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MAXIMIZING THE PROSPECTS OF NIGERIA STOCK EXCHANGE AND CAPITAL FORMATION OF THE EMERGING ECONOMICS OF NIGERIA

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Abstract: The paper examined the effect of stock exchange on capital formation in Nigeria. Data were collected from Security and Exchange Commission (SEC) and CBN statistical bulletin 2020. Expost facto design was employed for the study. Ordinary least square regression was used to analyze the data. The findings showed that all the capital market variables have no significant effect on gross fixed capital formation both in the short and long run in Nigeria. Based on the findings, we therefore recommend that government should make policy that will increase market capitalization in order to increase the gross fixed capital in the economy, government should also make policy that will boost the all share index so as to contribute more to gross fixed capital formation in Nigeria etc.

Key words: Stock Exchange, Market Capitalization, All Share Index, Capital Formation etc

1. Introduction

Stock exchange is a secondary market which handles already traded securities (Ihenetu 2021). It is an institutionalized stock market that provides link through which stocks bought in the primary market can be resold in the secondary market (Nzotta 2004). Apart from providing link, stock exchange has played an important role in financial liberation globally (Ajao 2011). In the pro-liberation circle, stock exchange plays an important role in financial development and economic growth of the emerging economics.

The Nigeria stock exchange commenced operation on 15th September, 1960 as an offshoot of Lagos stock exchange which was incorporated as a private limited liability company, limited by guarantee under the provision of Lagos stock exchange act of 1960. On 5th June 1961, the exchange opened normal business activities with nineteen (19) listed securities comprises of three (3) equities, six (6) federal government bonds and ten (10) industrial loans. This Lagos stock exchange was converted to Nigeria stock exchange on 2nd December 1977 through the indigenization degree of 1977 and having branches established in the whole nation (Osaze 2007).

There are many variables used in measuring the growth and the performance of Nigeria stock exchange. Among which are market capitalization, all share index, value of traded securities, volume of traded securities, new issued securities, value of debt raised in the market etc. the study shall limit itself with only three variables such as market capitalization , all share index and new issued securities.

Nigeria stock exchange constitutes an important institution for massive capital formation geared towards economic development. Capital formation is the difference between the total values of investment of two succeeding time horizon (Ngerebo and Torbira 2014). Capital formation is basically refers to the net additions to the physical capital

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stock in an accounting period, or to the value of the amount of increase of the capital stock. It refers to as saving drives, setting up financial institutions fiscal measures, development of the capital markets, privatization of financial institutions etc (Ajao 2011).

Capital formation is affected by stock exchange positively when the stock exchange variables increase. Capital formation is measured in terms of gross or net fixed capital. For the purpose of precision in this work, gross fixed capital formation (GFCF) is used for the work and as the variable for the measurement. Gross fixed capital formation is the value of acquisition of new fixed assets or improvement in existing fixed assets by the business sector, government and household which add value to the economy through investment (Ngerebo and Torbira 2014). Gross fixed capital formation according to World Bank (2013) is made up of land improvement, plant, machinery and equipment purchases, construction of roads, railways, schools offices hospitals, private residential dwellings and commercial and industrial buildings.

This work therefore elucidates on how Nigeria stock exchange has contributed to capital formation of the emerging economics of Nigeria.

The Nigeria stock exchange suffers some inadequacies in a bid to contribute to the growth and capital formation of the economy such as few securities, poor liquidity, inefficiency in service rendering, poor infrastructure in the market, inactive bond market, high costs of transactions, lack of refined investment and instruments etc.

A lot of works have been done on the effect of capital market on economic growth and development in Nigeria. Little effort has also been made on stock market and capital formation and many of the work done have positive and significant relationship. Most of the work done used GDP as the measure of economic growth whereas those that used gross fixed capital formation employed other explanatory variables other than stock exchange variables ie inflation rate, interest rate etc. Moreover, no recent work has been done on the subject areas ie 2020 years so as capture the current realities to the best of my knowledge. This therefore constitutes the central problem of the study. The objective of this research is to examine the effect of Nigeria stock exchange on capital formation in Nigeria. The rest of the paper shall consider literature review, methodology, presentation and analysis and finally conclusion and recommendations

2. Literature Review

a) Conceptual Frame work

The concepts relevant to the study are:

i) Nigeria Stock Exchange Market

Nigeria stock exchange market is an institutionalized stock market that provides link through which stocks bought in the primary market can be resold in the secondary market (Nzotta 2004). The market has grown tremendously since its inception in 1961 (though it is still emerging when compared to major market in the developed economies). This growth could be partially attributed to different proactive measures of government to stimulate capital formation and development through its Enterprises Promotion Acts of 1972 and 1977. These Acts was introduce d by the Federal Government to indigenize the economy which resulted in the growth of the number of listed securities and shareholders in the Nigerian Stock Market.

The market started on September 15, 1960 as Lagos Stock Exchange which was incorporated as a private limited liability company, guarantee under the provision of Lagos Stock Exchange Act of 1960. On June 5, 1961, the Lagos Stock Exchange opened business activities with 19 listed securities made up of 3 equities, 6 Federal Government Bonds and 10 industrial loans. The Lagos Stock Exchange was transformed into Nigerian Stock Exchange on 2nd December 1977 by the Indigenization Decree of 1977 according to government desires to have a National Stock Exchange with branches established nationwide (Osaze, 2007).

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ii) Market Capitalization

Market capitalization is the total value of all equity securities listed on a stock exchange. It is a function of the prevailing market price of quoted equities and the size of their issue and paid-up capital. Market capitalization is the most important measure for assessing the size of a stock market and the barometer for measuring its growth and development. The value of market capitalization at anytime is also a function of investors' perception of the worth of securities on offer, their disposable discretionary income and the willingness of fund users to see the market as a viable source of raising long-term capital. It is the market value of all the publicly traded securities in the market.

iii) All Share Index

The All share index or Stock market index is an average of the prices of equity and the number of securities in a Stock market at a given period of time. It is an important measure of Stock market performance. The other performance indicators are the Volume and Value of transactions. While the volume of transactions refers to the quantity of securities traded on a market per time. The value of transaction is the quantity of the securities multiplied by the prevailing market prices of each security per day on which business was transacted.

It is a compilation depicting the average current market value of common stock as at a particular date relative to their average market value at an earlier base period. It is computed by the stock process and determines the aggregate market capitalization for all securities listed on the exchange. The model is given as current market value divided by base market value (Nzotta 2004).

iv) New Issue Securities

The total amount of new securities raised in a capital market for the first time. It is a major indicator of how popular the market is as a source of growing funds for investment in fixed assets. It actually depends on the degree of investors' confidence and the comparative cost of raising similar funds from alternative source in the financial system (Osaze, 2007). New issue securities contribute to the stock of capital in an economy and hence to economic development.

Money is raised from the initial public offer of any corporate organization or federal government bonds which are coming to the market for the first time. These are primary market assets. This market helps in raising fresh capital for restoration, expansion, investment etc. The securities traded in this market are equity, federal government bonds, corporate bonds etc.

v) Capital formation

Capital formation basically refers to the net additions to the (physical) capital stock in an accounting period, or to the value of the amount of increase of the capital stock. Presently, it is also refers to as saving drives, setting up financial institutions fiscal measures, development of capital markets, privatization of financial institutions etc. In this broad sense, it refers to any method in mobilizing or utilizing capital resources for investment purpose. This variable is related to stock market development because it is an investment in fixed assets (with long gestation period) which in part is financed with funds. It is the difference between the total value of investment between two succeeding time horizon

This additional increase will drive both direct and portfolio investment in fixed productive asset which will in turn translate into high productive capacity (capital formation) and increase output level of goods and services in the economy.

vi) Gross Fixed Capital Formation

World Bank (2013) posits that gross fixed capital formation (formerly gross domestic fixed investment) includes land improvements (fences, ditches, drains, and so on); plant, machinery, and equipment purchases; and the construction of roads, railways, and the like, including schools, offices, hospitals, private residential dwellings, and commercial and industrial buildings. According to the

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1993 SNA, net acquisitions of valuables are also considered capital formation. It is the total investment in fixed assets financed by new issues of financial securities in the capital market.

b) Theoretical Framework

i) Capital Market Theory

Capital market theory was all about the theory of diversification developed by Harry Markowitz in 1952. Markowitz came up with the theory of portfolio selection which is concern with the trade-off between risk and return. He said a rational investor should diversify his assets in order to avoid being faced with the same misfortune at the same time. He should build his portfolio in a way that while some will be negative, others will be positive. According to him, it is not enough to have different assets in different industries without knowing the risk, the return and the coefficient of correlation. The whole essence of Markowitz theory is based on rationality of the investor and efficient operation of capital market. The investors in primary market which is a segment of the security market have to be rational in raising fresh capital either for business expansion or infrastructural development as in the case of government.

ii) Theory of Financial Intermediation

Traditional theories of financial intermediation are based on transaction costs and asymmetric information. They are designed to account for institutions which take deposits or issue insurance policies and channel funds to firms. However, in recent decades, there have been significant changes. Although transaction costs and asymmetric information have declined, intermediation has increased. New markets for financial futures and options are mainly markets for intermediaries rather than individuals or firms. These changes are difficult to reconcile with the traditional theories. These are specifications, functions and features relevant to the financial services industry.

3. Research Design

According to Ihenetu (2008), research design is a blue print, framework for collecting and analyzing data. The researcher employed expost facto design. The fact that the data was original from statistical bulletin and adopted for the study necessitated the choice of the design. The researcher adopted the data which were collected from CBN statistical bulletin 2020 for the study.

Purposive sampling method was adopted for the work. Twenty two (22) years (1999-2020) data were used for the work constitutes the sample size.

The researcher employed ordinary least square multiple regression for the analysis.

The model specification is given as:

GCFC = f(MC, ASI, NIS).

This functional model was trans- modified into the mathematical form by the introduction of the constant α, β and error term μ as:

$GFCF = \alpha + \beta_1 MC + \beta_2 ASI + \beta_3 NIS + \mu$

Where GFCF = Gross Fixed Capital Formation

MC = Market Capitalization

ASI = All Share Index

NIS = New Issue Securities

α = constant variable

β_1 β_2 β_3 = Coefficient of independent variables (slope)

μ = error term

4. Data Presentation and Analysis

The data used for the work is presented below:

Table1.Gross Domestic Product (GDP), Market Capitalization (MTC), All Share Index (ASI) and New Issued Funds (NIF) in billions (1999 – 2020).

Years	GFCF	MTC	ASI	NIF
1999	2,098.54	300	5266.4	11.93
2000	2,404.82	472.3	8111	18.26

European Journal of Accounting, Finance and Investment
Vol.8, No.11; November-2022;
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2001	2,473.47	662.5	10963	33.43
2002	3,078.78	764.9	12138	61.51
2003	3,846.23	1359.3	20129	152.65
2004	4,723.72	2112.5	23845	205.72
2005	5,772.64	2900.1	24086	591.01
2006	7,948.12	5120.9	33189	729.64
2007	6,997.62	13182	57990	1942.8
2008	7,535.27	9563	31451	2067.9
2009	9,177.08	7030.8	20827	1131.9
2010	2,450.72	9918.2	24771	1584.8
2011	3,053.62	10275	20731	2087.2
2012	3,778.95	14801	28079	759.96
2013	3,714.50	19077	41329	1343.6
2014	4,195.15	16875	34657	1532.1
2015	4,449.10	17003	28642	1211
2016	4,728.89	16186	26875	1484.5
2017	5,113.04	21129	38243	2053.8
2018	5,741.44	21904	31431	1586.4
2019	6,679.21	25890	26842	2746.2
2020	7,150.24	38590	40271	2811.3

Source: CBN 2020 and SEC Annual Report and Account 2020

Aprior expectation: A positive significant effect is expected between monetary policy variables such as MTC, ASI, NIF and Gross fixed capital formation (GFCF)

Table 2 Stationarity (Unit Root) Test Results

Variables	Level	1st difference	Order of Integration	Remark
GFCF	-2.194903	-5.038844	I(1)	Stationary
MTC	-1.174435	-3.317316	I(1)	Stationary
ASI	-2.873018	-4.591024	I(1)	Stationary
NIF	-2.972032	-4.962602	I(1)	Stationary

Significant at 5% level, ADF test > Critical Value, then the variable is stationary

Source: Extracts from E-Views 10 Output

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Table 2 presented the unit root stationarity test results for the employed data. Generally, the absolute values of the ADF test statistic for all the employed study variables were greater compared to all their corresponding Mackinnon's critical values at 5%. All the variables GFCF, MTC, ASI and NIF were integrated at order I(1). Since these variables are stationary at 5% level of significant, they are therefore deemed fit for utilization and subsequent estimations.

Table 3 Ordinary least Square multiple regression

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	398.3437	459.6250	0.866671	0.3982
DMTC	-0.033199	0.167481	-0.198223	0.8452
DASI	-0.006954	0.058618	-0.118633	0.9070
DNIF	-0.642617	0.718685	-0.894157	0.3837

R-squared	0.074998	Mean dependent var	240.5571
Adjusted R-squared	-0.088238	S.D. dependent var	1710.042
S.E. of regression	1783.892	Akaike info criterion	17.98063
Sum squared resid	54098630	Schwarz criterion	18.17958
Log likelihood	-184.7966	Hannan-Quinn criter.	18.02381
F-statistic	0.459446	Durbin-Watson stat	2.132280
Prob(F-statistic)	0.714205		

Source: Extracts from E-Views 10 Output

From table 3, MTC, ASI, NIF are the independent variables where as the GFCF is the dependent variable. The result of the analysis showed that MTC, ASI and NIF had no significant effect on GFCF at 5 percent level of significance during the period of the study. The r^2 0.074998 implies that variation in all the explanatory variables account for 7.5% of the variation in gross fixed capital formation. F – Statistic measures the overall significance of the model. The F-statistic is 0.459446 and the probability of F-statistic is 0.714205 is far more than 0.05 power of test. This means that Nigeria stock exchange had no significant effect on the growth of manufacturing sector in Nigeria. The coefficient of MTC, ASI and NIF -0.033199, -0.006954 and -0.642617 respectively showed that 1% increase in these variables decrease the gross fixed capital formation by N0.033199, N0.006954 and N0.642617 respectively. Durbin Watson is 2.132280 showing the absence of serial correlation.

Table 5 Johanson Co-integration Test

Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**

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None *	0.898406	86.37280	47.85613	0.0000
At most 1 *	0.771290	42.92409	29.79707	0.0009
At most 2	0.539452	14.89336	15.49471	0.0614
At most 3	0.008487	0.161938	3.841466	0.6874

Trace test indicates 2 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)

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None *	0.898406	43.44871	27.58434	0.0002
At most 1 *	0.771290	28.03073	21.13162	0.0046
At most 2 *	0.539452	14.73142	14.26460	0.0422
At most 3	0.008487	0.161938	3.841466	0.6874

Max-eigenvalue test indicates 3 cointegrating eqn(s) at the 0.05 level

Both Trace statistic and the Max-Eigen Statistic shows that there is a long run relationship between the variables under study. Since there is a long run relationship, the need to correct the error in the short run becomes necessary

Table 6 Result of Error Correction Model

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	387.7786	510.7762	0.759195	0.4595
DMTC	-0.026429	0.182838	-0.144548	0.8870
DASI	-0.003958	0.063721	-0.062112	0.9513
DNIF	-0.690097	0.779587	-0.885209	0.3900
ECM(-1)	-0.082624	0.280212	-0.294863	0.7721

R-squared	0.080330	Mean dependent var	237.2710
Adjusted R-squared	-0.164916	S.D. dependent var	1754.398
S.E. of regression	1893.544	Akaike info criterion	18.14261
Sum squared resid	53782628	Schwarz criterion	18.39154
Log likelihood	-176.4261	Hannan-Quinn criter.	18.19120
F-statistic	0.327548	Durbin-Watson stat	1.975178

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Prob(F-statistic)	0.855129

Source: Extracts from E-Views 10 Output

The result of Error Correction Model has a negative sign of -0.082624 which is the proper. It shows that it will take 8.26% to correct the disequilibrium in gross fixed capital formation (GFCF) in Nigeria.

6. Conclusion and Recommendations

The researchers therefore concluded that all the capital market variables have no significant effect on gross fixed capital formation both in the short and long run. This is against the apriori expectation.

Based on the findings of the study, the following recommendations have been made to guide the policy of government:

1. Government should make policy that will increase market capitalization in order to increase the gross fixed capital in the economy.
2. Government should also make policy that will boost the all share index so as to contribute more to gross fixed capital formation in Nigeria.
3. Government should also enact law that encourage more new securities to be listed in order to mobilize more funds and boost gross fixed capital formation in Nigeria.

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