Effect of Capital Market on Economic Development of Emerging Economies: Nigeria and South Africa

Chikwendu Samuel Mpamugo*, Emmanuel E. Chigbu, Oforegbunam T. Ebiringa, Aghalugbulam B. C. Akujuobi
Department of Financial Management Technology,
School of Management Technology,
Federal University of Technology, Owerri, Nigeria

Abstract. This study investigated the effect of capital market on the economic development of emerging economies: Nigeria and South Africa. The objective of the study was to find out if there is significant relationship between the capital market and economic development of the countries under study. The study relied mainly on secondary data for the analysis and covered the period between 1990 to 2018. In the study, human development index was used as a proxy for economic development (HDI). The augmented Dickey-Fuller unit root test, Johansen's co-integration test, the error correction model and granger causality test were used in the analysis. Findings revealed that the relationship between market capitalization and economic development was positive but insignificant in both Nigeria and South Africa. The result also revealed that human development index is a positive and significant function of value of securities traded and stock market turnover ratio in both Nigeria and South Africa. However, while the relationship between all share index and human development index was found to be negative and significant in Nigeria, human development index was found to be a positive and significant function of all share index in South Africa. In both Nigeria and South Africa, only stock market turnover ratio was found to granger cause human development index. The study recommends that polices should be formulated to attract both local and foreign participants to the market in order to facilitate economic development.

Keywords: Human development index, economic development, co-integration, capital market, causality, error correction model

Introduction

The capital market is a market where long-term financial instruments are bought and sold. The market assumes a central position in the economic growth process of any nation. It is a network of financial institutions and infrastructure that interact to mobilize long-term financial resources in the economy. It provides avenue for firms and governments to sell stocks and bonds to raise long-term funds from the savings of the surplus units of the economy which will subsequently lead to increase in total output of the economy (Dayaratne & Wijethunga, 2015). As Iyoha (2004) puts it, the sourcing of long-term finance through the capital market is essential for self-sustained economic growth which is consistent with external adjustment and rapid economic growth. An integrated and active capital market aids the mobilization of savings from the surplus economic units of the economy, promotes efficient allocation of resources through changes in wealth ownership and composition, encourages active private sector participation in the economy, supports capital formation and facilitates rapid economic growth and development. It is for these reasons that an active capital market is promoted in an emerging economy (CBN, 2007).

A well-functioning capital market is expected to facilitate the socio- economic growth and development of emerging and developed economies through some of the vital roles it

*Corresponding Author: Chikwendu Samuel Mpamugo, PhD Candidate

plays such as mobilization of adequate resources and efficiently allocating these resources to productive investments through its intermediation process, provision of long-term, non-debt financial capital which enables companies to reduce the problem associated with over gearing, providing appropriate platform to engender best corporate practices that will lead to increase in investment and further growth of the economy as well as acquisition of information about firms, among others.

This study is considered necessary in view of the apparent sluggish economic development in the selected emerging economies as evidenced from apparent low GDP growth rate, low level of industrialization, high rate of unemployment, poor educational and health facilities as well as low level of infrastructural development in spite of the level of capitalization of their capital markets over the years and the apparent huge amounts of money that have been spent to enhance the functioning of the markets. This trend, if allowed to continue, could lead to serious economic depression in the affected economies. In the light of the above, the study investigated the effect of capital markets on the economic development of Nigeria and South Africa. Specifically, the study investigated:

i. The relationship between market capitalization and economic development in Nigeria and South Africa.

ii. The extent to which the total value of securities traded affect economic development in Nigeria and South Africa.

iii. If the stock market turnover ratio affect economic development in Nigeria and South Africa.

iv. The extent to which all share index enhance economic development in both countries Nigeria.

Although some studies have been carried out in this area, this study has added to the stock of knowledge and has given rise to empirical basis for examining the causal relationship between the capital markets of Nigeria and South Africa and their economic developments. This is more so as the human development index (HDI), that gives a broader view of economic development than the GDP, was used as proxy for economic development.

Literature Review

The capital market is the part of the financial market which deals in long-term corporate securities as well as procedures for financing long-term investments. The market offers a variety of high quality financial instruments such as common stock, preferred stock, bonds and convertible securities. By dealing in financial assets with attractive yields, liquidity and risk characteristics, the market encourages saving by individuals, groups and institutions. Through the institutions and intermediaries that make up the capital markets, the society's surplus funds are made available to government and corporations in need of funds for long-term investments, corporate expansion, development of new product lines and desirable social amenities that have both direct and indirect bearing with economic development. Osaze (2000) posited that the capital market drives any economy to growth and development because it is essential for the long-term gross capital formation.

This study is anchored on the Endogenous Growth Theory (New Growth Theory) which emerged in the mid-1980s. The theorists (Romer, 1986; Lucas, 1988; Aghion & Howitt 1992, etc.) argued that technological progress is endogenous, and is an important determinant of economic growth. According to the theory, investment in physical and human capital, innovation, and knowledge are significant contributors to economic growth. The theory also focuses on positive externalities and spillover effects of a knowledge-based economy which will lead to economic development. The endogenous growth theory basically holds that long-run growth rate of an economy depends on policy measures. For example,

policies that support subsidies for research and development or education will increase the growth rate by increasing the incentive for innovation.

According to this theory, an economy's long-run growth rate depends on its saving rate.

Over the decades, there have been large numbers of empirical studies that tried to analyze the effect of financial development on economic growth and development by using different types of econometric approaches and a variety of indicators to measure financial development.

Most of these studies substantiate that both capital market and banking sector development have strong positive effect on growth. However, in some cases, findings revealed lack of correlation between financial development and economic growth and development.

Levine and Zervos (1996) investigated the relationship between stock market development and long-run economic growth. The study used pooled cross-country time series regression of forty – one countries from 1976 to 1993 to examine this relationship. The result showed a strong correlation between overall stock market development and long- run economic growth.

Nyong (1997) developed an aggregate index of capital market development and used it to determine its relationship with long-run economic growth in Nigeria. The study was conducted using time series data from 1970 to 1994.

Four measures of capital market development, the ratio of market capitalization to GDP, the ratio of total value of transactions on the main stock exchange to GDP, the value of equities transaction relative to GDP, and total listings were used. The four measures were combined into one overall composite index of capital market development using principle component analysis. A control variable represented by a measure of financial market debt (which is the ratio of broad money to stock of money to GDP), was also included in the study. The result of the study showed that capital market development is negatively and significantly correlated with long-run growth in Nigeria.

In South Africa, Odihiambo (2009) examined the causal link between stock market development and economic growth in South Africa by applying Autoregressive Distributed Lag (ARDL) bounds testing to technique on annual time series data. The study found evidence of causal impact of stock market development on economic growth. Ndako (2009) also investigated the causal link between stock market developments in South Africa. The study applied the analytical technique of vector error correction models (VECM) on quarterly data for the same period as in the case of Odihiambo. The result of the study showed evidence of causal impact of economic growth on stock market development, which was a direct opposite of Odihiambo's finding in terms of causal flow.

The nature of the data as well as the techniques of analysis employed may have influenced the results.

Irving (2005) investigated the link between capital market and overall socio-economic development in Eastern and Southern Africa and found it to be non-existent or even harmful. He therefore, advised that Africa should pay more attention to weightier problems such as poverty, undeveloped infrastructure and inadequate social services rather than devote further scare resources and efforts to promoting stock exchanges.

Araoye, Ajayi and Aruwaji (2018) examined the impact of the Nigerian Stock market development on the nation's economic growth from 1985 to 2014. The GDP was used as proxy for economic growth while market capitalization and market turnover ratio were used as proxies for stock market development in terms of size and liquidity respectively. The study used the Johansen's co-integration test in establishing if a long–run relationship does exist between stock market development and economic growth in Nigeria. The study also used the error correction model to find out if the stock market is significant in determining economic

growth in Nigeria .Results of the study revealed that the stock market has impacted insignificantly on the economic growth. This is because both market capitalization and turnover ratio presented positive and insignificant relationship with gross domestic product. The study recommends that policy makers should ensure improvement in market capitalization by encouraging foreign direct investment participation in the market. It further recommended that small and medium entrepreneurs should be encouraged to access the market for investible funds given their close affinity with the grass root fund mobilization ability.

Methodology

This is an econometric study of the capital market of Nigeria involving the analysis of annual time series data covering the period 1990 to 2018. The selection of the study period was based on the year (1990) in which the United Nations Development Programme (UNDP), in its Annual Development Reports, initiated the construction and refinement of the Human Development Index (HDI) (Todaro and Smith 2009). The Nigeria stock Exchange (NSE), National Bureau of Statistics (NBS), Central Bank of Nigeria (CBN), World Federation of Exchanges (WFE), African Federation of Exchanges (AFE), United Nations Development Programme (UNDP) Reports (various series), the relevant literatures(books, journals, previous research papers and electronic sites) and the World Bank were the main source of data for this study. The stock market indicators used for the test include market capitalization to GDP ratio, total value of securities to GDP ratio, stock market turnover ratio and all share index; while the Human Development Index (HDI) was used as a proxy for economic development. Each of these indicators was tested against HDI to determine their effect on the economic development of Nigeria and South Africa.

Specification of the Model

The model adopted for this study was based on the improvement suggested by Demirgue-kunt and Levine (1996), Levine and Zervos (1996) and Ewah, Esang and Bassey (2009) which have investigated linkage between stock market and economic growth and development. Their studies infer that the economic growth (proxied by Gross Domestic Product) is significantly influenced by the capital market indices such as market capitalization, value of securities traded, turnover ratio, all share index and total listing. The departure from the other studies is that this study adopted the Human Development Index (HDI) as a proxy for economic development. The HDI is a better measure of economic development because it represents inclusive growth and it is an index which combines measurement of life expectancy, literacy, educational attainment and gross domestic product (GDP) per capita (Todaro & Smith, 2009).

In the light of this, the general econometric model for the determination of long-run effect of the capital market on the economic development of Nigeria and South Africa will be stated as follows:

$$HDI = F(MCAPGDP, VSTGDP, SMT, ALSI) \quad (1)$$

Where:
HDI = Human Development Index (proxy for economic development)
MCAPGDP = Total Market Capitalization Ratio
VSTGDP = Total Values of Securities Traded Ratio
SMT = Stock Market Turnover Ratio
ALSI = All Share Index

The explicit forms of equation (1) are represented in the different models as stated below.

MODEL 1: This model specifies the equation for Nigeria

$$HDI_tN=\beta_0+\beta_1HDI_{t-1}+\beta_2MCAPGDP_t+\beta_3VSTGDP_t+\beta_4SMT_t\beta_5ALSI+\mu_t \quad (2)$$

MODEL 2: This model specifies the equation for South Africa

$$HDI_tS=\beta_0+\beta_1HDI_{t-1}+\beta_2MCAPGDP_t+\beta_3VSTGDP_t+\beta_4SMT_t+\beta_5ALSI+\mu_t \quad (3)$$

Where: β_0 = Intercept of relationship in the model. Constants β_1 –β_5 = coefficients of each of the independent variables. μt = stochastic/error term

For the purpose of analysis, variables for Nigeria and South Africa shall be differentiated by attaching N and SA, respectively.

Human Development Index: is an index that combines measurements of life expectancy, literacy, educational attainment and gross domestic product (GDP) per capita for countries worldwide. It is used as a standard means of measuring development, as well as to determine whether a country is developed, developing or underdeveloped.

Market Capitalization Ratio: is a measure for the stock market size. It is calculated as the ratio of the market capitalization to GDP. The reason behind this measure is that the overall market size is positively correlated with the ability of the market to mobilize capital and diversify risk on economy wide basis (Levine & Zervos, 1996).

Value of Security Traded Ratio: Compliments market capitalization. It is an indicator of market liquidity and it is computed as the total value of bonds and shares traded divided by the gross domestic product of the economy.

Turnover Ratio: Measures liquidity of the market and high turnover ratio is an indication of low transaction cost in the capital market. The ratio also compliments the total value traded ratio and is computed as the value of total share traded divided by market capitalization.

All Share Index: Shows the changing average value of the share prices of all companies on a stock exchange, and it is used as a measure of how well a market is performing.

A priori Expectation

Based on the literature, all capital market development measures especially those being used for this study are expected to have positive impact on economic development through liquidity injection and efficient allocation of resources. That is, a priori expectation of the coefficients of the model is that β_1, β_2, β_3, β_4 >0.

Results

Data on HDI, MCAPGDP, VSTGGDP, SMT and ALSI for both Nigeria and South Africa are presented in Tables 1 and 2 respectively.

Unit Root Test

The human development index and capital market indicators in Tables 1 and 2 were tested for stationarity using the Augmented Dickey-Fuller Unit Root Test, to avoid spurious results which could have arisen if non stationary data were used for regression. The results show that all the variables are stationary at first difference. In other words, all the variables are integrated of order one, I(1). The summary of these results is shown in Table 3 as follows:

Table 1. Data on Human Development index and Capital Market Indicators in Nigeria

Year	HDIN	MCAPGDPN	VSTGDPN	SMTN	ALSIN
1990	0.411	3.45	0.05	1.41	513.79
1991	0.405	4.23	0.04	1.04	783
1992	0.406	3.56	0.06	1.57	1107.61

1993	0.418	4.36	0.07	1.68	1543.84
1994	0.429	4.74	0.07	1.49	2205.02
1995	0.432	6.2	0.06	1.02	5092.21
1996	0.42	7.09	0.17	2.44	6992.1
1997	0.436	6.73	0.25	3.66	6440.53
1998	0.439	6.58	0.34	5.17	5672.72
1999	0.427	6.41	0.3	4.69	5266.41
2000	0.434	7.04	0.42	5.96	8111.04
2001	0.521	9.61	0.84	8.71	10963
2002	0.440	9.81	0.76	7.77	12137.72
2003	0.453	13.71	1.21	8.86	20128.94
2004	0.462	18.51	1.98	10.69	23844.46
2005	0.468	19.85	1.8	9.07	24085.8
2006	0.466	27.58	2.53	9.18	33189.31
2007	0.478	63.81	5.21	8.16	57990.23
2008	0.486	39.36	6.91	17.56	31450.82
2009	0.449	28.36	2.77	9.75	20827.21
2010	0.493	18.16	1.46	8.07	24770.5
2011	0.499	16.32	1.01	6.22	20730.63
2012	0.505	20.64	1.13	5.47	28078.84
2013	0.521	23.82	2.94	12.32	41329.21
2014	0.525	18.95	1.5	7.91	34657.2
2015	0.527	17.86	1	8.2	28642.25
2016	0.530	9.10	0.40	7.52	32438.54
2017	0.532	12.00	0.60	5.90	38439.38
2018	0.538	12.36	0.57	6.20	38540.24

Sources: World Bank, UNDP, World Federation of Exchanges (WFE), African Federation of Exchanges (AFE), CBN, NSE, National Bureau of Statistics of Nigeria.

Table 2. Data on Human Development Index and Capital Market Indicators in South Africa

Year	HDISA	MCAPGDPSA	VSTGDPSA	SMTSA	ALSISA
1990	0.621	123.19	4.57	6.86	2720.01
1991	0.618	139.74	5.21	5.26	3440.01
1992	0.705	76.69	5.95	5.72	3259
1993	0.722	131.93	10.01	9.45	4893
1994	0.734	166.44	11.49	7.84	5867
1995	0.654	185.64	11.28	6.74	6228
1996	0.652	168.07	18.93	18.42	6657.5
1997	0.655	155.93	30.05	18.89	6202.3
1998	0.697	126.77	43.45	28.98	5430.5
1999	0.674	197.07	54.75	33.7	8543
2000	0.632	154.24	58.32	33.18	8326
2001	0.63	117.95	58.81	40.43	10441.7
2002	0.645	166.17	69.12	48.6	9358.9
2003	0.658	159.16	72.29	45.46	10387.22
2004	0.635	207.93	76.5	45.02	12656.87

2005	0.603	228.86	90.05	39.32	18096.55
2006	0.621	273.95	117.45	48.8	24915.2
2007	0.61	291.28	160.05	55	28957.97
2008	0.623	179.37	108.51	60.62	21509.2
2009	0.631	249.04	142.61	57.27	27666.44
2010	0.643	278.53	110.52	39.61	32118.89
2011	0.651	130.40	102.87	37.82	29247.21
2012	0.659	159.42	115.73	40.26	34712.45
2013	0.663	257.43	134.51	35.43	39286.12
2014	0.665	266.73	146.00	32.56	46318.5
2015	0.666	234.00	145.80	31.80	51269.54
2016	0.667	312.21	136.21	30.50	48352.26
2017	0.666	332.28	138.45	25.70	59772.80
2018	0.669	340.10	140.25	25.92	59820.16

Sources: World Bank, UNDP, World Federation of Exchanges (WFE), African Federation of Exchanges (AFE), Johannesburg Stock Exchange (JSE) Website.

From Table 3, the absolute values of ADF statistic of all the series in both Nigeria and South Africa are more than their 1 percent critical values and far more than that of 5 percent at first difference. This implies that the series are differenced once for them to be stationary. They are therefore said to be integrated of order one and since all the variables are integrated of order one, the researcher resorted to testing for co-integration between the variables to determine the stationarity of the combined series.

Table 3. Augmented Dickey-Fuller (ADF) Unit-Root Test

Countries		**Lag**	**ADF Test Statistic**	**Critical Values**		Remarks
	Variables	SCI	1st difference	1%	5%	
Nigeria	HDIN	5	-7.764835	-3.737853	-2.991878	Stationary
	MCAPGDPN	5	-5.080782	-3.737853	-2.991878	Stationary
	SMTN	5	-7.369156	-3.737853	-2.991878	Stationary
	VSTGDPN	5	-4.204753	-3.737853	-2.991878	Stationary
	ALSIN	5	-6.852780	-3.737853	-2.991878	Stationary
South Africa	HDISA	5	-5.609092	-3.737853	-2.991878	Stationary
	MCAPGDPSA	5	-6.693941	-3.752946	-2.998064	Stationary
	SMTSA	5	-3.974996	-3.737853	-2.991878	Stationary
	VSTGDPSA	5	-7.097575	-3.737853	-2.991878	Stationary
	ALSISA	5	-4.581521	-3.737853	-2.991878	Stationary

Results of Co-integration Test

The result of the co-integration test is presented in Table 4 as follows:

Table 4. Johansen's Co-integration Test

Countries	**Hypothesized**		**Trace**	**0.05**	Prob.**
	No. of CE(s)	Eigenvalue	Statistic	Critical Value	
Nigeria	None *	0.958435	158.0379	69.81889	0.0000
	At most 1 *	0.922928	84.88769	47.85613	0.0000
	At most 2	0.477742	25.93846	29.79707	0.1305

	At most 3	0.290399	10.99788	15.49471	0.2116
	At most 4	0.126386	3.107673	3.841466	0.0779
South Africa	None *	0.772241	83.44638	69.81889	0.0028
	At most 1 *	0.573303	47.94255	47.85613	0.0491
	At most 2	0.443384	27.50217	29.79707	0.0899
	At most 3	0.388698	13.44085	15.49471	0.0996
	At most 4	0.065623	1.628897	3.841466	0.2019

Note: Trace test indicates 2 co-integrating eqn(s) at the 0.05 level; * denotes rejection of the hypothesis at the 0.05 level; **MacKinnon-Haug-Michelis (1999) p-values

The result of Table 4 shows that there are two cointegrating equations in the series suggesting the existence of a long-run relationship between the human development index and the capital market indicators in Nigeria and South Africa. The existence of co-integrating equations informed the use of the error correction model in order to know how these variables adjust in response to a random shock and also to determine the long-run impact of the capital market variables on the human development index in Nigeria and South Africa.

Results of Error Correction Model

The parsimonious result of the error correction model for both Nigeria and South Africa are shown in Tables 5 and 6; respectively as follows:

Table 5. Parsimonious Results of the Error Correction Model for HDI in Nigeria

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(HDIN(-1))	0.545862	0.206729	2.640465	0.0385
D(MCAPGDPN(-2))	0.019907	0.008322	2.001841	0.0639
D(MCAPGDPN(-3))	0.009118	0.003260	2.796262	0.0813
D(SMTN(-1))	0.040497	0.006441	3.181162	0.0190
D(SMTN(-3))	0.008313	0.005893	2.410736	0.0080
D(SMTN(-4))	-0.032725	0.008314	-3.935740	0.0077
D(VSTGDPN(-1))	0.196660	0.066437	2.960071	0.0253
D(VSTGDPN(-3))	0.215372	0.063252	3.404985	0.0144
D(VSTGDPN(-4))	0.013268	0.016254	0.816290	0.4455
D(ALSIN(-1))	-1.28E-05	4.91E-06	-2.614412	0.0399
D(ALSIN(-2))	4.20E-06	3.08E-06	1.364782	0.2213
D(ALSIN(-3))	-2.24E-05	4.46E-06	-5.015000	0.0024
D(ALSIN(-4))	-2.87E-05	6.38E-06	-4.496714	0.0041
ECT(-1)	-2.650111	0.434559	-6.098394	0.0009
C	0.072715	0.015309	4.749643	0.0032
R-squared	0.930369	Mean dependent var		0.004048
Adjusted R-squared	0.767896	S.D. dependent var		0.031791
S.E. of regression	0.015316	Akaike info criterion		-5.344046
Sum squared resid	0.001407	Schwarz criterion		-4.597959
Log likelihood	71.11248	Hannan-Quinn criter.		-5.182126
F-statistic	5.726292	Durbin-Watson stat		1.886569
Prob (F-statistic)	0.020619			

The result of the analysis in Table 5 shows that past human development index (HDI) at lag 1 reinforces itself. In other words, increase in the past HDI in Nigeria leads to increase in the present value of HDI. The ratio of value of securities traded to GDP and stock market turnover ratio which are proxies for market liquidity exert positive and significant impact on human development index in Nigeria while all share index at lags 1, 3 and 4 exert negative and significant impact on HDI. Market capitalization ratio at lags 2 and 3 related positively and insignificantly to HDI.

The result of the analysis in Table 6 shows that past human development index (HDI) at lag 1 reinforces itself. In other words, increase in the past HDI in South Africa leads to increase in the present value of HDI. The value of securities traded ratio, stock market turnover ratio and all share index exert positive and significant impact on human development index (HDI). Market capitalization ratio does not exert any significant impact on HDI in South Africa.

Table 6. Parsimonious Results of the Error Correction Model for HDI in South Africa

Variable	Coefficient	Std. Error	t-Statistic	
D(HDISA(-1))	0.490354	0.169696	-2.889572	0.0202
D(MCAPGDPSA(-2))	0.000199	0.000124	1.601602	0.1479
D(SMTSA(-1))	0.003737	0.001176	3.173340	0.0131
D(SMTSA(-2))	0.000579	0.000792	0.731310	0.4855
D(VSTGDPSA(-2))	0.041284	0.000314	3.766306	0.0055
D(VSTGDPSA(-3))	0.001756	0.000431	4.057815	0.0036
D(VSTGDPSA(-4))	5.41E-05	0.000252	0.214887	0.8352
D(ALSISA(-3))	5.14E-06	1.52E-06	3.391203	0.0095
D(ALSISA(-4))	2.34E-06	1.76E-06	1.330114	0.2201
D(ALSISA(-5))	8.34E-06	2.66E-06	3.132732	0.0140
ECT(-1)	-0.704463	0.248626	-2.833426	0.0220
C	-0.012998	0.005883	-2.209005	0.0582
R-squared	0.846514	Mean dependent var		0.001050
Adjusted R-squared	0.635471	S.D. dependent var		0.022439
S.E. of regression	0.013548	Akaike info criterion		-5.481442
Sum squared resid	0.001468	Schwarz criterion		-4.884003
Log likelihood	66.81442	Hannan-Quinn criter.		-5.364816
F-statistic	4.011093	Durbin-Watson stat		2.128505
Prob (F-statistic)	0.029420			

Pairwise Granger Causality Test Results

The results in Table 7 show that in both Nigeria and South Africa only the stock market turnover ratio granger HDI, but HDI does not granger cause stock market turnover ratio. The rest of the capital market indicators do not granger cause the HDI.

Discussion of Findings

The findings of the study show that Nigeria and South Africa share relatively common characteristics in terms of capital market behavior. Human development index in both Nigeria and South Africa is a positive and insignificant function of the ratio of market capitalization to GDP. In other words, in both countries, market capitalization to GDP ratio has a positive but insignificant effect on HDI.

Table 7. Pairwise Granger Causality Test Results in Nigeria and South Africa

Countries	Null Hypothesis:	Obs	F-Statistic	Prob.
Nigeria	MCAPGDPN does not Granger Cause HDIN	26	0.21251	0.8106
	HDIN does not Granger Cause MCAPGDPN		0.53253	0.5956
	VSTGDPN does not Granger Cause HDIN	26	0.02074	0.9795
	HDIN does not Granger Cause VSTGDPN		0.11913	0.8881
	SMTN does not Granger Cause HDIN	26	8.33235	0.0214
	HDIN does not Granger Cause SMTN		0.75213	0.4849
	ALSIN does not Granger Cause HDIN	26	1.07437	0.3614
	HDIN does not Granger Cause ALSIN		0.55108	0.5852
South Africa	MCAPGDPSA does not Granger Cause HDISA	26	1.29759	0.2963
	HDISA does not Granger Cause MCAPGDPSA		0.10410	0.9016
	VSTGDPSA does not Granger Cause HDISA	26	2.26548	0.1311
	HDISA does not Granger Cause VSTGDPSA		0.00784	0.9922
	SMTSA does not Granger Cause HDISA	26	10.7234	0.0008
	HDISA does not Granger Cause SMTSA		1.56715	0.2344
	ALSISA does not Granger Cause HDISA	26	0.26295	0.7715
	HDISA does not Granger Cause ALSISA		0.09289	0.9117

Again, in Nigeria and South Africa, value of securities traded and stock market turnover ratio have positive and significant effect on human development index. However, all share index exerts a negative and significant effect on human development index in Nigeria; while in South Africa it exerts a positive and significant effect on HDI.

In both countries, only stock market turnover ratio was found to granger cause human development index. The error correction terms for both countries are rightly signed (negative) and the overall regression in Nigeria with F-value of 5.726292 and probability value of 0.020619, and South Africa with F-value of 4.011093 and probability value of 0.029420 are significant with no autocorrelation.

Conclusion

The results of the study confirm the existence of a link between capital market and economic development. However, the extent to which capital market affect economic development in the emerging economies is found to be rather weak, as seen from the small values of the co-efficients. A possible explanation may be that the capital markets of the affected countries do not have adequate representation of the major contributors to human development index such as health and educational sectors. Another reason could be the lack of awareness on the part of some members of the public with regards to investment opportunities that exist in the capital market

The study recommends that government and regulatory agencies should formulate policies to encourage companies operating in the domestic economy; including educational and health institutions, to be listed on the domestic stock exchange. Such polices should include removal of impediments to listing as well as increase in public enlightenment campaign on the activities of the capital market. These measures will help to build up investors' confidence, increase investment instruments, reduce transaction and information costs and ensure qualitative and health education programmes that will facilitate economic development.

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