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FINANCIAL DEEPENING AND PERFORMANCE OF THE NIGERIAN CAPITAL MARKET: EMPIRICAL EVIDENCE

¹Raymond Osi Alenoghena, ²Clement Enakali-Osoba & ³Peter Ekundayo Mesagan

¹Department of Economics, University of Lagos, Akoka, Lagos, Nigeria ²Department of Business Admin & Management, Auchi Polytechnic, Auchi, Edo State, Nigeria ³Department of Economics, University of Lagos, Akoka, Lagos, Nigeria

ABSTRACT

This study examines the impact of financial deepening on the performance of the Nigerian capital market over the period of 1981 to 2012. The method of analysis entailed an evaluation of the stochastic characteristics of each time series variable adopted in the study by testing their stationarity using the Im Pesaran Shin W-Stat Test. The multiple regression technique was employed to ascertain the different levels of impact on the subject matter. The findings were reinforced by the presence of long-term equilibrium relationship as evidenced by the cointegrating equation of the VECM. The model ascertained that financial deepening variables actually positively impacted on the performance of the Nigerian stock market. The study revealed Narrow Money Diversification (NMD; involving size of commercial banks' demand deposit) and the growth of Savings (SAVR) significantly impacted the performance of the Nigerian stock market during the period of study. Though, other measures of financial deepening represented by Income (GDP) and Financial Development (FID; involving credit to private sector) exhibited positive coefficients but were not significant in explaining the performance of the capital market. It was recommended that government and other stake holders in the economy should take measures to further improve the financial deepening of the economy to enhance the performance of the capital market and achieve overall economic performance in the country. The focus of policy targets should be specific in measures to enhance bank deposits and saving. The expansion of credit to the private sector of the economy should be managed by to enhance returns to investors in the stock market. Further monetization of the economy and improved financial deepening could be achieved by through a financial inclusion programme involving the extension of financial services to deficient locations and people in the country.

Keywords: Financial Deepening, Capital Market, Economic Growth.

1.0 INTRODUCTION

The capital market plays a prominent role in the growth and development process of countries around the world. Beside mobilization of necessary liquidity, a country's capital market generates the medium and long term capital which is crucial for economic development as evidenced by the positive relationship between long term capital and economic growth (Gurley and Shaw (1955), Goldsmith (1969) and Hicks (1969)). A well developed capital market assists in price discovery, liquidity provision, reduction in transactions costs, and risk transfer. This means that well functioning capital markets increase economic efficiency, investment and growth.

In search of ways to improve the activities of capital markets around the world, financial deepening has been identified as one of those strategies whose implementation can quicken the pace, development and contributions of the market. Financial deepening is more concerned with the process of financial intermediation. Financial markets undertake this vital role of intermediation process, by channeling funds from surplus units (savers) to deficit units (investors). When a country's financial intermediation is efficient and effective, the outcome is usually a well developed and functioning financial sector with capacity to support economic growth. But where the contrary is the case, the result is an economy beset with "financial shallowness" which is a common problem infecting the growth of development economies (Goldsmith, 1969; Ghani, 1992). Developing Countries possess financial assets and instruments that are narrow and this condition is usually akin to shallow financial depth. This condition partly explains why countries in with shallow financial depth experience low or negative per capita income.

Earlier studies of financial intermediation process in Nigeria reveal that the country's financial system is beset with some shallowness. Ndekwu (1995) is of the opinion that Nigerian economy suffered financial repression as a result of the administrative controls that were imposed on the country's monetary policy over time. Omole (1999) reveals that a strong positive relationship exists between the financial depth of the Nigerian economic system and stock market development in general. However, evidences from the same study suggest that financial deepening in Nigeria is weak given the magnitude of the country's overall economic activities. The study by Omole (1999) was conclusive that monetary policies adopted over time have not sufficiently deepened the country's financial system. Nwogwugwu (2008) opined that the depth of the country's financial services sector is responsible for the inability to positively impact on economic growth.

From the above discussion, the level of financial deepening in a country could influence the contribution of the capital market to economic progress. Going by the prominent and strategic role that capital markets play as one of the foremost critical pillars that determine the speed of a nation's growth and development, it is imperative to evaluate the relationship between financial deepening and the performance of the stock market in a developing economy like Nigeria. Some of the major securities traded on the Nigerian Stock Exchange during the period under review included, government development stocks, industrial loans/preference shares and equities. From 100.00 in 1984, the all-share value

index on the exchange rose to 57,990.22 in 2007, but declined by -64.1 per cent to 20,827.17 in 2009 due to the effect of the global and economic crisis during the period. The impact of the global financial crisis also affected the Exchange performance. In the same vein, the number of deals increased from 10,199 in 1981 to peak at 49,029 in 1992, before falling to 40,398 in 1993. It later rose significantly to 3,535,631 in 2008, and declined by -50.8 per cent to 1,739,365 in 2009. The growth in the market also manifested in the phenomenal increase in market capitalization, from N5.0 billion to N7, 030.8 billion in 2009, over ten-fold jump. The phenomenal growth notwithstanding, the market capitalization represents only 28.0 per cent of the GDP, compared with 167.1 per cent for South Africa, 50.7 per cent for Zimbabwe and 130.0 per cent for Malaysia (CBN, 2007). This shows that the potentials and prospects for further growth in the Nigerian market are bright.

Part of the reasons for the inability of the Nigerian stock market capitalization to compare favourably with the GDP is attributable to the poor liquidity position occasioned by the poor banking habits of a large segment of the Nigerian population.

Many Nigerian's for numerous reasons are unbanked and lack access to formal financial services. The result of a survey conducted by Efina Access in Nigeria in 2012 revealed that 34.9 million adults representing 39.7% of the adults in the Country did utilize the services of formal financial institutions (Efina, 2012). Only 28.6 million adults in Nigeria access and utilize formal financial services and this represents 32.5% of the adult population. In addition, the survey by Efina also revealed that 23.0 million adults save at home. This means that a huge bulk of the country's currency circulate outside the formal financial sector. This poses real problems to the economy in terms of controlling liquidity and financial deepening process. This perhaps, partly explains why a large segment of the Nigerian people has not been able to benefit from the huge gains enjoyed by investors in the Nigerian Stock Market.

The main objective of this research study is to empirically examine the impact of financial deepening on the performance of the Nigerian capital market over the period of 1981 to 2012. There would also be an attempt to make policy recommendations on the basis of our research findings in the course of this study. Therefore, our research hypothesis would be that the financial deepening variables have made significant impact on the performance of the Nigerian Capital Market.

This study is justified as earlier investigations on this subject did not cover beyond year 2000 in their scope. Besides, it is the first time that the methodology applied in the study would include cointegration and Error Correction Model.

The paper is divided into five sections; the first section gives a general introduction to the topic of financial deepening and the performance of the Nigerian capital market therefore serving as background to the study stating its problems, objectives, hypotheses and justification. Section 2 looks into the review of existing related literature on the topic, while section 3 presents the Analytical Framework, definition of variables and methodology. Section 4 discusses the estimation strategy and presentation of results. Section 5 discusses the conclusions and policy recommendations.

2.0 LITERATURE REVIEW

A country's financial system plays a central role in the mobilization and allocation of saving for productive use of the nation providing structures for monetary management, which serves as the basis for managing liquidity in the system. It also assists in the reduction of risks faced by firms and businesses in their productive processes, improvement of portfolio diversification and the insulation of the economy from the vicissitudes of international economic changes. Additionally, the system provides linkages for the different sectors of the economy and encourages a high level of specialization expertise and economies of scale (Nzotta, 2009). It has also been argued that the financial system, additionally, provides the necessary environment for the implementation of various economic policies of the government which is intended to achieve non-inflationary growth, exchange rate stability, balance of payments equilibrium, foreign exchange management and employment generation.

Financial deepening implies the ability of financial institutions to effectively mobilize savings for investment purposes. The growth of domestic savings provides the real structure for the creation of diversified financial claims. It also presupposes active operations of financial institutions in the financial markets, which in turn entail the supply of quality (financial) instruments and financial services (Ndekwu, 1998). The views above conform to the conclusions of a study by Nnanna and Doga (1999) that financial deepening represents a system free from financial repression. Their findings in this study is that policies of financial repression aimed at encouraging domestic investments through suppressing interest rates produced negative results.

Popiel (1990) conducted one of the most elaborate studies on financial deepening. According to him, financial markets are deep from a qualitative standpoint when:

- They offer savers and investors a broad range of financial instruments which differ in terms of liquidity, yields, maturities and degree of risk including debt instruments, equity instruments and in between quasiequity instruments.
- ii) They encompass a diversity of sub-markets, trading in different financial instruments.
- iii) Mature, domestic financial markets are integrated into the international financial markets.
- iv) Are linked together through financial instruments.
- v) Finally, the markets are linked together through various financial institutions which function as market makers and financial intermediaries.

The conclusions of Popeil above agree with the views of Shaw (1973) who contends that financial deepening is an outcome of the adoption of appropriate real finance policy and the broadening of the markets. The attempt to implement this in Nigeria resulted in the deregulation of the financial system in 1986 and the various reforms in the financial system since then.

The need improve the liquidity position and deepen the financial system in developing countries has led to the various liberalization policies on the part of Governments around the world. Financial deepening focuses more on the

process of financial intermediation. Financial markets undertake this vital role of intermediation process, by channeling funds from surplus units (savers) to deficit units (investors). Some of the liberalization policy targets were designed to affect interest rate, money supply and credit availability to the private sector. The ultimate goal of these policy programmes was to achieve rapid economic advancement through the instrument of liquidity. For instance, records of countries that have taken concrete steps in this direction of liberalization include; Argentina, Australia, Ghana, Nigeria, Chile, South Korea and the Philippines. Their financial liberalization policies targets include; interest rate, credit, privatization of Banks and subsidy programmes among others.

Liberalisation represents a policy response, encompassing a package of measures intended to remove any undesirable state-imposed constraints on the free working of the financial markets. It embodies the removal of interest rate ceiling, loosening of deposit and credit controls, privatization of public enterprises and various other measures aimed at deepening the financial system (Killick and Martin, 1990). Indeed, the deepening of the financial systems occur largely through the expansion of the range and use of interest bearing instruments together with the diversification of the financial markets and financial infrastructure (Ikhide, 1997). There is also an observed relationship between per capita income and financial depth which therefore suggests that the expansion of the formal financial system is part of the development process (Popiel, 1994).

The financial repression hypothesis associated with the works of Cameron (1972); Mckinnon (1973); and Shaw (1973), highlight the negative impact of various imposition of control on financial structure, and thus, argue strongly in favour of reliance on market forces. For instance, Shaw (1973), asserted that "shallow finance, which distorts financial prices including interest rates and foreign exchange rates, has reduced the real rate of growth and the real size of the financial system relative to non-financial magnitudes. A new strategy that has the effect, among others, of deepening finance – a strategy of financial liberalization – has invariably renewed development. Hence, liberalization matters in economic development".

Okoli N studied the Nexus between financial deepening and stock market development in Nigeria. Using the GARCH model, she evaluated the variability between financial deepening variables and stock market returns for the period between 1980 and 2010. Besides indicating that there was a significant relationship between financial deepening and stock market returns, the study also indicated that financial deepening reduces the level of risk (volatility) in the stock market. By the very nature of the study, the long-run impact of financial deepening variables on the stock market trend in Nigeria is not evaluated.

Omole D. A. (1999) carried out a study on financial Deepening and Stock Market Development in Nigeria. His study focused on the impact of financial liberalization on the development of the Nigerian Stock market between 1970 and 1994. The proxies adopted were based on data predicated on the Nigerian stock market, Money supply, interest rate and exchange rate. He utilized econometric multiple regression analysis to explain the impact of financial deepening on stock market trend. The study showed that though, financial deepening was still weak in Nigeria given the magnitude of overall economic activities, it had capacity to stimulate the development of the stock market. The study concluded that monetary policies adopted over time in the country did not sufficiently deepen the financial system. The limitation of this study is that the methodology adopted is basically short-run. The study did not cover the period of major Banking reforms in Nigeria.

Various studies exist in the effort to link the development of stock markets around the world with the pace of economic growth. Caporale and Soliman (2004) observe that an organized and managed stock market stimulate investment opportunities by recognizing and financing productive projects that lead to improved economic activity, mobilize domestic savings, capital allocation proficiency, and help to diversify risks, and facilitate exchange of goods and services. Stock markets are expected to increase economic growth by increasing the liquidity of financial assets, make global and domestic risk diversification possible, promote wiser investment decisions, and positively influence corporate governance practices by increasing shareholders' interest value.

Ted Lazar et al (2005) examined the empirical association between stock market development and economic growth in India. The authors found no evidence of association between the Indian stock market development and economic growth in the entire period they studied. Whereas the authors found support for the relevance of stock market development in economic development during pre-liberalization, they discovered a negative relationship between stock market development and economic development for the post liberalization period.

Enisan and Olufisayo (2009) through autoregressive distributed lag (ARDL), evaluate the long-run relationship between stock market development and economic growth in seven of the Sub-Saharan African countries. The results indicate that stock market has a positive and significant impact on growth. Causality results indicate unidirectional causality from stock market development to economic growth for both South Africa and Egypt. While Cote D'Ivoire, Kenya, Morocco and Zimbabwe indicate bidirectional causality, Nigeria on the other hand shows weak evidence that growth causes finance.

Osinubi (1998) examines whether stock market promotes economic growth in Nigeria between the period 1980 and 2000. The study employed the Ordinary Least Squares (OLS) regression technique as the method of data estimation. The regression results, confirms that there exist positive relationship between the economic growth and the measures statistically insignificant. This in essence means that the effect of stock market on economic growth is weak and insignificant considering the stock market development used. However, these relationships are statistically insignificant. This in essence means that the effect of stock market on economic growth is weak and insignificant.

3.0 ANALYTICAL FRAMEWORK

The theoretical framework for this study is Cadelron-Rossell Model of Stock Market Development (Yartey, 2008). Calderon-Rossell in 1991 developed a partial equilibrium model of stock market growth. This model, to date represents the most comprehensive attempt to develop the foundation of a financial theory of stock market development. The model is basically a behavioural and structural approach to stock market development. In this model economic growth and stock

(1)

(2)(3)

market liquidity are considered the main determinants of stock market development. Market capitalization is defined as follows:

$$Y = P$$

Where:

Y is market capitalization in local currency;

P is the number of listed companies in the stock market; and

V is the local currency average price of listed companies.

The model can be presented formally as follows:

$$Y = PV = Y(G,T)$$

$$V = V(G, P), \qquad P = P(T, V)$$

The exogenous variable G represents per capita GNP in local currency and variable T represents the turnover ratio. The endogenous variables are V, P, and M. The structural equations are then expressed in the following reduced behavioural model:

$LogY = \theta_1 LogG + \theta_2 LogT$	(4)
The component of the reduced form model is expressed as follows:	
$LogV = \alpha_1 LogG + \alpha_2 LogT$	(5)
$LogP = \varpi_1 LogG + \varpi_2 LogT$	(6)
Equation 4 can be written as:	
$LogY = Log (PV) = \alpha_1 LogG + \alpha_2 LogT + \varpi_1 LogG + \varpi_2 LogT$	(7)
Factorizing we have:	
$LogY = (\alpha_1 + \omega_1)logG + (\alpha_2 + \omega_2)logT$	(8)
Where:	
$ heta_I = lpha_I + oldsymbol{arphi}$	(9)
and	
$\theta_2 = \alpha_2 + \overline{\omega}_2$	(10)

Equation 8 shows the impact of economic growth, G, and stock market liquidity, T on stock market development, Y. The model shows that stock market development is the result of the combined effect of economic growth and liquidity on both stock prices and the number of listings.

To examine the validity of this model, Calderon-Rossell used data from 42 countries from the main active stock markets in the world with annual observations from 1980-87. The analysis shows that stock market liquidity and economic growth are important determinants of stock market growth.

3.1 The Model

This study has adapted the Calderon-Rossell Model to take account of the role of financial deepening in the analysis of changes in stock market performance. Garcia and Liu (1999) showed that macroeconomic factors such as real income, savings rate, financial intermediary development, and stock market liquidity are important determinants of stock market development. When we combine this position with the Calderon-Rossell model, we can come up with the model adopted for analysis in this study.

The country's stock market is the apex institution of capital market activity. Therefore, stock market performance is adopted as the proxy for measuring the performance of capital market.

SMP = f(FID, GDPR, NMD, SAVR)

The acronyms in Equation (11) represent:

SMP = Stock Market Performance

GDPR = Gross Domestic Product Growth Rate

FID = Financial Development

NMD = Narrow Money Diversificationn

SAVR = Savings Growth Rate

For the purpose of analysis, we can remodel equation 11 as follows:

 $SMP = \beta_0 + \beta_1 GDPR + \beta_2 FID + \beta_3 NMD + \beta_4 SAVR + \mu$

(12)

(11)

Equation (12) is designed to measure the relationship that exists between Stock Market Performance and other independent variables. This is to see how those explanatory variables influence the stock market performance in the economy. In line with appriori expectations, the expected signs of the coefficients are: $\beta_1 > 0$; $\beta_2 > 0$; $\beta_3 > 0$; $\beta_4 > 0$. The above sign (> 0) implies a positive relationship between SMP and the coefficients of the independent variable.

3.2 Definition of Variables

Stock Market Performance (SMP)

In functional form, we capture the performance of the Stock Market by the contribution of Stock market year-end capitalization to the national output (GDP). Kavita and Rakesh (2011), in their work on "Impact of globalization on stock market development in India" used changes in market capitalization as a ratio to GDP, to measure size; an independent variable that explains or determines stock market development in India. This is estimated as the ratio of Year-on-Year changes in the level of Market Capitalization to GDP. It is Market Capitalisation divided by GDP for each year: SMP = Market Cap/GDP(13)

Income Variable (GDPR)

Gross Domestic Product (GDP) is adopted as proxy for income variable. The growth rate of GDP is adopted for data analysis and the mode of calculation is shown:

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(14)

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Where: GDPR = GDP growth rate

 $GDPR = \frac{GDP_2 - GDP_1}{GDP_1}$

 $GDP_2 = GDP$ value for the successive year

 $GDP_1 = GDP$ value for the current year

Financial Development (FID)

It is a measure of the increase in the volume of financial services of the banks, financial intermediaries, financial institutions and financial market, as demonstrated by credit to the private sector of the economy.

Augusto de la Torre, Juan Carlos Gozzi and Sergiv Schumukler (2006), "stock market development under globalization; whether the gain from reforms?" The trio used F.D as one of the independent variables that determines G.D.P growth in an economy. They found that financial development leads to growth. It is estimated as: FID = Credit to Private Sector/GDP (14)

where

FID = Financial Development

Narrow Money Diversification (NMD)

This is the ratio of demand deposits to the narrow money stock. Vogel and Buser (1976) argue that this measure represents the complexity, or sophistication of the financial market (primarily banks). An increase in this ratio implies a higher degree of diversification of financial institutions and a greater availability or use of non-currency balances (bank deposits) in the transaction process. In this paper, we adopted narrow money stock denoted as M1. Therefore;

(15)

NMD = DD/M1 Where NMD = Narrow Money Diversification DD = Demand Deposit M1 = Money Supply

Savings (SAVR)

Stock markets, like financial intermediaries, intermediate savings to investment projects. Usually the larger the savings, the higher the amount of capital flows through the stock market. Thus, we expect the volume and growth of savings in the economy to be important determinants of stock market development. We use the growth rate of gross domestic savings in the economy. It is calculated thus:

(16)

 $SAVR = \frac{SAV_2 - SAV_1}{SAV_1}$

.....

Where: SAVR = Savings growth rate

 $GDP_2 = GDP$ value for the successive year

 $GDP_1 = GDP$ value for the current year

4.0 ESTIMATION STRATEGY

The estimation technique consists of four steps procedures. The first step is the unit root test which involves the determination of the stationarity property of the time series variables, using the Augmented Dickey-Fuller (ADF) test statistics for unit root (Dickey & Fuller, 1979). The second is impact estimation, using Least Squares multiple regression method (including a constant term) is run over the sample period 1981-2012. The third is cointegration test to establish whether the time series variables have long-run equilibrium relationship. The fourth step involves testing for Error Correction Mechanism. If the cointegration test shows that the variables have long-run equilibrium relationship, then, it is a sufficient condition for an ECM formulation. If variables are non-stationary at level, but cointegrated, their dynamic relationships will be specified correctly by an error correction model (Granger and Engle, 1987). The data set for this paper consists of annual time series from 1981 - 2012 and they were obtained from Central Bank of Nigeria Statistical bulletin (CBN, 2012).

4.1 Unit Root Test

The unit root test is necessary because research has shown that non-stationary data may leads to spurious regression, and this may adversely affect the determination of cointegration relation in the long run. The summary of the results of the tests are presented in Table 1 below

From the ADF test statistics, the results in Table 1 show that; SMP, GDPR, FID, NMD and SAVR are integrated at order one, that is I(1) or they became stationary at first difference. All the variables were statistically significant at 1%, 5% and 10% critical values in first difference. The summary of the results in Table 1 shows an existence of unit root. This implies that the series may be non-stationary at levels. Therefore the null hypothesis (= 1) is accepted at levels and the null hypothesis (= 1) that the series are non-stationary after the first difference is rejected for all the series.

(17)

Table 1:	Summary	of Im,	Pesaran	and Shin	W-stat	Stationarity	Test
	•						

Null Hypothesis: Unit root (individual unit root process)					
Series: SMP, GDPR, FID, NMD, SA	VR				
Sample: 1981 2012					
Exogenous variables: Individual effe	cts, individual	linear trends			
User-specified maximum lags					
Automatic lag length selection based	on SIC: 0 to 1				
Total number of observations: 148					
Cross-sections included: 5					
Method				Statistic	Prob.**
Im, Pesaran and Shin W-stat				-10.672	0.000
** Probabilities are computed assum	ing asympotic	normality			
Intermediate ADF test results					
Series	t-Stat	Prob.	Order of Integration	Max Lag	Obs
D(SMP)	-6.1638	0.0001	I(1)	1	30
D(GDPR)	-6.5877	0.0000	I(1)	1	29
D(FID)	-6.2584	0.0001	I(1)	1	29
D(NMD)	-4.9140	0.0023	I(1)	1	30
D(SAVR)	-7.0500	0.0000	I(1)	1	30
	1% level	-4.2967			
Test critical values:	5% level	-3.5684			
	10% level	-3.2184			

Source; Author's Computation (Eviews 8)

3.2 Multiple Regression Result Analysis

Recall our model for analysis shown in equation 12:

 $SMP = \beta_0 + \beta_1 GDPR + \beta_2 FID + \beta_3 NMD + \beta_4 SAVR + \mu$

The Regression Equation designed to measure the relationship that exists between Stock Market Performance and other explanatory variables. This is to measure the impact of the explanatory variables on the performance of the Nigerian Capital Market over the years. Recall our apriori expectations, the expected signs of the coefficients are: $\beta_1 > 0$; $\beta_2 > 0$; $\beta_3 > 0$; $\beta_4 > 0$. The above sign (> 0) implies a positive relationship between SMP and the coefficients of the independent variable.

Table 2: Sun	nmary of Mult	tiple Regress	ion Result
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Dependent Variable: SMP	l l			
Method: Least Squares				
Date: 08/10/14 Time: 23:24				
Sample: 1981 2012				
Included observations: 32				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
С	-0.392728	0.088247	-4.450327	0.0001
GDPR	0.021706	0.051835	0.418756	0.6787
FID	0.207329	0.264023	0.785266	0.4391
NMD	0.887409	0.217564	4.078846	0.0004
SAVR	0.185716	0.078423	2.368132	0.0253
R-squared	0.789072	Mean dependent var		0.15759
Adjusted R-squared	0.757824	S.D. dependent var		0.12669
S.E. of regression	0.062351	Akaike info criterion		-2.56948
Sum squared resid	0.104965	Schwarz criterio	-2.34046	
Log likelihood	46.1118	Hannan-Quinn c	-2.49357	
F-statistic	25.25146	Durbin-Watson	1.96820	
Prob(F-statistic)	0.00000			

Source; Author's Computation (Eviews 8)

Estimation Equation:

SMP = C(1) + C(2)*GDPR + C(3)*FID + C(4)*NMD + C(5)*SAVRSubstituted Coefficients:

SMP = -0.392728065167 + 0.0217060236816*GDPR + 0.20732857863*FID + 0.887409336159*NMD + 0.185715750754*SAVR(18)

The result in table 2 shows that SMP is positively related to GDPR, FID, NMD and SAVR. This is in line with our apriori expectations.

The R-squared (0.79) and Adjusted R-squared (0.76) indicate good fit. About 76% of the variation in SMP is explained by the variation in the independent variables.

From the estimated result, it is obvious that if GDPR, FID, NMD, and SAVR are increased by 1%, Stock Market Performance (SMP) will increase by 0.02%, 0.21%, 0.88% and 0.19% respectively.

To test our hypothesis we used the probability (p-value) of observing the t-statistic given that the coefficient is equal to zero. Only two out of the four independent variables are statistically significant in explaining the variation in SMP at 5% and 1% levels of significance. The variables are Narrow Money Diversification (NMD) and Savings Growth Rate (SAVR).

The variable with the strongest significant impact on SMP is NMD with positive coefficient of 0.88. It implies that the increase in non-currency balances (bank deposits) has made very strong and significant impact on the Nigerian Stock Market Performance over the years. Savings Growth (SAVR) also exhibited impressive significant impact on the performance of the Nigerian stock market during the period of study.

The impact of Financial Development (FID) on stock market performance was impressive with coefficient of 0.21 but not significance. The variable with the least impact on stock market performance was GDPR. The coefficient 0.02 is weak coupled with the fact that it is insignificant.

The value of Durbin-Watson Statistic (1.97) indicates the absence of autocorrelation in the analysed data.

The value of F-Statistic is 25.25. An analysis of the probability value for F-Statistic (Prob F-Stat = 0.0000) indicates that entire regression equation is significant at both 1% and 5% levels of significance. The model is a good fit.

3.3 Cointegration Test

The unit root test earlier conducted showed that the variables are stationary at first difference. Stationarity of the residuals is potent evidence that there is evidence of convergence to long-run equilibrium among the integrated variables. Now we wish to test whether the variables are cointegrated over the sample period and if so, what the cointegrating relation is. To determine the number of significant co integration relationships, we use the Johansen's co-integration test that yields the log likelihood estimates for the unconstrained co-integration vectors.

Sample (adjusted): 1983 2012				
Included observations: 30 after adjustments				
Trend assumption: Linear deterministic trend				
Series: SMP GDPR FID NMD SAVR				
Lags interval (in first differences): 1 to 1				
Unrestricted Cointegration Rank Test (Trace)				
Hypothesized		Trace	0.05	
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None *	0.677308	93.99359	69.81889	
At most 1 *	0.63526	60.06184	47.85613	0.0002
At most 2 *	0.533247	29.80469	29.79707	0.0024
At most 3	0.206233	6.946025	15.49471	0.0499
At most 4	0.000568	0.017055	3.841466	0.5839
				0.896
Trace test indicates 3 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 Eige	envalue)			
Hypothesized		Max-Eigen	0.05	
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None *	0.677308	33.93175	33.87687	
At most 1 *	0.63526	30.25715	27.58434	0.0493
At most 2 *	0.533247	22.85866	21.13162	0.0222
At most 3	0.206233	6.92897	14.2646	0.0283
At most 4	0.000568	0.017055	3.841466	0.4976
				0.896
Max-eigenvalue test indicates 3 cointegrating eqn(s) a	at the 0.05 level			
* denotes rejection of the hypothesis at the 0.05 level				
**MacKinnon-Haug-Michelis (1999) p-values				

Table 3: Johansen Cointegration Test

Source: Author's computation (Eviews 8)

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The result of the co-integration in table 3 shows that there are three co-integration relationships among the variables included in the model. This is confirmed by the results of both Trace test and the Max-eigenvalue test shown in table 3. Specifically, the result of the co-integration test suggests that the variables have long-run equilibrium relationship with each other. This evidence of co-integration among the variables rules out spurious correlations and applies that three directions of influence can be established among the variables. It is important to note that the existence of co-integration vectors among a group of variables may not imply that there is causal influence between pairs of variables in the model of co-integration test. The presence of a co-integrating relation forms the basis of the error correction specification. The cointegration term is known as the error correction term since the deviation from long-run equilibrium is corrected gradually through a series of partial short-run adjustments Granger and Engle (1987).

3.4 Error Correction Model and Analysis of Long-run behavior of the Model

A vector error correction (VEC) model is a restricted VAR designed for use with non-stationary series that are known to be cointegrated. The VEC has cointegration relations built into the specification so that it restricts the long-run behavior of the endogenous variables to converge to their cointegrating relationships while allowing for short-run adjustment dynamics. Our analysis of table 1 shows that since the variables are non-stationary at levels but become stationary after first difference. The variables in the model are cointegrated as suggested by our Johansen cointegration test in table 3. Given the situation, their dynamic relationships must be specified by an error correction model (ECM) in order to capture both the short-run and long-run relationships. The Error Correction for the long run Nigerian Stock Market Performance (SMP) equation is written below:

D(SMP) = -0.162749836192*(SMP(-1) + 0.0599848339066 + 0.865956916616*GDPR(-1) - 1.81266528669*FID(-1) + 0.562276732854*NMD(-1) - 1.8674346261*SAVR(-1)) (19)

The equation (19) above depicts the Error Correction Mechanism (ECM) of our Model (see table 4). It implies that the long run adjustment coefficient of the dependent variable SMP is -0.16. The value is negative and statistically significant in conformity with an effective error correction model. It indicates that the speed of annual (short-run) adjustments of SMP is 16% to long run deviations from equilibrium. The long-run intercept term for the model is positive with 0.06. The Error Correction Equation also depicts that the coefficients of GDPR and NMD are positive in adjusting to the long run disequilibrium given by the ECM value (-0.16). The coefficients of FID and SAVR are negative in serving the same purpose.

Dependent Variable: D(SMP)				
Method: Least Squares				
Date: 08/11/14 Time: 03:24				
Sample (adjusted): 1983 2012				
Included observations: 30 after adjustments				
$\begin{split} D(SMP) &= C(1)*(SMP(-1) + 0.8659569*GDPR(-1) \\ 1.86743*SAVR(-1) + 0.05998483) + C(2)*D(SMFC(5)*D(NMD(-1)) + C(6)*D(SAVR(-1)) + C(7) \end{split}$	l) - 1.812665*FII P(-1)) + C(3)*D(C	D(-1) + 0.56227 DOR(-1)) + Control = 0	7*NMD(-1) - (4) *D(FID(-1)))+
	Coefficient	Std. Error	t-Statistic	Prob.
C(1)	-0.16275	0.087349	-1.863223	0.0253
C(2)	-0.304623	0.204745	-1.487819	0.1504
C(3)	0.094351	0.063461	1.48675	0.1507
C(4)	-1.871912	0.659904	-2.836641	0.0093
C(5)	0.225198	0.423265	0.53205	0.5998
C(6)	-0.204306	0.141394	-1.444941	0.0320
C(7)	0.020559	0.015783	1.302634	0.0256
R-squared	0.343514	Mean dependent var		0.00877
Adjusted R-squared	0.172257	S.D. dependent var		0.08845
S.E. of regression	0.080474	Akaike info criterion		-2.00081
Sum squared resid	0.148949	Schwarz criterion		-1.67386
Log likelihood	37.01209	Hannan-Quinn criter.		-1.89621
F-statistic	2.005837	Durbin-Wats	on stat	2.08586
Prob(F-statistic)	0.106225			

Table 4: Error Correction Model Test

Source: Author's computation (Eviews 8)

However, the result shows that FID and SAVR are statistically significant therefore more meaningful in our analysis while trying to determine the growth rate of SMP in the long run.

5.0 FINDINGS AND RECOMMENDATIONS

This research study attempts to investigate the empirical relationship between financial deepening and capital market in Nigeria. The deductions that could be made from the empirical findings are predicted on the sizes and magnitude of the slope coefficient of the variables adopted in the study. It was revealed that Narrow Money Diversification (availability or use of non-currency balances (bank deposits)) and Saving Growth significantly impacted the performance of the Nigerian stock market during the period of study. Though, other measures of financial deepening represented by Financial Development (FID) and Gross Domestic Product (GDPR) were not significant in explaining the trend in the performance of the stock market. However, FID (involving credit to private sector of the economy) exhibited very strong coefficient in the study.

In the light of the above findings, the following recommendations are made in this study:

First, bank deposits play an important role in stock market development. It is important to initiate policies to foster the monetization and growth of financial transactions through the banks for stronger impact on the capital market.

Second, the promotion of savings culture among the citizens of the country would positively impact on liquidity that is channeled to the development of the capital market. Domestic investment is an important determinant of capital market development in emerging markets. Policy makers should come up with ways to further encourage savings and investment among the people of the country.

Third, Financial Deepening in the country can be enhanced through the implementation of a carefully planned financial inclusion programme that would involve the extension of financial services to deficient locations and people in the country.

Fourth, the structure of credit to the private sector has to be improved to have positive impact on the development of the Nigerian capital market.

Finally, the study also recommends that there should be concrete improvements in the activities of the Nigerian capital market. Laws should be enacted to make the Nigerian stock market more globally competitive and there should be proper regulation of the activities of market operators.

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