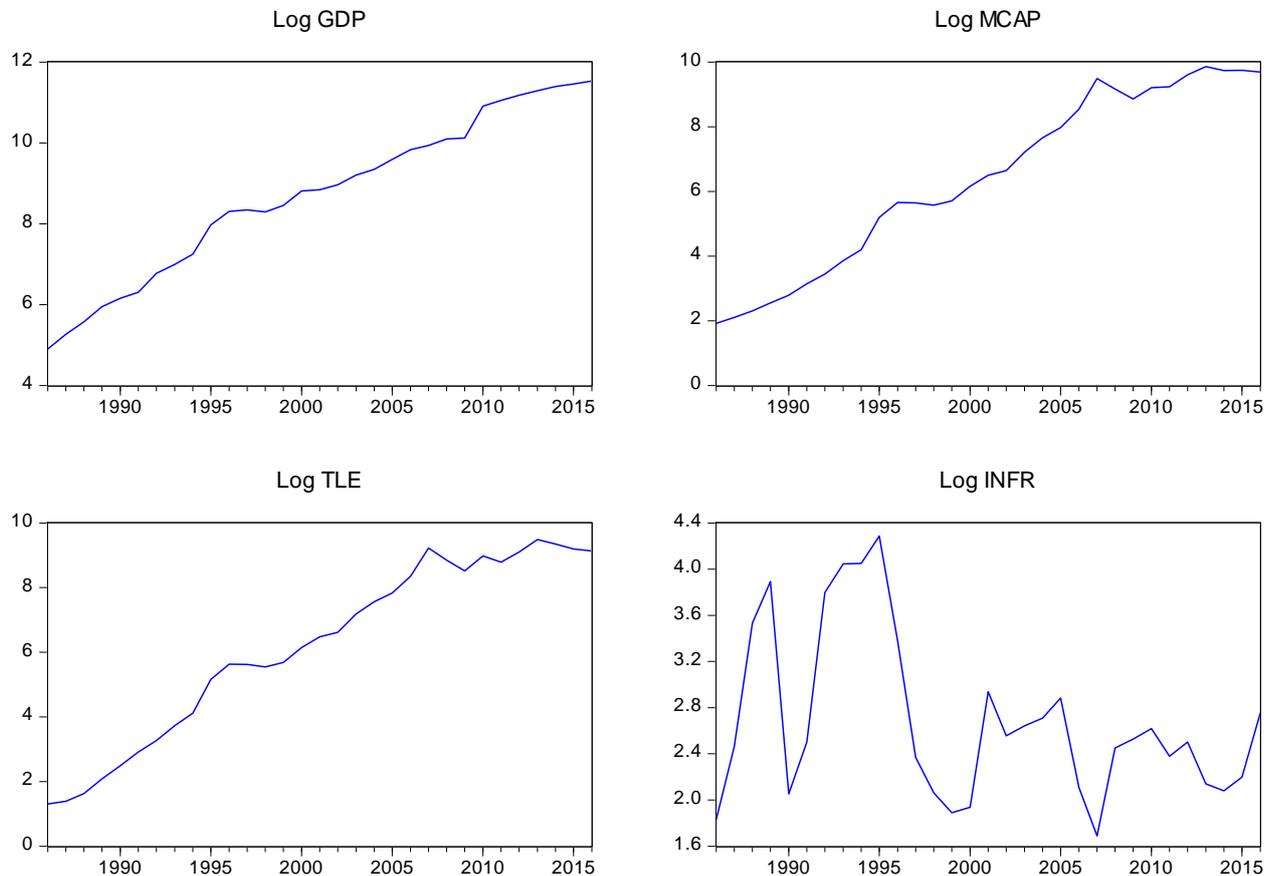
GDP = Gross Domestic product at current basic prices in Billions of Naira,

MCAP = Market capitalization (MCAP) in Billions of Naira,,

TLE = Total Listed Equities in Billions of Naira,

INFR = Inflation rate in percentage.

Fig. 1 Trend Analysis of the variables under investigation



Source: Author's Eviews result

The graphical representation of the variables shows that GDP, MCAP, and TLE exhibit a smooth steady rise within the period of review while inflation exhibit a random pattern movement over the period. This indicates a relationship between Gross Domestic Product (GDP), market capitalization (MCAP), and total listed equities (TLE) in Nigeria.

Table 2 Description of variables of study

Variables	Mean	Std. Dev.	Skewness	Kurtosis	JB stat.	Prob(JB)
GDP	23383.34	32303.39	1.35	3.27	9.48	0.0087
MCAP	4801.19	6494.68	1.02	2.45	5.75	0.0566
TLE	3312.19	4254.98	0.95	2.40	5.15	0.0763
INFR	19.64	17.83	1.66	4.57	17.58	0.0002

SOURCE: Researcher's extract from E-views 9.0 output

The descriptive statistics result in table 4.2.1 shows that GDP stood at average value of ₦23383.34 billion with associated standard deviation of ₦32303.39 billion. The mean of MCAP, TLE, and INFR stood at ₦4801.19 billion, ₦3312.19 billion, and 19.64% respectively with associated standard deviations of ₦6494.68 billion, ₦4254.98 billion, and 17.83% respectively. The Jarque-Bera statistics which is a goodness of fit test and a joint test of skewness and kurtosis revealed that GDP and INFR do not follow normal distribution and has excess kurtosis of 0.27 and 0.57 respectively. The result also shows that all the variables are skewed to the right.

Table 3 ADF unit root test Result

Variable	ADF-Stat	Critical Values @5%	p-value	Order of Integration	Inference
LogGDP	-5.32	-3.57**	0.0009	I(1)	Stationary
LogMCAP	-5.32	-3.60**	0.0011	I(1)	Stationary
LogTLE	-4.50	-3.60**	0.0072	I(1)	Stationary
LogINFR	-2.60	-2.66**	0.0116	I(1)	Stationary

** Indicates stationary at 5% level of significance

Source: Author's Extract from E-views 9.0 Result

The stationarity test result in table 4.2.2 shows that the ADF-statistics were more negative than the critical values at first differencing, hence, the variables are said to be integrated of order one (i.e., I(1)).

Table 4 Pairwise Granger Causality Tests

Sample: 1986 2016

Lags: 2

Null Hypothesis:	Obs	F-Statistic	Prob.
LogMCAP does not Granger Cause LogGDP	29	0.48112	0.6239
LogGDP does not Granger Cause LogMCAP		0.39566	0.6775
LogTLE does not Granger Cause LogGDP	29	0.42128	0.6610
LogGDP does not Granger Cause LogTLE		0.07334	0.9295
LogINFR does not Granger Cause LogGDP	29	1.32789	0.2838
LogGDP does not Granger Cause LogINFR		2.67788	0.0892
LogTLE does not Granger Cause LogMCAP	29	1.03399	0.3709
LogMCAP does not Granger Cause LogTLE		0.73738	0.4889

LogINFR does not Granger Cause LogMCAP	29	0.75924	0.4789
LogMCAP does not Granger Cause LogINFR		2.97146	0.0703
<hr/>			
LogINFR does not Granger Cause LogTLE	29	1.03958	0.3690
LogTLE does not Granger Cause LogINFR		2.79266	0.0812

Source: Author's E-views 9.0 result

The pairwise Granger causality test result shows that there is no causal relationship between capital market instruments and economic growth of Nigeria, for which course, the researcher upholds the null hypothesis.

5.0 CONCLUSION AND RECOMMENDATIONS

Capital market has remained one of the mainstreams in the development of the economy. This study empirically examined the causal relationship between capital market and economic growth in Nigeria. The findings revealed that there is no directional relationship. Hence, the following recommendations were made:

1. There is the need to restore confidence to the market by regulatory authorities through ensuring transparency and fair trading transaction and dealings in the stock exchange which in turn will help to improve economic growth in Nigeria.
2. Given the present political dispensation, all the tiers of government should be encouraged to fund their realistic developmental programme through the capital market as this will serve a long way to freeing the resources that may be used in other aspects of the economy.
3. The private sector should be encouraged to invest in capital market. This can be done through educating and enlightening the public, using knowledgeable people and experts or professionals that are competent in stock market dealings.
4. The illiquidity status of the capital market should be improved to make it more viable for investors to invest, and such overtures can contribute to economic growth. This can be achieved through complete reversal of the ownership structure.
5. The funds raised by government in the form of government securities in the capital market should be put into productive sectors of the economy that will necessitate to growth in all facets of the economy.

REFERENCES

- Adeoye, A. A. (2015). Impact of the Nigerian capital market on the Nigerian economy. *European Journal of Accounting Auditing and Finance Research* 3(2), 88-96.
- Al-Faki, M. (2006). *The Nigerian capital market and socioeconomic development*. A paper presented at the 4th distinguished faculty of social science, public lectures. University of Benin, 9-16.
- Alile, H. (1997). Government must divest. *The business concord of Nigeria*. 2nd December, 8.
- Alile, H. I. (1984). The Nigerian Stock Exchange: Historical Perspectives, Operations and Contributions to Economic Development. *Central Bank of Nigerian Bullion*, 2, 65-69.
- Artor, R. N. & Arber, H. H. (2011). Effects of capital markets development on economic growth of Western Balkan countries. *European Journal of Economics, Finance and Administrative Sciences*, 43, 88-98.
- Atoyebi, K. O., Ishola, S. A., Kadiri, K. I., Adekunjo, F. O. & Ogundeji, M. O. (2013). Capital market and economic growth in Nigeria: An empirical analysis. *IOSR Journal of Humanities and Social Science (IOSR-JHSS)* 6(6), 60-68.
- Briggs, A. P. (2015). Capital market and economic growth of Nigeria. *Research Journal of Finance and Accounting*, 6(9), 82-93.
- CBN, (1995). *Central Bank of Nigeria Statistical Bulletin*, Abuja.
- Choong, C. K., Yusop, Z., Siong, H.L., & Venus, L. K. S. (2005). *Financial Development and Economic Growth in Malaysia: The Stock Market Perspective*.
- Demirgüç-Kunt, A. (2001). *Financial Structure and Economic Growth*. Cambridge: MIT Press.
- Ekezie, E. S. (2002). *The elements of Banking: Money, Financial Institutes and Markets*. Nigeria: Onitsha, Africana publisher limited.
- Emeh, Y. & Chigbu, E. E. (2014). The impact of capital market on economic growth: The Nigerian perspective. *International Journal of Development and Sustainability* 3(4), 838-864.
- Ewah, S. O. E, Esang, A.E. & Bassej, J. U. (2009). Appraisal of capital market efficiency on economic growth in Nigeria. *International Journal of Business and Management*, 4(12), 219 – 225.
- Ibrahim, B. S., Presley, K. O. Scholastica, A. O (2014). Capital market activities and economic growth in Nigeria: Further evidence from VAR methodology. *International Journal of Business and Management Review*, 2, 32 – 47.
- Kareem, R., Sanni, S., Raheem, K. & Bakare, H. (2013). The impact of capital market on the Nigerian economy. *Journal of Economics and Sustainable Development* 4(8), 99-109.
- Kimeli, E. K. (2017). IFRS adoption and capital markets. *Journal of Finance and Accounting*, 5(1), 19-30.
- Kolapo, F. T. & Adaramola, A. O. (2012). The impact of the Nigerian capital market on economic growth from 1990-2010. *International Journal of Developing Societies*, 1(1), 11–19.
- Mohtadi, H., & Agarwal, S. (2001). Stock market development and economic growth: Evidence from developing countries. *Journal of Finance*, 11-43.
- Odetayo, T. A. & Sajuyigbe, A. S. (2012). Impact of Nigerian capital market on economic growth and development. *International Journal of Arts and Commerce* 1(5), 1-8.
-

- Okoye, V. O. & Nwisienyi, K. J. (2013). The capital market contributions towards economic growth and development: The Nigerian experience. *Global Advanced Research Journal of Management and Business Studies*, 2(2), 120-125.
- Onudukwe, R. C. (2016). Impact of capital market on economic growth in Nigeria. Retrieved on 15th October, 2017 from <http://www.uniprojectsearch.com/impact-capital-market-economic-growth-nigeria-1980-2014/>.
- Shallu (2014). Indian capital market and impact of SEBI. *Tactful Management Research Journal*, 2(4), 1-10.
- Soyode, A. (2011). The role of capital market in economic development. *Security Market Journal in Nigeria*, 31-47.
- Yadirichukwu, E. & Chigbu, E. E. (2014). The impact of capital market on economic growth: the Nigerian Perspective. *International Journal of Development and Sustainability*, 3(4), 838-864.