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Capital Market and the Performance of the Manufacturing Industries in Nigeria 1970-2012

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Abstract
The study examines the role of the capital market in financing the manufacturing sector in Nigeria between 1970- 2012. Precisely, the study sought to determine the extent to which the Nigerian capital market contributes to the development of manufacturing industries. Using secondary data, the ordinary least square method, co-integration test and error correction method; the study reveals that there is a long – term relationship between capital market and the development of the manufacturing firms in Nigeria but the growth in capital market activities did not impact significantly on the manufacturing sector during the period under review. In fact, the Nigerian manufacturing sector has been on the decline because of non-access to long-term funds from the capital market, high interest rate, volatile foreign exchange and unstable electricity. The study recommends that the capital market operators and regulators should encourage local manufacturing firms to list on the exchange by relaxing their conditions, reduce fees, and expand their offerings. Also, Government should provide necessary infrastructure to support the growth and the development of the manufacturing sector.
Keywords: Capital Market, Financial System, Inclusive Economic Growth, Market Capitalization, Manufacturing Sector Model And Dynamic Regression Analysis

INTRODUCTION

Background to the study

Manufacturing has been identify as a major determinant in achieving macroeconomic goal of inclusive economic growth. In recent times, inclusive economic growth and job creation have been the focal point of most developing countries. This is necessitated by the fact that these countries are experiencing economics growth without development. Nigeria with annual growth rate of 6.5percent and a rebased GDP of N8 trillion naira making it the largest economy in Africa has not witnessed significant reduction on the level of poverty, income inequity and unemployment. The importance of the manufacturing subsector in the development of Nigeria's economy has long been identified; not only in the area of employment provision but also in the respect of raising income and diversifying the Nigeria economy.

It is pertinent to mention that the manufacturing sector of Nigeria has passed through four stages of development. These stages as identified by (Anyanwu et al ibid 1998) are:

- The pre-independence era, when manufacturing was limited to primary processing of raw materials for export.
- The post-colonial era of the 1960s characterized by more vigorous import-substitution.
- The third is the decade of the 1970s, which witnessed the advent of oil and the enormous resources it provided.
- The fourth phase is the decade of the 1980s that experienced dwindling oil revenue.

Also the fifth phase is the pre- SAP era till date which led to near collapse of the Nigerian economy.

A review of the manufacturing sector indicated that the sector has been performing below expectation, leading to decline in industry productivity. In fact, the manufacturing sector in Nigeria contributions just 4% of the Gross Domestic Product (GDP). It is disgusting to note that industries are closing up/have closed up shop. Specifically between 2000 and 2011, over 800 manufacturing industries in Nigeria either shut down or temporarily halted production while capacity utilization in industries have continued to hover around 30% to 45% on the average with 100% overhead cost. (Ayayi 2012).

Thus it is crystal clear that the manufacturing sector is experiencing enormous challenges that if not addressed urgently will threaten the foundation of the country transformation agenda.

The Manufacturing Association of Nigeria (MAN) in business day, Monday 17 September 2012 listed the following main challenges militating against the growth of the sector:

- Difficult and unfavourable operating environment due mainly to acute infrastructure deficiency in the nation
- Irregular supply of industrial fuels arising from epileptic operation of local refineries.
- High cost of alternative power supply to industries resulting in un-competitiveness of locally produced goods.
- Death of skilled middle-level manpower.
- High cost of fund and unavailability of long term loan windows to support long-gestation investment.

Perennial security challenges, confronting the country. Particularly the increasing trend in terrorism, kidnapping and armed robbery, etc.

The country inability to achieve inclusive growth and job creation has been linked to lack of infrastructure, unstable electricity supply and slow growth of the industrial sector. In fact, the manufacturing sector which is the engine room of economic growth has continued to decline progressively to the extend it only contributed about 4percent to GDP. This is attributed partly to lack of long-term funds that is required to galvanize the sector in providing impetus for inclusive growth and job creation. Long-term funding which is the bane of the manufacturing sector could be achieved through an active capital market that mobilizes long term funds for the development of small and medium scale industries in Nigeria (Kwode 2014). It is crystal clear that the dearth of long-term capital especially in the developing countries like Nigeria makes the capital market indispensable.

Capital market is an integral part of the financial system that provides an efficient delivery mechanism for mobilization and allocation, management and distribution of long-term funds. It is a network of financial institutions and infrastructure that interact to mobilise and allocate long-term funds for the economy. According to Gbosi (2009), capital market is that part of the financial market which specialises in the mobilization of long-term funds for commerce and industry.

In Nigeria, the role of the capital market in Industrial development cum economic growth of the country has continued to generate a lot of arguments amongst economists and policy makers. Some scholars have maintained that the Nigerian Capital Market had performed below expectation as a purveyor of cheap and stable funds for Nigeria's industrial sector. For instance, Ariyo and Adelegan (2005) argued that the liberalization of capital market led to the growth of the Nigerian capital market yet its impact at the macro economy was negligible. Osai-Brown (2009) pointed out that the Nigerian capital market earning the unenviable accolade as one of the world's worst performing stock market in 2008 after losing N5.2 trillion in market capitalization and 54 percent in the All-Share Index, just a year after it had emerged as the world's best performing stock market in 2007 with return of 47 percent. The Nigeria capital market as represented by the stock exchange has experienced growth as indicated by growth of its performance indicators namely market capitalization which was about N13trillion in 2007 but declined to N9.91 trillion in 2010 while All share -Index that was 57,990.22points fell to about 24,770.52 points in the same period. In fact, the near collapse of the capital market impacted negatively on the manufacturing sector and the Nigeria economy in general.

Al-Faki (2006), noted that despite the fact that Nigeria's capital market had experienced growth as indicated by growth of its performance indicators, the industrial sector (especially the manufacturing sector) growth has not been impressive. The manufacturing sector output has been low and has witnessed continuous decline in capacity utilization in spite of successive government's efforts to promote industrial development in Nigeria. Thus, the overriding consideration in this study is to investigate the impact capital market has had on the manufacturing sector. The focus will be to find out how well the capital market funds have been used to finance the manufacturing sector. More specifically, it examines how the performance of the capital market has impacted on the manufacturing sector between 1970 and 2012.

Research Problem

The capital market performance vis-a-vis its contribution to the growth of the manufacturing sector which is the engine room of economic growth still fall below some of the vibrant economies like Taiwan, South Africa, Malaysia, United Kingdom and United States of America.

It is an established fact that the growth and development of the Nigerian economy depends to a considerable extent on the development of the manufacturing sector particularly the small and medium scale industries in Nigeria and as such its long- term financing through the capital market deserves considerable attention.

The Report of the Vision (2010) Committee on the Nigeria capital market succinctly pointed –out as follows: "The Nigerian capital market is small relative to the economy it is supposed to serve. It is shallow, unsophisticated and uncompetitive as a primary source of long-term business finance.

Indeed, in spite of the intervention from the federal government aimed at revamping and developing the manufacturing sector, the sector is still faced with a lot of challenges, lack of long –term funds, high interest rate, irregular and unstable electricity supply and lack of infrastructure. The Nigerian capital market which ought to provide cheap and long-term funds for the sector is unable to effectively and efficiently discharge its fundamental role of mobilising long term funds for the manufacturing sector.

Arising from the foregoing, this study sets to provide answers to these questions:

(1) What impact has the Nigeria capital market had on the manufacturing sector? Is there any interdependent relationship between the capital market and the performance of the manufacturing sector in Nigeria?

(2) What are the challenges confronting the manufacturing sector and the capital market in Nigerian?

Objectives of the study

The aim of this study is to examine empirically the impact of the capital market on the manufacturing sector in Nigeria.

The specific objectives include:

i. to critically examine the impact of the capital market on the manufacturing sector;
ii. identify the challenges confronting the capital market and the manufacturing firms

Hypotheses

This study is guided by the following hypotheses:

1. There is no significant relationship between capital market and the performance of the manufacturing sector in Nigeria
2. There exist a directional causation between capital market and the performance of the manufacturing sector.

LITERATURE REVIEW

Financial system no doubt impacts positively on industrial growth and development. According to Schumpeter (1932), the services provided by financial intermediaries i.e. savings mobilization, project evaluation, managing skills, monitoring managers and facilitating transactions can help to stimulate technological innovations and economic development. This position was corroborated by Levine and Robert (1993), when they presented cross countries evidence that financial system can promote economic growth and industrial development. Using data from eighty countries, across the world for the period 1960-1989, they discovered that various measures of the level of financial development were strongly associated with real capital GDP growth, the rate of physical capital accumulation and improvement in economic efficiency.

In a study of the role of capital market in the development of Indonesian national economy, Rosul (2002) observed that the capital market is not only important in financing economic growth, it also provides economic stability. He however observed that for the capital market to serve the future needs of any economy (Nigeria not an exception), there should be wide spread distribution of corporate share ownership and companies must offer investors positive stimulus in the form of competitive profit maximization, expanded and guided business networks and sustainable market development through marketing capability..

According to Ojo (1984), the ability to mobilise funds easily and cheaply in the stock exchange market is an incentive for enterprises to expand their operations and diversify into large scale enterprises. Thus, the importance of the stock exchange lies in its ability to sustain projects with long term gestation, which falls within the realm of industrial enterprises. Therefore, capital market is relevant in sustaining industrial growth and development.

Empirical evidence from the World Bank has shown that development of any National economy is a function of the level of development of the capital market. It was however observed that the functional/relationship between industrialization and capital market is more pronounced in developing countries. The reasons for this may not be far-fetched. In developed economies of Europe and America, there exist other notable sources of fund which are not present or active in developing economies. This leaves us with the capital market as the only source of long term fund. For instance, in Nigeria, the ₦25 billion re-capitalisation of banks was financed solely from the capital market and the recapitalisation of the insurance industry is through the same source.

Nyong (1997) develops an aggregate index of capital market development and used it to determine its relationship with long-run economic growth in Nigeria. The study employed a time series data from 1970 to 1994. Four measures of capital market development, the ratio of market capitalization to GDP (in percentage), the ratio of total value of transactions on the main stock exchange to GDP (in percentage), the value of equities transaction relative to GDP and listings were used. The four measures were combined into one overall composite index of capital market development using principal component analysis. A measure of financial market depth (which is the ratio of broad money to stock of money to GDP) was also included as control variable. The result of the study was that capital market development is negatively and significantly correlated with long-run growth in Nigeria.

Ewan et al. (2009) appraise the impact of the capital market efficiency on the economic growth of Nigeria using time series data from 1961 to 2004. They found that the capital market in Nigeria has the potential of growth inducing but it has not contributed meaningfully to the economic growth of Nigeria because of low market capitalization, low absorptive capitalization, illiquidity, misappropriation of funds among others.

Donwa and Odia (2010) examine the impact of the Nigeria capital on her socio-economic development from 1981-2008 and they found out that market capitalization, value of transaction had positive but insignificant impact on gross domestic product (GDP). They asserted that the capital market in Nigeria has the potentials for growth inducing but has not contributed meaningfully to the economic growth of Nigeria.

Okpara (2010) investigates the impact of the capital market performance on the growth of Nigerian economy. The result shows that there exist a long run relationship between the growth of the economy proxy by gross domestic product and the capital market indicators. There exist three significant vectors or three different linear combinations of the capital market indicators that can drift together roughly at the same time with the GDP. The one period lag of the market capitalisation, new issues, value of shares traded and turnover ratio, all impact significantly on the growth of the GDP.

In addition, the results from causality test show that market capitalisation and value of shares traded, each drives real GDP with no reverse or feedback effect. Thus, the granger causality test supports the evidence of unidirectional causal link from capital market to gross domestic product. The economic implication of the finding suggests a need for more focus on the enhancement of the capital market so as to engender greater growth of the economy.

Ofuan (2005), examined capital market impact on industrial growth and development in Nigeria. The outcome of the study provided a mixed result. While government securities and all-share index displayed a non-significant impact on industrial growth, volume of transaction and values of industrial securities were found to be relatively stable. New issues were found to be a major determinant of industrial output.

Olorunfe (2013) examines the manufacturing sector performance for sustainable economic development in Nigeria. The study showed that investment, capacity utilization and import were major determinants of manufacturing performance and concluded that firms should be export oriented.

It is imperative to state here that from the literature review, most empirical works centred on the relationship between capital market and economic growth. However, this research work focus on the capital market and its impacts on the manufacturing sector, which is the engine room of economic development. As the World Bank report of 1985 has revealed that the manufacturing sector is typically the most dynamic component of the industrial sector; It is a yardstick that measures the extent to which these other components have been effectively utilized. Also it is a measure of the level of economic advancement.

RESEARCH METHODLOGY

Research design

Primarily, this research examines the impact of the capital market activities on the manufacturing sector. In order to achieve the objectives, the study adopted quasi- experimental method to investigate the impact of the capital market and the performance of the manufacturing sector between 1970- 2012. Specifically, the study analysed the data to show their trend/relationships and examined the relationship and impact of the independent variables on the dependent variables using the Ordinary Least Square (OLS), Co-integration test of econometric technique.

The Ordinary Least Square method seeks to understand and explain economic phenomenon by identifying possible relationship between or among variables. The co-integration approach corrects anomalies that may affect regression result and provide long-run relationship between or among variables and finally the Granger Causality test shows us the direction of causation of the variables.

Data Required

The data for this study are primarily annual time series from the Nigerian economy. The following variables are considered.

- Index of manufacturing sector 1970 – 2012, Market Capitalization (MCP) 1970 – 2012, Total New Issues (TNI) 1970 – 2012
- Value of Transaction (VRT) 1970 – 2012, Total Listed securities(TL) 1970 – 2012, Exchange Rate (EXR) 1970 – 2012 and
- Real Interest Rate (INT) 1970 – 2012

Source

The data used in this study were mainly time series sourced from secondary data obtained from:

- National Bureau of Statistics (NBS) - Statistical factbook , Securities and Exchange Commission of Nigeria (SEC) – Annual Reports
- Publications of Central Bank of Nigeria (CBN) such as Statistical bulletin, Annual Reports, Statement of Accounts, Economic and Financial Review.
- Nigeria Stock Market Annual Reports/ Publications.

Model Specifications

An economic model is a simplification of the real world in which essential features of an economic relationship, a set of relationship are explained using diagram, words and mathematics. According to Onuchuku and Adoghor (1999), model specification involves the following (a) the determination of the dependent and the explanatory variable, (b) the determination of the apriori theoretical expectation about sign and size of the parameters of the

function, (c) determination of the mathematical form of the model. Therefore, flowing from economic theory and empirical literature, the functional and econometric relationships between the manufacturing sector, and the capital market indices (market capitalization, new issues, value of transaction total listings.) while, Exchange rate and interest rate as checking variables

Given the theoretical relationships between the dependent and independent variables, we then specify the manufacturing sector model as follows:

INMF= F (MCP, TNI, VT, TL, EXR, INT).....3.1

By linearizing the function, we have

The following equations:

$INMF = c_0 + c_1MCP + c_2TNI + c_3VRT + c_4TLS - c_5EXT - c_6INT + U_2$ ---- *(3.2)*

It is pertinent to point-out that both the linear and the log-linear specifications were tried; however the log-linear appeared better in terms of goodness of fit, precision of estimates and a tolerable level of multi-co linearity. Thus, transforming equations 3.5 to 3.8 into aggregate production function -

Yi =AXi U ---------- (3.9)

Where:

Yi = the sector

Xi = the indictors of capital market

&I = operations

U = Error term

Thus, in line with the above

Manufacturing sub –sector econometric model is as followed:

$L_{og}INMF = c_0 + c_{1log}MCP + c_{2log}TNI + c_{3log}VRT + c_{4log}TLS - c_{5log}EXT - c_{6log}INT + U_2$----------. *(3.12)*

Where $c_1, c_2, c_3, c_4 > 0$ c_5 and $c_6 < 0$

INMF = Index of the manufacturing sub-sector
MCP = Market Capitalization
TNI = Total New Issue
VRT = Value of Transaction
TL = Total Listed securities
EXR = Exchange rate
INT = Interest rate

RESULTS AND DISCUSSION OF FINDINGS

Data presentation and Analysis

Table 4.1: Nigeria's, INM, MCP, TNI, VTR, TLS, EXR, and INT (1970-2012)

YEAR	INM (m)	MCP (m)	TNI (m)	VTR (m)	TLS (m)	EXR (%)	INT (%)
1970	24.1	270.5	16.6	16.6	52	0.7143	7
1971	27.6	1674.7	18.1	36.2	60	0.6955	7
1972	29.7	2106.6	27.2	27.2	72	0.6579	7
1973	36.7	2647.1	92.4	92.4	82	0.6579	7
1974	35.5	3363.9	50.7	50.7	96	0.6299	7
1975	43.9	3308.8	63.7	63.7	99	0.6159	6
1976	54.1	4136	111.9	111.9	105	0.6265	6
1977	57.5	4334.6	180	180	112	0.6466	6
1978	65.8	3422.1	189.5	189.7	128	0.606	7
1979	97.3	4651.3	261.9	254.4	172	0.5957	7.5
1980	102.4	4930.5	479	388.7	188	0.5464	7.5
1981	117.3	4997.8	455.2	304.8	194	0.63	7.75
1982	128.6	4025.7	533.4	215	205	0.67	10.3
1983	94.8	5768	448.5	397.9	212	0.72	10
1984	83.4	5514.9	159.8	418.2	213	0.76	12.5
1985	100	6670.7	817.2	319.6	220	0.89	9.3
1986	78.2	6794.8	833	494.4	240	3.76	10.5
1987	130.8	8297.6	450.7	348	244	4.08	17.5
1988	135.2	10020.8	400	137.6	253	4.59	16.5
1989	154.3	12848.6	1629.9	521.6	267	7.39	26.8
1990	162.9	16358.4	9964.5	265.5	295	8.04	25.5
1991	178.1	23125	1870	136	239	9.91	20
1992	182.7	31272.6	3306.3	313.5	251	17.45	29.8
1993	145.5	47436.1	2636.9	402.3	272	22.41	18.3
1994	144.2	663680	2161.7	569.7	276	22	21
1995	136.3	180305.1	4425.6	1838.8	276	81.2	20.1
1996	138.7	281815.8	5858.2	7062.7	276	81.2	19.7
1997	138.5	281887.2	10875.7	11072.7	264	82	13.5
1998	133.1	262517.3	15018.1	13572.3	264	83.8	18.3
1999	137.7	300041.1	12038.5	14027.4	268	94	21.3
2000	138.2	472290	17207.8	28154.6	260	101.7	18
2001	137.7	662561.3	37198.8	57637	261	111.98	18.3
2002	146.3	764975.8	61284	60088.6	258	120.97	24.4
2003	148	1359274	180079.9	120703	265	129.36	20.7
2004	145.7	2112550	195418.4	225820.6	277	133.5	19.2
2005	89.5	2900062	552782	262929.6	288	132.15	17.95
2006	89.6	5120000	707400	470253	294	128.27	17.33
2007	89.7	13294059	1935080	2100000	310	117.97	16.46
2008	91.2	9562970	1509230	4400000	301	132.56	15.26
2009	92.4	7030800	1739349	684717.3	265	149.58	19.55
2010	95.9	9918200	1925471	799911	264	150.66	15.74
2011	93.2	10275.30	1724683	638,930	250	154.27	16.85
2012	106.6	14800.90	195.360	808,991	256	158.5	16.54

Sources: (i) CBN statistical bulletin (Various Issues)(ii)NBS statistical Fact book(Various Issues) and (iii) SEC Annual Abstracts (Various)

Note:

INM-manufacturing output, MCP-market capitalization, TNI-Total new issues, VTR-volume of transaction, TLS-Total listings, EXR-Exchange rate, INT- interest rate. EXR and INT are in % while others are millions.

4.2 Discussion of findings

Table 4.2b: Short Run Result of INMP MCP, TNI, VTR, TLS, EXR and INT (Manufacturing sub-sector model).

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-1.221931	0.453368	-2.695229	0.0106
LN(MCP)	-0.011983	0.024069	-0.497847	0.6216
LN(TNI)	-0.008726	0.022936	-0.380442	0.7059
LN(VTR)	-0.054603	0.025396	-2.150078	0.0383
LN(TLS)	1.128706	0.120682	9.352749	0.0000
LN(EXR)	0.034534	0.044828	0.770372	0.4461
LN(INT)	0.131613	0.161324	0.815828	0.4200
R^2 = 0.90 R^2_{adj} = 0.86 F-stat =54.94 DW = 1.03				

Source: Author's Computation (2014)

The above table shows 90 percent of variation in manufacturing sector is accounted for by the explanatory variables. The regression result is spurious since the coefficient of determination and the F-statistic are high but with low Durbin Watson statistic of 1.03. It will be necessary to carry out stationary test to eliminate the problem of time-series discovered in the data.

Dynamic Regression Analysis

The Dynamic Regression Analysis or the long run analysis is carried out in order to correct pitfalls that may occur in an econometric analysis. Thus, both stationary and co-integration tests were conducted to avoid spurious regression. Basically, testing for unit roots in data always precedes co-integration analysis. In testing for the stationarity of the variables, Augmented Dicky – Fuller (ADF) test was employed to determine the degree of integration of the variable that is how many times a variable is differenced to attain stationarity (Dickey and Fuller 1981).

Unit Root Test Results.

In order to begin the dynamic (long-term) regression analysis, the study begins with the unit root test for the stationarity of the variables in each of the models using the Augmented Dickey Fuller (ADF) since it adjusts properly for autocorrelation.

Table 4.3b: ADF stationary Test Results for the manufacturing-sector model.

Variable	Calculated ADF	ADF critical at 5%	Order of Integration	Remark
At levels				
LN (INMF)	-2.929726	-2.935001	I(0)	Not stationary
LN (MCP)	-1.969914	-2.933158	I(0)	Not stationary
LN(TNI)	-1.787576	-2.933158	I(0)	Not stationary
LN (VTR)	-0.377311	-2.933158	I(0)	Not stationary
LN (TLS)	-5.451062	-2.933158	I(0)	Stationary
LN (EXR)	-0.337201	-2.933158	I(0)	Not stationary
LN (INT)	-1.402206	-2.933158	I(0)	Not stationary
After Differencing				
LN (INMF)	-6.390681	-2.935001	I(1)	Stationary
LN (MCP)	-7.047553	-2.935001	I(1)	Stationary
LN(TNI)	-2.980072	-2.935001	I(1)	Stationary
LN (EXR)	-6.824389	-2.935001	I(1)	Stationary
LN (INT)	-9.358466	-2.935001	I(1)	Stationary

Source: Author's computation (2014)

Co integration Test Results.

Table4.4b: Johansen Co-integration Test for Manufacturing sector Model

Unrestricted Co-integration Rank Test (Trace)				
Hypothesized No. of CE(s)	**Eigenvalue**	**Trace Statistic**	**0.05 Critical Value**	**Prob.****
None *	0.792493	181.0554	125.6154	0.0000
At most 1 *	0.684052	118.1517	95.75366	0.0006
At most 2 *	0.446820	72.06460	69.81889	0.0327
At most 3 *	0.415510	48.38173	47.85613	0.0446
At most 4	0.318157	26.90111	29.79707	0.1041
At most 5	0.160568	11.58288	15.49471	0.1781
At most 6	0.108225	4.581672	13.841466	0.2323
Trace test indicates 4 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 *	0.792493	62.90368	46.23142	0.0004
At most 1 *	0.684052	46.08709	40.07757	0.0094
At most 2	0.446820	23.68287	33.87687	0.4789
At most 3	0.415510	21.48062	27.58434	0.2482
At most 4	0.318157	15.31823	21.13162	0.2672
At most 5	0.160568	7.001212	14.26460	0.4890
At most 6	0.108225	4.581672	13.841466	0.2323
Max-eigenvalue 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				

Source: Author's Computation (2014)

From the in Table 4.4b, the Trace statistic shows four co-integrating equations, the Maximum Eigen statistics captured only two co-integrating equations. We therefore reject the null of no co-integration at the 5 percent level. This satisfies the condition for fixing in a parsimous error correction model (ECM).

Error Correction Mechanism (ECM) Results.

The ECM is the speed of, or degree of adjustment i.e. the rate at which the dependent variable in each of the models adjust to changes in the independent variables. Since a long-run equilibrium relationship has been established, the next step is test for the speed of adjustment using the short-run dynamics of the ECM.

Table 4.5b: Parsimonious Error Correction Manufacturing Sub-sector Model

Dependent Variable: D(LOG(INMF))				
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
C	0.352403	0.070082	5.028464	0.0004
D(LN(INMF(-1)))	0.495673	0.145556	3.405369	0.0059
D(LN(INMF(-2)))	1.195345	0.217140	5.504942	0.0002
D(LN(MCP))	0.114845	0.033916	3.386186	0.0061
D(LN(MCP(-1)))	-0.113558	0.046203	-2.457793	0.0318
D(LN(MCP(-3)))	-0.326510	0.082533	-3.956119	0.0022
D(LN(MCP(-4)))	0.086073	0.050428	1.706827	0.1159
D(LN(TNI))	-0.021449	0.029972	-0.715630	0.4891
D(LN(TNI(-1)))	-0.106617	0.033888	-3.146148	0.0093
D(LN(TNI(-2)))	0.107326	0.041329	2.596890	0.0248
D(LN(TNI(-3)))	-0.275759	0.055342	-4.982828	0.0004
D(LN(VTR))	-0.037990	0.039615	-0.958998	0.3582
D(LN(VTR(-1)))	0.200457	0.050568	3.964098	0.0022
D(LN(VTR(-2)))	-0.192423	0.063491	-3.030690	0.0114
D(LN(VTR(-3)))	0.348844	0.071109	4.905784	0.0005
D(LN(VTR(-4)))	-0.329680	0.060433	-5.455307	0.0002
D(LN(TLS))	0.357358	0.288224	1.239861	0.2408
D(LN(TLS(-2)))	-2.225387	0.529660	-4.201540	0.0015
D(LN(TLS(-3)))	2.836548	0.554249	5.117821	0.0003
D(LN(TLS(-4)))	-2.744960	0.498796	-5.503174	0.0002
D(LN(EXR))	-0.198854	0.090971	-2.185905	0.0513
D(LN(EXR(-1)))	-0.358529	0.115464	-3.105123	0.0100
D(LN(EXR(-2)))	0.338169	0.121493	2.783438	0.0178
D(LN(EXR(-3)))	-0.508858	0.147133	-3.458485	0.0053
D(LN(INT))	-0.437617	0.170103	-2.572656	0.0259
D(LN(INT(-3)))	-0.306843	0.126530	-2.425061	0.0337
ECM(-1)	-1.066129	0.153965	-6.924506	0.0000
R-squared	0.916530	Mean dependent var		0.028936
Adjusted R-squared	0.719238	S.D. dependent var		0.170792
S.E. of regression	0.090497	Akaike info criterion		-1.785631
Sum squared resid	0.090087	Schwarz criterion		-0.622083
Log likelihood	60.92700	F-statistic		4.645546
Durbin-Watson stat	2.909196	Prob(F-statistic)		0.005334

Source: Author's Computation (2014)

From the above parsimonious short run dynamic adjustment model, market capitalization, total new issues, value of transaction, total listed securities, exchange rate and interest rate explained 91.6 percent of changes in manufacturing sector. Hence the coefficient of determination was significantly high and the overall regression was significant at 5%. Importantly, at 2.9, the Durbin- Watson statistics does not suggest any evidence of auto- correlation. The error correction coefficient of (-1.6) is rightly signed and highly significant at 1 percent .

The table 4.5b equally shows that the coefficients of past (lag) MCP, current and past (lag1 &3) TNI, current and past (lag1, 2 and 3), VTR, current and past (lag 2) TLS and past (lag1) EXR were rightly signed while past (lag3) MCP, past (lag3) TNI, past (log1 and lag2), current EXR and past (lag3) were negatively related with manufacturing sector. This means that Capital market activities did not impact significantly on the index of manufacturing-sector in Nigeria during the period of the study. This can be attributed to the inability of local manufacturing to access long term funds from the capital market because of high transaction cost, strict conditionality and limited offerings. In fact, most of the manufacturing firms are not listed on the exchange and the few listed are not traded effectively; thus making difficult it to raise the necessary funds to finance investment. Ideally, as noted by Ojo (1998), the ability to mobilise funds easily and cheaply in the stock exchange market is an incentive for enterprises to expand their operations and diversity into large scale enterprises. Thus, the importance of the stock exchange lies in its ability to sustain projects with long-term gestation, which falls within the realm of industries enterprises.

Accordingly, the inability of the Nigeria capital market to effectively channel long-term funds for the manufacturing sector can be traced to poor system of supervision and regulation, especially in terms of

manipulation of share prices by stockbrokers, share purchase without funds to back it up, non-remittance of share proceeds to the selling clients, limited range of securities etc.

Table 4.6b: Granger Causality Test for Manufacturing Sub sector Model

Lags: 1			
Null Hypothesis:	**Obs**	**F-Statistic**	**Probability**
LOG(MCP) does not Granger Cause LOG(INMF)	42	1.31170	0.25907
LOG(INMF) does not Granger Cause LOG(MCP)		0.65626	0.42280
LOG(TNI) does not Granger Cause LOG(INMF)	42	0.58042	0.45073
LOG(INMF) does not Granger Cause LOG(TNI)		1.21715	0.27668
LOG(VTR) does not Granger Cause LOG(INMF)	42	0.61560	0.43743
LOG(INMF) does not Granger Cause LOG(VTR)		0.08147	0.77682
LOG(TLS) does not Granger Cause LOG(INMF)	42	0.62270	0.43482
LOG(INMF) does not Granger Cause LOG(TLS)		2.38291	0.13075
LOG(EXR) does not Granger Cause LOG(INMF)	42	0.25282	0.61792
LOG(INMF) does not Granger Cause LOG(EXR)		6.28707	0.01644
LOG(INT) does not Granger Cause LOG(INMF)	42	0.11260	0.73900
LOG(INMF) does not Granger Cause LOG(INT)		4.96101	0.03177

Source: Author's Computation (2014)

Table 4.6b shows the Granger causality test for the manufacturing sector model. A close look at the table suggests that there is a unit directional relationship between EXR and INMF and also between INT and INMF. This means that INM Granger causes EXR. Also, INM granger causes INT but without a feedback response.

RECOMMENDATIONS AND CONCLUSION

In order to make the Nigerian Capital market contribute significantly to the growth of the manufacturing sector and the economy in general, the following suggestions are put forward:

(A) The regulators and operators in the Nigerian capital market must necessarily expand the market offerings to include products such as fixed income securities, hedging instrument, such as futures and other derivatives must be promoted as well as securities lending and collectives' investment schemes.

(B) It is imperatives to mention that new listings are critical to the development of the Nigerian Stock market given that it is one of the two ways companies can raise long-term capital. Indeed, new listings are even more critical in restoring investor confidence as they are clear sign that the stock market is recovering. To this end, there is the urgent need to woo foreign and local companies to list in Nigeria stock market through tax holiday, reduction in transactions cost and other incentives.

(C) Foreign Exchange volatility, high interest rate and unstable electricity have negative impacts on manufacturing output and the economy in general. Therefore, the political and monetary authorities must of necessity ensure stable supply of electricity, favourable and stable exchange rate, and low interest rate in the country if the vision of transforming the economy will be achieved.

Conclusion

This study investigated the impact of the capital market on the performance of the Nigeria,"s manufacturing sector from1970-2012. Using the Ordinary Least Square (OLS), Co-integration/Error correction mechanism and Granger causality test, the findings reveal that the capital market has not significantly impacted the Nigerian

manufacturing sector. The inability of the capital market to effectively and efficiently mobilise resources for the growth and the development of the manufacturing sector is not unconnected with the arrays of challenges confronting it e.g. weak corporate governance, sharp practices by capital market operators, high fees and interest rate that discourage investors and volatility of foreign exchange.

Based on the findings in this research, capital market (if properly managed) will promote Nigeria's manufacturing sector output and such boast the quest for inclusive economic growth and Job creation. The study conclude by urging the government and stakeholders to leverage the capital market so as to fuel entrepreneurship, support the real sector, and create job which bring about the desired multiplier effects for sustainable economic growth.

REFERENCES

Ajayi & Akpan (2007). Capital market Dynamics in Nigeria: *Structure, Transaction cost and Efficiency 1980-2006*. Research and Statistic department of Central Bank.

Ajie H.A, Ezi C. T & Ewubara D. B (2006) *Financial institutions, Market and contemporary issues.* Pearl Publication, Port Harcourt

Al-Faki, M. (2006). The Nigerian Capital Market and Socio-Economic Development. Paper presented at the *4th Distinguished Faculty of Social Science Public Lecture*, University of Benin, 26 July, pp. 9-16

Alile H. I& Anao, R,A (1990).*The Nigerian stock market in operation.* Jeromeelaiho & Associates, Lagos

Alile H.I (1996). The Nigerian Stock Exchange: *Historical perspective, operations and contributions to Economic Development, Central bank of Nigerian Bullion*, 2: 65-69

Alile H.I (2002). Establishing a Stock Market – the Nigerian Experience. *Paper presented at the Conference on promoting and Development Capital in Africa* Abuja, No 11-13.

Anyanwu J.C (1993). *Monetary Economics Theory*, *Policy and Institutions*. Onitsha: Hybrid Publishers Ltd., pp. 247-274.

Anyanwu J.C (1998). Stock Market Development and *Nigerian Economic Growth, Nigerian Financial Review*, 7(2): 6-13.

Ariyo A, Adelegan O. (2005). Assessing the impact of Capital Market Reforms in Nigeria: An increment Approach. *Paper presented at the 46th annual conference of the Nigeria Economic Society in Lagos in* August 2005.

Central Bank of Nigeria (CBN) *Statistical Bulletins* of 2005, 2006 and 2008, Abuja: Central Bank of Nigeria Publication

Demirguc-Kunt, A and R. Levine (1996): Stock market development and financial intermediaries: Stylized facts, *The World Bank Economic Review*, 10:2 pp 291 -321

Donwa P. & Odia J (2010): An Empirical Analysis of the impact of Nigerian Capital Market on Her Socio – economic Development *Journal of Social Science ,24:2, pp135-142*

*E*do S.E (1995). An Estimation of a model of long-term securities Investment in Nigeria. *Nigeria Economic and Financial Review*, 12: 45-53

Ewah S.O.E, Esang A.E, Bassey J.U (2009). Appraisal of Capital market efficiency on Economic growth in Nigeria. *International Journal of Business and Management,* December, pp. 219-225

Gbosi A. N (2009). *Global economic meltdown and the Nigerian financial system,* Harvey Publications Company. Port Harcourt.

Levine R. and S Zervos (1998): Stock markets, banks and economic growth, *American Economic Review*, 88:3, pp 537-558

Kwode E. I (2014) Capital market and Industrial development in Nigeria . Economic journal, 2014

Nigerian Stock Exchange (1990). *The Nigerian Stock Exchange fact Book,* Walshud Publishers, Lagos.

Nigerian Stock Exchange (NSE) fact book for 2004-2009. Lagos: *The Nigerian Stock Exchange.*

*N*wankwo G.O (1991). *Money and Capital Markets in Nigeria today.* Lagos: University of Lagos Press.

Nyong M.O (1997). Capital Market Development and long run Economic growth: Theory, Evidence and Analysis, *First Bank Review*, December pp. 13-38.

Obadan M.I (1998). Capital Market and Nigeria's economic Development. *Presidential address presented at the 1day seminar of the Nigerian Economic Society at the Institute of International Affairs* on 21st January 1987.

Olurunfe S (2013) Manufacturing performance in Nigeria: Implication for sustainable development. *Asian Economic and Financial review 3 (9) 1195- 1213*

Ojo, O.O. (1984): Financial intermediation and growth, *Inaugural lecture series, 68*, University of Ife press. Pp 2-16

Okaro S.C (2002). The Nigerian Stock Exchange and the Challenge of Economic Growth & Development in Nigeria. *The Accountant.* Vol 35 no.2, April

Okpara G.C. 2006. Capital Market in the Development of Nigerian Economy: An Empirical Analysis. *Nigeria*

Journal of Economic and Financial Research. Vol. No.1

Olowe RA 1998. *Stock Splits and the Efficiency of the Nigerian Stock Market,*

Omotor, D.G (2007) " Financial Development and Economic Growth: Empirical Evidence from Nigeria" In the Nigerian *Journal of Economic and Social Studies of the Nigeria Economic society*, Volume 49, No2, July 2007.

Onuchuku.O and Adoghor.G. (1999*). Econometrics, An Introduction to ordinary least Square Regression analysis,* Owerri Spring field Publishers.

Osai-Brown 2007. Economic Melt Down http://www.articlesbase.com /investing-

Osaze B.E (2000). *The Nigerian Capital Market in the African and Global Financial System*. Benin City: Bofic Consults Group Limited.

Osisioma C.B (1983). The Nigerian Stock Exchange: A Challenge of Efficiency *The Financier* , Vol 15 , No 3 , March, PP.6 – 10

Oyefusi S. A & Mogbolu R. O (2003) " Nigeria and the Structural Adjustment Programme " Mindex Publishing , Benin city .

Oyefusi S.A Mogbolu R.O (2003). Nigeria and Structural Adjustment programme. In: MA Iyoha, CO Itsede (EDs.): *Nigeria Economy Structure, Growth and Development*, Benin City: Mindex Publishing pp. 387-402

Report of the Vision 2010 Committee on the Nigerian Capital market

Schumpter, J.A (1932): *The theory of economic development*, Translated by Redvers Opie Cambridge, Mass. Harvard University Press. Pp 50-102

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