

Financial Market Funds in Nigeria's Economic Progress: Evidence and Insights From the Manufacturing Sector

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Abstract

Given the need for the financial markets to continuously provide both long and short-term funds required by the manufacturing sector in an economy, this study seeks to ascertain the extent to which Nigeria's manufacturing sector is influenced by the classified financial market funds over the period 1981 to 2015. Secondary data was sourced from the Statistical Bulletin of the Central Bank of Nigeria and processed through the employment of statistical techniques, which include Multiple Regression, Stationarity, Johansen Co-integration, Error Correction and Granger Causality. The results provide evidence of valuable short and long-run interrelationships between contributions of the manufacturing sector to Nigeria's gross domestic product and three out of the four components of capital and money market funds employed in the study. Further, the Granger Causality results indicate two (2 no) unidirectional causalities which flow from manufacturing sector's output to (i) bank credits to the private sector and (ii) government securities. The study concludes that (i) most of the financial market components largely operate independent of the Nigeria's manufacturing sector, and (ii) where there is any significant relationship at all, the financial market components largely tend to be dependent on the manufacturing sectors operations. On the whole, it is recommended that (i) deposit money banks should set aside a minimum of 20 percent of their loanable funds for on-lending to the manufacturing sector which scheme should be wholly guaranteed by the Central Bank of Nigeria in order to boost the operations of Nigeria's manufacturing sector, (ii) the state should invest more in infrastructural facilities development in order to reduce cost of production in Nigeria's manufacturing sector. These will hopefully enhance the contribution of the sector to Nigeria's GDP.

Keywords: Financial Market Funds, Manufacturing Output, Gross Domestic Product.

1. INTRODUCTION

The manufacturing sector plays a significant role in a modern economy as it is central to the issue of national economic transformation. In this respect, Toby and Peterside (2014) observe that Nigeria's manufacturing sector contributes to export expansion, foreign exchange earnings, increased employment, improved per capita income and general economic welfare. Further, Ogar *et al.*, (2014) argue that the manufacturing sector while tending to dominate other sectors in respect of contribution to gross domestic product equally creates the most significant linkage effects among the prevailing sectors. From the perspective of public sector financial management, funding of basic infrastructural facilities like roads, bridges, security, water, power etc. is very crucial for effective operations of various economic sectors. Consequently, such heavy capital overhead expenditures are undertaken by the government because of market failure. In this direction, the government strives to continuously issue securities that will facilitate the funding of those infrastructural facilities that will directly or indirectly boost the operations of the economy including the manufacturing sector. Further, Nnamdi (2015) argues that financial intermediation process provides a spring board for the capital market and money market institutions to function and competently influence the operations of the manufacturing sector through provision of their long and short term funding requirements.

In a related earlier study, Ogun and Iyoha (2005) observe the increasing influence of the capital market in the developing economies. The study asserts the capital market acts as the provider of increased range of long term funds thereby, enhancing the operations of quoted organizations while the associated stock markets function to facilitate the liquidity of securities listed therein. Irrespective of this evidence, Adeniran and Obasan (2010) as well as Guiso *et al.*, (2004) on the other hand, observe that policy reversals and government neglect of the agricultural sector in Nigeria have significantly contributed to the declining performance of the nation's manufacturing sector over the years.

This study contends that literature is still growing on the relative influence of various financial market fund components on the growth of Nigeria's manufacturing sector. While Nnamdi (2015) evaluates the influences of various financial market funds on Nigeria's economic growth, Nwosa and Oseni (2013) specifically examine the

influence of bank credits on the performance of the Manufacturing sector within Nigeria. In this direction, Ogar *et al.*, (2014) contend that the manufacturing sector has a significant capacity to transform economies through enhanced productivity, export enlargement, increased foreign exchange earnings, as well as creation and/or enhancement of employment opportunities for the populace.

Given this premise and in the light of the limited scope of previous studies reviewed herein, it becomes expedient to evaluate the extent to which the various funding components of the enlarged financial market (capital and money markets) do influence output in Nigeria's manufacturing sector. Consequently, an evaluation of the above gaps constitute the core problem of this study. In this direction, this study generally aims at examining the prevailing interrelationships between the output of Nigeria's manufacturing sector and the various funding components of the financial markets in both short and long terms. Further, it will explore the extent to which these various components do promote and/or support the operations of Nigeria's manufacturing sector in the growth process. The results are hoped to be beneficial to managers of quoted manufacturing firms so as to equip them with objective choices of the financial market fund components which are most valuable for their operations.

While an overview has been attempted above, the rest of this study is rendered as follows; Section 2 provides the theoretical framework and review of previous studies while section 3 provides the methodology adopted for the study. In that perspective, section 4 presents the results and analyses that follow, while section 5 provides the discussions, conclusions and recommendations.

2. THEORETICAL FRAMEWORK AND REVIEW OF PREVIOUS STUDIES:

The theoretical and empirical underpinnings of this study are discussed under the following sub-headings:

2.1 Theoretical Link Between Financial Markets and the Productive Sectors of the Economy:

Nnamdi (2015) observes that financial markets fundamentally function to facilitate the financial intermediation process in order to guarantee efficient financial resource mobilization and allocation to various sectors of the economy inclusive of the manufacturing sector. Earlier studies including Schumpeter (1934), Goldsmith (1969), McKinnon (1973), Shaw (1973) and Bencivenga and Smith (1991) strongly provided platforms for formalization of financial intermediation theory. They provide the mechanism through which the productive sectors of the economy enjoy the leverage provided by the financial markets. Either in the demand-following, supply leading or contemporaneous relationship forms of these theories, the essential fact remains that the financial markets do provide the required funds needed by the productive sector. Even when the financial markets are responding to the needs of enterprise by virtue of servicing already established ventures (demand following) or acting in a proactive manner to induce/initiate enterprise (supply-leading), as well as functioning interdependently with enterprise in the process of growth (contemporaneous manner), the basic fact remains that they function to provide the required funds for growth of enterprise.

2.2. Review of Previous Studies

Nnamdi (2015) evaluates the nature of interrelationships which prevail between financial market funds and economic growth in Nigeria over the period 1981 to 2011. The study employs techniques such as the Augmented Dickey - Fuller (ADF), Johansen's Co-integration, Error Correction Model (ECM) and Granger Causality tests. The tests were executed on employment of secondary data. The results indicate valuable long-run relationships between Nigeria's GDP and the study's financial market components. These include equity, bank credits to the private sector, bonds and government securities. In a recent study, Bernstein (2016) evaluates the interrelationship between finance and Kenya's manufacturing sector's contribution to gross domestic product. The results indicate that on comparative basis, Kenya's manufacturing sector lacks behind the service sector in terms of contribution to the gross domestic product.

Udoka (2015) examines the relationship between bank loans and advances and output of the agricultural sector in Nigeria over the period of 1985 to 2012. Employment of Ordinary least squares regression technique provides evidence to confirm a significant short term relationship between disbursed bank credits and contribution of agricultural sector to Nigeria's gross domestic product. Toby and Peterside (2014) examine the financing role of banks with respect to agriculture and manufacturing sectors in Nigeria from 1981 to 2010. Analysis of secondary data obtained from Central Bank of Nigeria's Statistical Bulletin provide compelling evidence to conclude that Nigerian banks significantly prefer to finance the manufacturing sector relative to agricultural sector.

Ijaiya and Abudulraheen (2000) study the nature of empirical relationship between bank credits and agricultural outputs in Pakistan. The results demonstrate the prevalence of a valuable relationship between bank credit and the contribution of agricultural sector to the GDP. In a related development, Fosu (2002) demonstrates that investments in modern technologies in the agricultural sector in Morocco and North West Bangladesh significantly raised contributions of the agricultural sector to GDP. Basset *et al.*, (2014) examine the effect of

bank credits on the productive activities of small and medium enterprises in Nigeria over the period 1992 to 2011. The results demonstrate that bank credits to small and medium enterprises in the manufacturing sector significantly advanced their contributions to Nigeria's gross domestic product.

Acha (2012) finds that a valuable relationship exists between non-bank financial institutions' credits and the output of Nigeria's manufacturing sector. This finding however, conflicts with the position of Izhar and Tariq (2009) who contend that in India, institutional credits do not significantly influence sectoral outputs. In another development, Medyawati et al., (2011) show that, although banking operations are highly correlated with the growth of both manufacturing and agricultural sectors, the contributions of these sectors to Indonesia's GDP have however, remained relatively small.

Ikenna (2012) employs Autoregressive Distributed Lag (ARDL) technique on time series data over the period 1970 to 2009 to evaluate the effect of financial deregulation on productivity of Nigeria's real sector. The results show that deregulation measures in Nigeria adversely affected credits to the productive sectors of Nigeria's economy. Onoja and Agumagu (2009), study the influence of Federal Government's intervention funds on productivity of the agricultural sector between 1999 and 2006. The results remain inconclusive. On the other hand, Akinyele and Osinibu (2006) find that high cost of bank lending to the agricultural sector tends to constrain the sectors working capital. In a later study, Obamuyi *et al.*, (2012) demonstrate that manufacturing capacity utilization and bank lending rates constitute significant determinants of manufacturing sector's output in Nigeria.

3. MATERIALS AND METHODS

This section is divided into subsections as presented below in order to aid clarity of presentation:

3.1 Data and Variable Descriptions:

The data collected for this study consists of end of year values of manufacturing sector's output as represented by its contribution to Nigeria's gross domestic product (GDP). Others are financial market fund components embracing outstanding government securities, bonds, equity and bank credits to the private sector of Nigeria's economy. They were all sourced from the Statistical Bulletin of the Central Bank of Nigeria shown in table 1 below;

Table 1: Manufacturing Sector's Output (MNO), Outstanding Government Securities (GSEC), Bonds (BOND), Equity (EQTY) and Bank Credits to the Private Sector (CPS) in Nigeria, 1981 – 2015 (N'b)

Year	MNO	GSEC	BOND	EQTY	CPS
1981	15,258.00	3.1	0	1.9	9.7
1982	14,985.08	3	1	1	11.6
1983	13,849.73	3.5	0	2.2	12.2
1984	13,779.26	2.9	0.2	2.4	12.9
1985	14,953.91	3.5	0.4	2.7	14.1
1986	15,237.99	2.7	0.4	3.7	18.3
1987	15,263.93	4.2	0.0	4.0	21.9
1988	16,215.37	4.5	0.4	5.1	25.5
1989	17,294.68	4.2	0.6	8.0	29.6
1990	19,305.63	3.4	0.8	12.1	35.4
1991	19,199.06	3.3	1.4	18.4	42.1
1992	19,620.19	3.2	1.8	26.2	80.0
1993	19,927.99	3.6	2.1	41.8	95.5
1994	19,979.12	3.2	2.1	61.0	151.0
1995	20,353.20	3.2	2.1	175.1	211.4
1996	21,177.92	3.0	3.0	279.8	260.6
1997	21,789.10	2.8	2.8	276.3	319.5
1998	22,332.87	2.7	3.1	256.8	372.6
1999	22,449.41	2.4	3.1	294.5	455.2
2000	23,688.28	2.1	4.1	466.1	596.0
2001	25,267.54	8.3	5.8	648.4	855.0
2002	28,957.71	12.7	3.5	748.7	955.8
2003	31,709.45	25.2	8.4	1325.7	1,212.0
2004	35,020.55	178.1	7.9	1926.5	1,534.4
2005	37,474.95	365.47	9.83	2523.5	2,007.4
2006	39,995.50	902.99	3.49	4227.134	2,650.8
2007	42,922.41	2976.58	16.98	10180.29	5,056.7
2008	46,012.52	2558.96	16.41	6957.454	8,059.5
2009	49,856.10	2030.76	10.05	4989.39	10,219.3
2010	54,612.26	1939.27	56.37	7913.752	9,830.3
2011	57,511.04	2400.465	1341.292	6532.58	14,183.6
2012	59,929.89	4425.048	1400.434	8974.449	15,151.8
2013	63,218.72	4456.895	1393.998	13226	16191.47
2014	67,152.79	5247.963	144.958	11477.66	18123.649
2015	69,023.93	6942.874	205.89	9850.61	18719.263

Source: Central Bank of Nigeria: Statistical Bulletin (2012, 2014 and 2016).

Manufacturing sector's contribution to gross domestic product is employed as the dependent variable since it captures largely, the market values of all manufactured goods and services over an accounting period. The government periodically issues long debt instruments through the capital market which are employed to finance infrastructural facilities like roads, bridges, power etc. These are largely captured by government securities in the capital market since infrastructural facilities are necessary for industrial growth in any nation. Bond and equity represent the private sector (quoted companies) capital funding components which command significant proportions in the Nigerian capital market.

Further, significantly representative of money market funding sources, this study employs bank credits allocated to the private sector following Crowley (2008) and Levine and Zervous (1998). These studies argue substantively that credit allocated to the private sector of the economy are more productive than those allocated to the government sector (public) because they are allocated under more stringent credit conditions inclusive of prices. In this direction, private sector credits are significantly allocated to more efficient end users who have the capacity to borrow at optimal prices, utilize and also, return the funds to the owners timely. In this sense, private sector fund allocation tends to be highly stringent and significantly tends to be less associated with issues of moral hazards.

3.2. Specification of Analytical Tools and Tests.

The key aim of this study is to evaluate the nature of inter-relationships prevailing among financial market fund

components and the manufacturing sector output in Nigeria. For better appreciation, this subsection is further considered as follows:

3.2.1 Stationarity Tests:

The stationarity properties of the time series data need to be ascertained through unit root tests to ensure that their employment will not lead to spurious estimates. In this direction, according to Brooks (2009), the Augmented Dickey Fuller (ADF) test is employed. The decision is to reject the null hypothesis if the ADF test statistic is absolutely higher than the Mackinnon's Critical Values at 1%, 5% and 10% levels of significance.

3.2.2 Multiple Regression Test (Ordinary Least Squares)

The multiple regression test is employed to capture the short-run estimates of the predictive regression equation. Accordingly, the significance of the resultant t-statistics of the explanatory variables is expected to be at least 0.05, for the null hypothesis of no significance to be rejected.

3.2.3 Johansens's Co-integration Test:

The Johansen's Co-integration test is utilized to ascertain the extent of long run equilibrium relationship prevailing among the set of study variables (Awe, 2012).

The decision rule is based on significance at 0.05 level, of the co-integrating equation.

3.2.4 Error Correction Estimates.

Brooks (2009) observes that the error correction estimates tend to evaluate the long run sensitivities of the dependent variable to each of the explanatory variables. Moreover, it measures the speed with which the dependent variable adjusts back to long run equilibrium after short run distortions in the explanatory variables.

3.2.5 Granger Causality

Following Brooks (2009) and Maddala (2007), the Pair-Wise-Granger Causality test serves to determine the extent to which changes in a given set of explanatory variables tend to promote and/or support variations in the dependent variable. It furthers, ascertains the extent to which inclusion of their lagged values can improve the explanation vice versa. In this sense, any time series Y is said to be Granger Caused by another time series X, if X assists in explaining Y in a regression framework and if the addition of lagged or previous values of X enhances the explanation of Y. In this circumstance, it implies that the coefficients of the lagged X values are found statistically significant and vice versa. Additionally, Maddala (2007) and Brooks (2009) formulate the following expressions for Causality analysis,

$$\gamma t = \beta_0 + \sum_{i=k}^n \beta_i \gamma t - i + \sum_{i=k}^n \beta_i X_t - i + \mu_t \quad (1)$$

$$X_t = \alpha_0 + \sum_{i=k}^n \alpha_i \gamma t - i + \sum_{i=k}^n \alpha_i X_t - i + V_t \quad (2)$$

Where Y_t and X_t are the time series, being examined μ_t and V_t are their white noise errors. The preferred lag length specified is 2

3.3 Model specification

Given the fundamental fact that employment of funds from capital market sources will provide for long term funding of the manufacturing sector, while short term bank funds captured by bank credits to the private sector would enhance working capital financing, the general form of the model is represented as;

$$MNO_t = f(\text{GSEC, EQTY, CPS, BND}) \quad (3)$$

Where,

MNO = Manufacturing Sector contribution to GDP

GSEC = Outstanding Government Securities

EQTY = Outstanding Equity

CPS = Bank Credits to the private sector

BND = Outstanding Bonds

For estimation purposes, equation (3) is re-written as;

$$MNO = \beta_0 + \beta_1 \text{GSEC} + \beta_2 \text{EQTY} + \beta_3 \text{CPS} + \beta_4 \text{BND} + \mu_i \quad (4)$$

Where,

β_0 = Constant Term

$\beta_1, \beta_2, \beta_3,$ and β_4 = Coefficient of GSEC, EQTY, CPS and BND

μ_i = Error or Stochastic term

3.4 Apriori Expectations:

Theoretically, increased provision of the funds from the capital and money market sources will directly enhance the productive capacity of the manufacturing sector. Accordingly, we expect a sensitivity greater than zero from the manufacturing sector output in response to increases in any of the funding components. Following this, the apriori expectations are summarized as follows:

$$\beta_1 > 0, \beta_2 > 0, \beta_3 > 0, \beta_4 > 0$$

4. PRESENTATION OF RESULTS

The results of the tests executed are presented below as follows;

4.1 Presentation of Stationarity (Unit Root) Test Results:

The output of the stationarity tests for all the study variables is presented in table 2 below.

Table 2: Results of Stationarity (Unit Root) Tests:

Differenced Variable	ADF Test statistic	Mackinnon's Critical Values at 1%, 5% & 10%			Order of Integration	Prob.
		1%	5%	10%		
D(MNO)	-4.312888	-4.262735	-3.552973	-3.209642	I(1)	0.0218
D(GSEC)	-4.047636	-3.646342	-2.954021	-2.615817	I(1)	0.0038
D(BOND)	-4.516841	-2.656915	-1.954414	-1.609329	I(1)	0.0096
D(EQTY)	-6.073526	-3.653730	-2.957110	-2.617434	I(1)	0.0000
D(CPS)	-5.328908	-3.724070	-2.986225	-2.632604	I(1)	0.0002

Note: D(MNO), D(GSEC), D(BOND), D(EQTY) and D(CPS) represent the differenced values of Manufacturing Sector Output (MNO), Outstanding Government Securities (GSEC), Bonds (BOND), Equities (EQTY) and Bank Credits to the Private Sector (CPS) in Nigeria over the stipulated study period.

Source: Extracts from E-Views 9 Output.

The stationarity test output (unit root) as seen in table 2 above shows that all the variables are stationary at first difference. Further, for each variable, the absolute value of the ADF test statistic is greater than all the corresponding Mackinnon's critical values at the 1, 5 and 10 percent significance levels. All the variables are therefore, said to be integrated of order one i.e. I(1). They are consequently ascertained as suitable for employment in further analysis without any significant spurious effects.

4.2 Multiple Regression Test Results (OLS):

The results of multiple regressions test (short run) for all the time series variables employed in this study are presented in table 3 below:

Table 3: Results of Multiple Regression Test: (Ordinary Least Squares)

Dependent Variable: MNO

Method: Least Squares

Sample: 1981 2015

Included observations: 35

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	19322.36	899.2036	21.48830	0.0000
GSEC	-4.131433	1.634481	-2.527673	0.0170
BOND	-5.435851	2.747470	-1.978494	0.0571
EQTY	2.265517	0.523485	4.327759	0.0002
CPS	2.786382	0.513917	5.421852	0.0000
R-squared	0.846550	Mean dependent var		30723.60
Adjusted R-squared	0.839423	S.D. dependent var		17308.63
F-statistic	132.8168	Durbin-Watson stat		2.100635
Prob(F-statistic)	0.000000			

Source: Extracts from E-Views 9 Output.

Table 3 above shows the nature of short run relationship between the variables of study. The results indicate that variations in the financial market funding elements account for 84.65% of the variations in the output of Nigeria's manufacturing sector. Further, the probability of (f-statistics) value is 0.0000, indicating a good line of fit. Further, the Durbin-Watson Statistics value of 2.100635 is within acceptable range and implicates no significant autocorrelation. The coefficients of all explanatory variables except for BOND are significant at 0.05 level in the short run.

4.3 Presentation of Johansen's Co-integration Tests Results:

The results of Johansen's Co-integration test for all the time series variables of this study are presented in table 4 below;

Table 4: Results of Johansen's Co-integration Test
 Unrestricted Co-integration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.996049	417.7879	69.81889	0.0001
At most 1 *	0.986190	240.7074	47.85613	0.0001
At most 2 *	0.942117	103.6711	29.79707	0.0000
At most 3	0.305158	12.49237	15.49471	0.1348
At most 4	0.025973	0.842119	3.841466	0.3588

Trace test indicates 3 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

Unrestricted Co-integration Rank Test (Maximum Eigenvalue)

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None *	0.996049	177.0806	33.87687	0.0001
At most 1 *	0.986190	137.0363	27.58434	0.0000
At most 2 *	0.942117	91.17874	21.13162	0.0000
At most 3	0.305158	11.65025	14.26460	0.1245
At most 4	0.025973	0.842119	3.841466	0.3588

Max-eigenvalue test indicates 3 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

Source: Extracts from *E-Views 9 Output*.

The trace and Maximum eigenvalues show the existence of 3 co-integrating equations as proof of the existence of significant long run relationship among the study variables. This provides compelling evidence to assert that there prevails a significant long run relationship among Manufacturing sector's output and the set of financial market fund elements in Nigeria.

4.4 Presentation of Error Correction Model Estimates:

The output of the Error Correction Model (ECM) estimates is presented in table 5 below;

Table 5: Error Correction Model Estimates (ECM):

Dependent Variable: D(MNO)

Method: Least Squares

Sample (adjusted): 1982 2015

Included observations: 34 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	20496.05	356.1933	57.54193	0.0000
D(GSEC)	-1.700410	0.644700	-2.637522	0.0135
D(BOND)	-7.503775	1.053559	-7.122312	0.0000
D(EQTY)	0.013749	0.260103	0.052859	0.9582
D(CPS)	3.621914	0.205278	17.64392	0.0000
ECM(-1)	-0.250372	0.094645	13.21125	0.0000
R-squared	0.892670	Mean dependent var		31178.47
Adjusted R-squared	0.891361	S.D. dependent var		17355.28
F-statistic	758.4123	Durbin-Watson stat		1.956418
Prob(F-statistic)	0.000000			

Source: Extracts from E-Views 9 Output.

From table 5 above, it can be observed that in the long run, all the predictor variables jointly account for 89.27 percent of variations in manufacturing output (MNO). This lends credence to the suitability of the model and provides evidence that financial market funds in Nigeria substantially account for the growth of Nigeria's manufacturing output. The ECM has the anticipated negative sign. Its coefficient of 0.250372 indicates manufacturing sector's speed of adjustment back to equilibrium after short run distortions in the financing variables. The long run coefficients of all the explanatory variables except for equity are significant at 0.05 level.

4.5 Presentation of Granger Causality Test Results:

The results of the Pair-wise Granger Causality tests are presented in table 6 below:

Table 6: Results of Pair-Wise Granger Causality Tests:

Pairwise Granger Causality Tests

Sample: 1981 2015

Lags: 2

Null Hypothesis:	Obs	F-Statistic	Prob.
D(GSEC) does not Granger Cause D(MNO)	32	1.88016	0.1720
D(MNO) does not Granger Cause D(GSEC)		4.17242	0.0264
D(BOND) does not Granger Cause D(MNO)	32	0.78985	0.4641
D(MNO) does not Granger Cause D(BOND)		0.38183	0.6862
D(EQTY) does not Granger Cause D(MNO)	32	0.16550	0.8483
D(MNO) does not Granger Cause D(EQTY)		2.82025	0.0772
D(CPS) does not Granger Cause D(MNO)	32	2.49181	0.1016
D(MNO) does not Granger Cause D(CPS)		3.98763	0.0304

Source: Extracts from E-Views 9 Output.

The results of Granger Causality test as shown in table 6 above provide evidence of two significant unidirectional causal relationships. These are between manufacturing sector output and government securities as well as bank credits to the private sector. On the whole, causality flows from manufacturing sector's output to the financing ends (government security and bank credits to the private sector). No significant bi-directional relationships are observed.

Schumpeterian independent hypothesis prevails between Nigeria's manufacturing sector and each of capital market bond and equity markets as they tend to function independent of each other. The manufacturing sector obviously relies more on short term bank credits for working capital purposes. It explains the demand following posture of banks as they do not significantly fund long term credits for capital/equipment financing which would

have provided a supply leading role.

On the part of government securities, the results show that they are supporting manufacturing operations. To this extent, government's huge expenditure on infrastructural developments like roads, bridges, electricity, security etc. appear as a response to investments in the manufacturing sector of the economy, hence a demand-following posture.

5. DISCUSSIONS, CONCLUSIONS AND POLICY RECOMMENDATIONS

The results of this study largely confirm the valuable nature of financial market funding elements with respect to Nigeria's manufacturing sector as well as the fact that they have gained prominence. The short run evaluation shows that only bond financing slightly missed our preferred 0.05 significance level by achieving 0.0571. On the other hand, the long run analysis (ECM) shows that the equity market largely fails to relate significantly to the growth of the manufacturing sector. It provides significant evidence to confirm the wide prevalence of shareholder jealousy in Nigerian quoted firms. This tendency forces Nigerian companies to rely heavily on external funding. They tend to deemphasize admission of new members through offer for subscription etc., for fear of dilution of ownership.

Irrespective of the roles of the long term funding components, the Granger Causality tests provide substantial facts to assert the importance of bank credits in the Nigerian manufacturing sector's operations. However, the results still largely indicate that Nigerian banks through their operations largely function to depend on the manufacturing sector instead of promoting its operations. In this context, it becomes expedient to assert that Nigerian banks as presently constituted are still largely dependent on the operational activities of the manufacturing sector. In this wise, Nigerian banks still function to service as opposed to promoting the manufacturing sector.

In the light of the above it is concluded that;

i) Many sections of Nigeria's financial market as presently constituted, still significantly function independent of Nigeria's manufacturing sector. (ii) Where there is any significant relationship, the financial market components are largely dependent on the operations of Nigeria's manufacturing sector and only function to service same in a parasitic manner.

In view of the above conclusions, this study recommends as follows;

(i) Deposit money banks should set aside a minimum of 20 percent of their loanable funds for on-lending to the manufacturing sector which scheme should be wholly guaranteed by the Central Bank of Nigeria in order to boost the operations of Nigeria's manufacturing sector.

(ii) The state should enhance provision of infrastructure through issuance of government securities. This emanates from the fact that infrastructural development tends to reduce cost of production, improves corporate performance thereby, adding to sectoral output growth.

(iii) Equity funds appear to respond more to manufacturing sector's performance in the short-run since it is less expensive than debt. To this extent manufacturing sector organizations in Nigeria should solicit for more public subscription to their shares while the Securities and Exchange Commission should review downwards, the associated and approved costs for such additional floatation in order to reduce cost of funds for the manufacturing sector.

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