EFFECT OF TRADE LIBERALIZATION ON MANUFACTURING SECTOR PERFORMANCE IN NIGERIA

By
AFOLABI LUQMAN OLANREWAJU

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Othman Yeop Abdullah Graduate School of Business, Universiti Utara Malaysia,

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ABSTRACT

This study examined the effect of trade liberalisation on manufacturing sector performance in Nigeria using secondary data sourced from Central Bank of Nigeria (CBN) statistical bulletin and other publications. This paper extends previous few empirical studies on the issue by providing some evidence from time-series data period over 1975-2011 in the context of Nigerian economy. In this study, the dependent variables was manufacturing output growth rate. The model was tested using unit root test, Bound test, Granger causality, Vector Autoregressive (VAR) and Impulse Response Function (IRF) to analysis that dynamic relationship between manufacturing output growth rate, Manufacturing capacity utilization, inflation, Trade openness and Total domestic demand. Based on the findings, this study indicates that the Granger Causality test shows that granger cause trade openness affect capacity utilization of manufacturing sector performance, total domestic demand granger cause manufacturing output while trade openness affect total domestic demand, (all is one way causality relationship). Vector Autoregressive (VAR) and Impulse Response Function (IRF) approach shows that the country's manufacturing sector performance growth rate is affected by the past values of the GDP. Finally this paper draws some policy implications for further studies to focus on how to improve manufacturing sector performance in Nigeria.

ABSTRAK

Kajian ini mengkaji kesan liberalisasi perdagangan pada prestasi sektor pembuatan di Nigeria dengan menggunakan data sekunder yang diperoleh daripada Bank Pusat Nigeria (CBN) buletin statistik dan penerbitan lain. Karya ini meliputi sebelumnya beberapa kajian ke atas isu ini dengan menyediakan beberapa bukti dari tempoh data siri masa lebih 1975-2011 dalam konteks ekonomi Nigeria. Dalam kajian ini, pembolehubah bersandar telah pembuatan kadar pertumbuhan output. Model ini telah diuji menggunakan ujian unit akar, ujian Bound, Granger sebab-musabab, Vector Autoregresi (VAR) dan Fungsi Impulse Response (IRF) kepada analisis hubungan dinamik antara pembuatan kadar pertumbuhan output, Pembuatan penggunaan kapasiti, inflasi, keterbukaan Jumlah Perdagangan dan permintaan domestik . Berdasarkan dapatan kajian ini menunjukkan bahawa ujian penyebab Granger menunjukkan bahawa penyebab Granger keterbukaan perdagangan menjejaskan penggunaan kapasiti prestasi sektor pembuatan, jumlah permintaan domestik Granger punca pengeluaran pembuatan manakala keterbukaan perdagangan menjejaskan jumlah permintaan dalam negeri, (semua adalah salah satu cara hubungan sebab-musabab) . Vector Autoregresi (VAR) dan Fungsi Impulse Response (IRF) pendekatan menunjukkan bahawa kadar pertumbuhan sektor pembuatan prestasi negara dipengaruhi oleh nilai-nilai yang lepas daripada KDNK. Akhirnya kertas ini menarik beberapa implikasi dasar untuk melanjutkan pelajaran untuk memberi tumpuan kepada bagaimana untuk meningkatkan prestasi sektor pembuatan di Nigeria.

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Thank you

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ABBREAVIATIONS

WTO	World Trade Organization
MVA	Manufacturing Value Added
GDP	Gross Domestic Product
MCU	Manufacturing Capacity Utilization
CBN	Central Bank of Nigeria
UNIDO	United Nation Industrial Development Organization
SAP	Structural Adjustment Program
IMF	International Monetary Fund
ADF	Augmented Dickey Fuller
ECM	Error Correction Model
VAR	Vector autoregressive
IRF	Impulse Response Function

CHAPTER ONE

1.0 Introduction

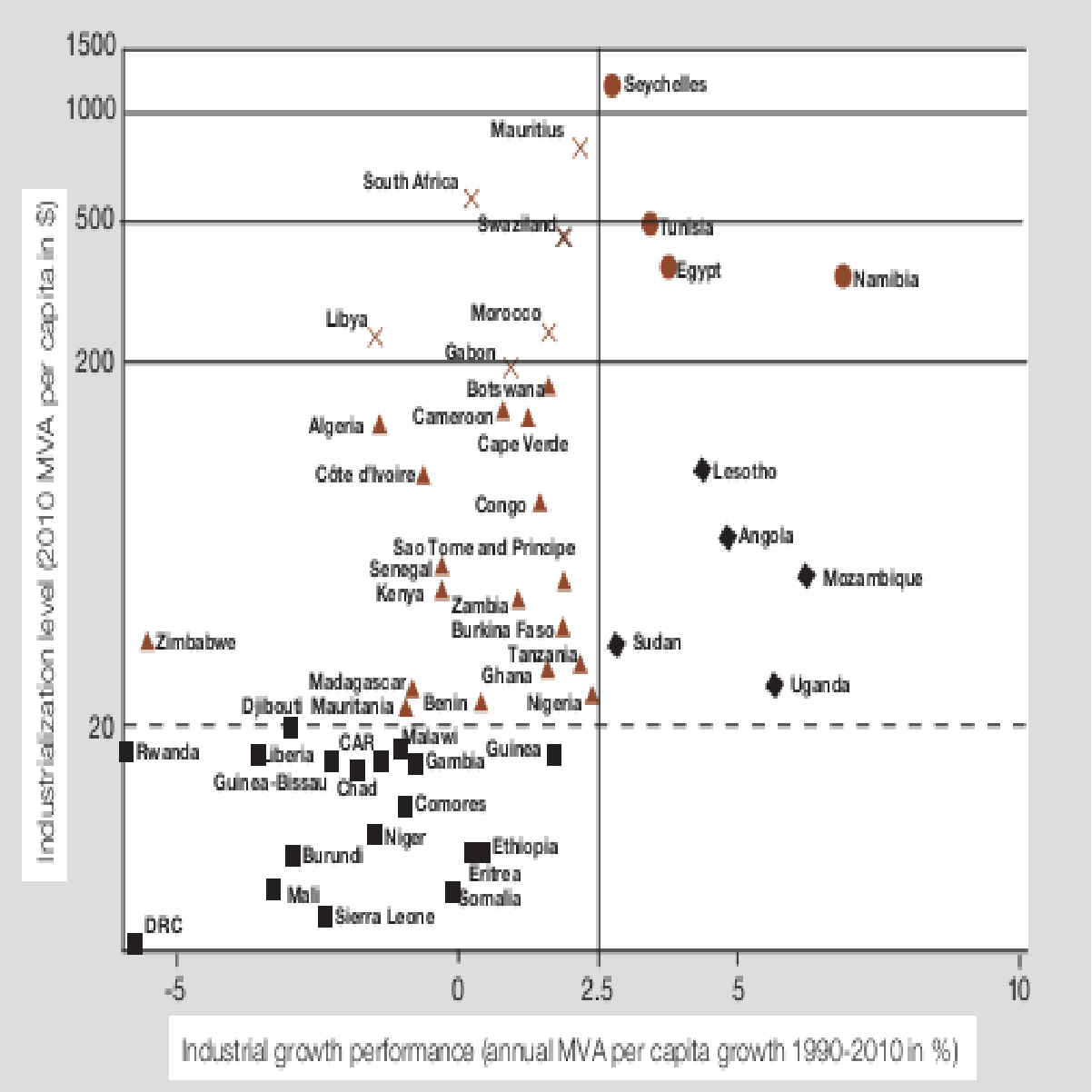
This chapter consist of background of the study, problem statement, research questions and objectives, significance of the study and organisation of the study.

1.1Background

The wave of trade liberalization is fast shaping the nature of a cross-border transaction. With the re-emergence of neo-liberal philosophy in the 1980s, which espouses as one of its fundamental policies the removal of all forms of trade restrictions, most developing countries did a u-turn in major policy thrusts to embrace this neo-liberal development orthodoxy. **(**Charles, D. S, 2001)

Openness of trade has been of utmost relevance among nations ever since the realization that international specialization is a prerequisite for global output growth. World Trade Organisation **(**WTO) been the champion in clamouring for free trade in other to enhance economic growth and development in the global trade but did not pay attention to the likely problems developing countries might faces when opening up the economy rather focusing more on the benefits which is mostly favoured by the metropolitan state due to the attainment of developed economy, which exposed developing countries' economies to various kinds of problems.

In Africa, the industrial growth performance can be divided into five stages namely: forerunners, achievers, catching up, falling behind and infant stage. The following listed stages determine where each African countries fall within. This has been illustrated in Figure1

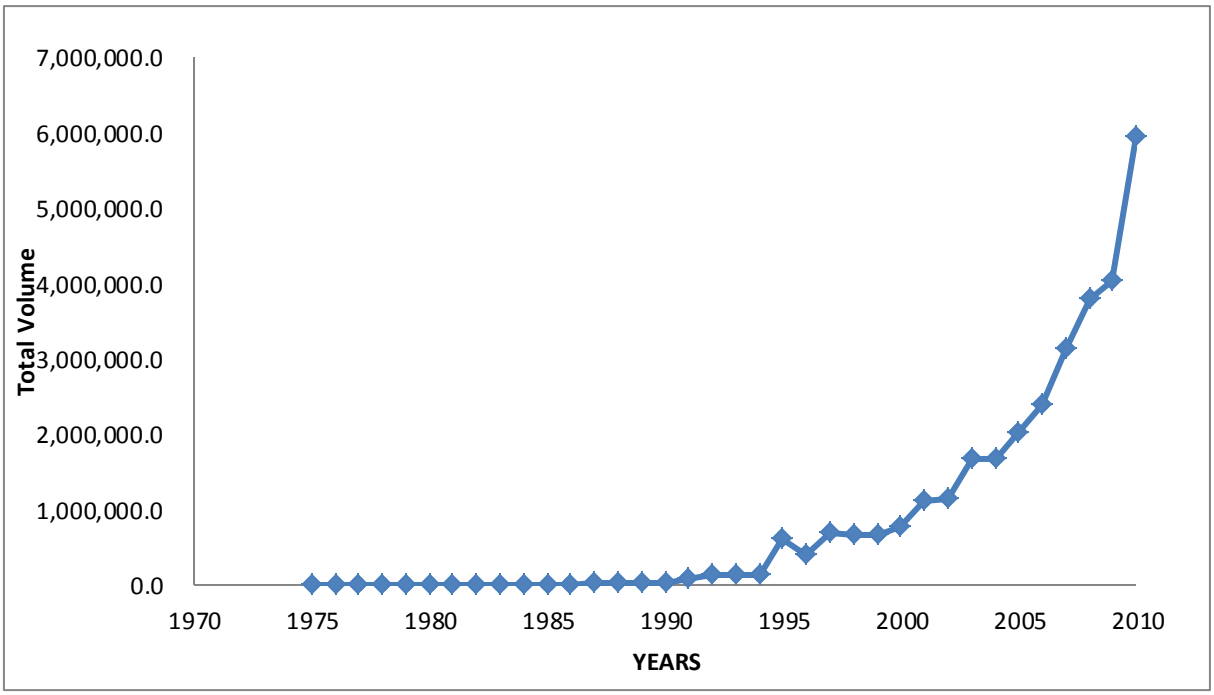


(Source: Constructed and modified from UNITAD AND UNIDO, 2011).

Figure 1.0: Industrial Growth Performance of African Countries (1990-2010).

The forerunner countries are Egypt, Namibia, Seychelles and Tunisia with the highest Manufacturing Value Added per capita level growth rate of about 7.7 per cent for the period of 1990-2010 (see Figure 1.0) and Namibia is ranked the best among this groups, Achievers group consist of Mauritius, South Africa, Swaziland, Libya, Morocco and Gabon in which this group performance is still very impressive which gives room for improvement. Where else Nigeria falls among the catching up group with less than 5percent industrial average growth rate as shown in (See Figure 1.0). The main challenges facing countries with poor performance and which indicate that those countries have problem on how to move into medium and high technology of production with a view of increasing their current capacity (Rosendahl, 2010).

Nigeria, been an important player in the global market place, is not shielded from global economic interactions. Ever since independence in 1960, Nigeria has been immersed in different multilateral and bilateral trade arrangements which are pointers to the openness of the Nigerian economy. The degree of openness however has been a subject of standing controversy and is largely dependent on the idiosyncrasy of the national government and the commercial policies adopted by the country at any point in time. The degree of trade openness which is quantitatively measured, was given as the proportion of total volume of trade to the national output were 26.6, 75.2, 41, 42 ,37, 38, and 42 per cent for the year in 1960, 1997, 2007, 2008, 2009, 2010 and 2011 respectively (World Bank, 2011). Recently, the international economic order is exerting a much more forceful momentum on nations to adopt a free trade policy.



(Sources: constructed from CBN Statistical Bulletin, 2011).

Figure 1.1: Nigeria non Oil Import Volume from Foreign Countries (1975-2010).

Nigeria imported most of it's finished goods from foreign countries since the economy is not able to produce the necessary basic needs and even the manufacturing companies that were able to produce finished goods were sold to the consumers at a very high price due to high cost of production, hence this prompted many Nigerians to prefer foreign product since it is relatively cheaper than the locally made ones and also the performance of manufacturing

sector will continue to decline because manufacturers is facing series of problems on how to access raw material due to stiff competition from foreign firms while references were made to the policies implemented by the government in the late 1990's which is still hindering the performance of manufacturing sector in terms of growth (Enebong,2003).

However as seen from (Figure 1.1) in the late 70's little was imported from foreign countries which shows that most of the products are locally manufactured up to early 1990's when the full implementation of structural adjustment program (SAP) began which is expected to bring improvement to the sector but rather contributed negatively due to the implementation of complete deregulation, privatisation, removal of government control, removal of subsidies given to local producers, allowing forces of demand and supply to determine prices ,free trade, reduction of import tax and many others. It was discovered that many manufacturing companies were not able to compete with foreign product which is much more cheaper than locally made hence this leads to closure of manufacturing companies and resulted into increase in importation since the degree of the openness is liberal with less restriction following the concept of free trade which is been championed by the world trade organization in other to enhanced global trade and is already given a negative effect on the economy growth rate, also economy is facing a lot of problem which include too much dependence on import for consumption including capital, social and economic infrastructure, while capacity utilization continue to decline in the industry hence forcing agricultural sector to be neglected .These and other factor have resulted in poor standard of living and continuous decline of income in Nigeria (Anyanwu. C, 2004) .

This is in alignment with the policy prescriptions of the World Trade Organization (WTO) which revolve around "fair competition" and "open market". This, coupled with the growing

prominence and influential position of the World Bank and the International Monetary Fund (IMF) in shaping the domestic economic policies of most less developed countries, is one of the salient factors responsible for the increase in the degree of openness in Nigeria as it is decipherable from the wide variability in the World Bank figures cited above.

On the domestic front, under the industrial development report the competitive performance of Nigeria industrial sector performance index cip for 2005 and 2009 stood at 81 and 103 position with cip index of 0.114 and 0.081 respectively out of 117 countries which shows the weakness of the sector in the global ranking , the Nigerian economy is riddled with a lot of misallocation of resources.

The monolithic structure of the economy with the oil sector been the most efficient leaves much to be desired. Oil dependency and the allure of great wealth generated through government contracts spawn other economic distortions.

Cheap consumer imports, resulting from an overvalued Naira coupled with excessively high domestic production costs due in part to erratic electricity and fuel supply and the resultant swelling energy costs, have affected manufacturing performance in Nigeria which can be viewed from a multi-pronged dimensions**.** The wave of closure of manufacturing establishments in Nigeria and the attendant consequences of mass job loss was researched into for the textile industry sub-sector by (Aluko M, 2004). Generally, the manufacturing sector as a whole has been in decline in recent years, marked by average growth rate in 1993-2010 of minus 1.2 per cent (African Recovery, 2011).

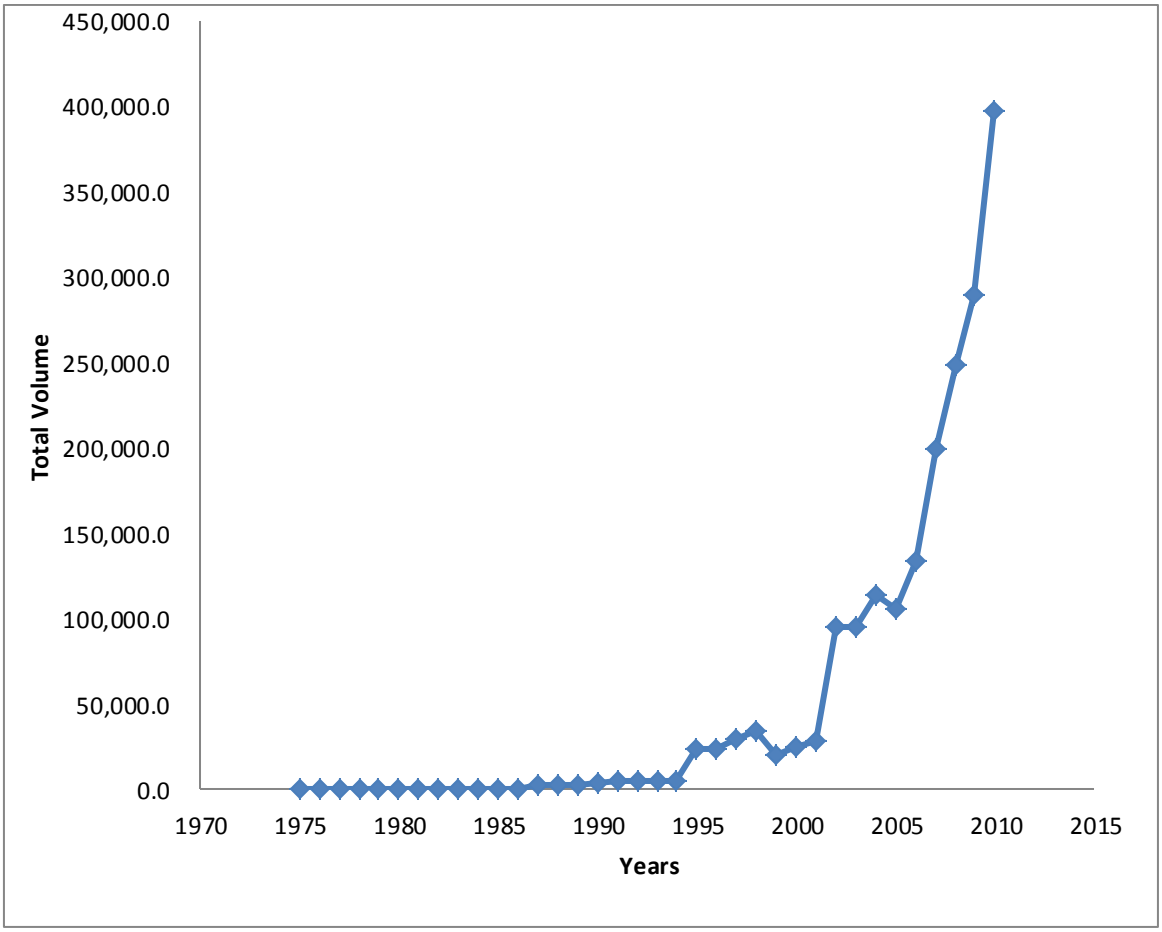


Figure 1.2: Non-Oil Export Volume from Nigeria (1975-2010).

(Sources: Constructed from CBN Statistical Bulletin, 2011).

Nigeria non-oil import is very high when compared with the non-oil export which signifies a negative effect of our trade openness. Looking at the volume of export and import in respect to figures, Nigeria non-oil export stood at 396,377.2 million while our non-oil import records 5,931,795.2 million as at 2010 which indicate that our economy rely on importation for consumption which is relatively dangerous for the economy to achieve growth and development (CBN,2011).

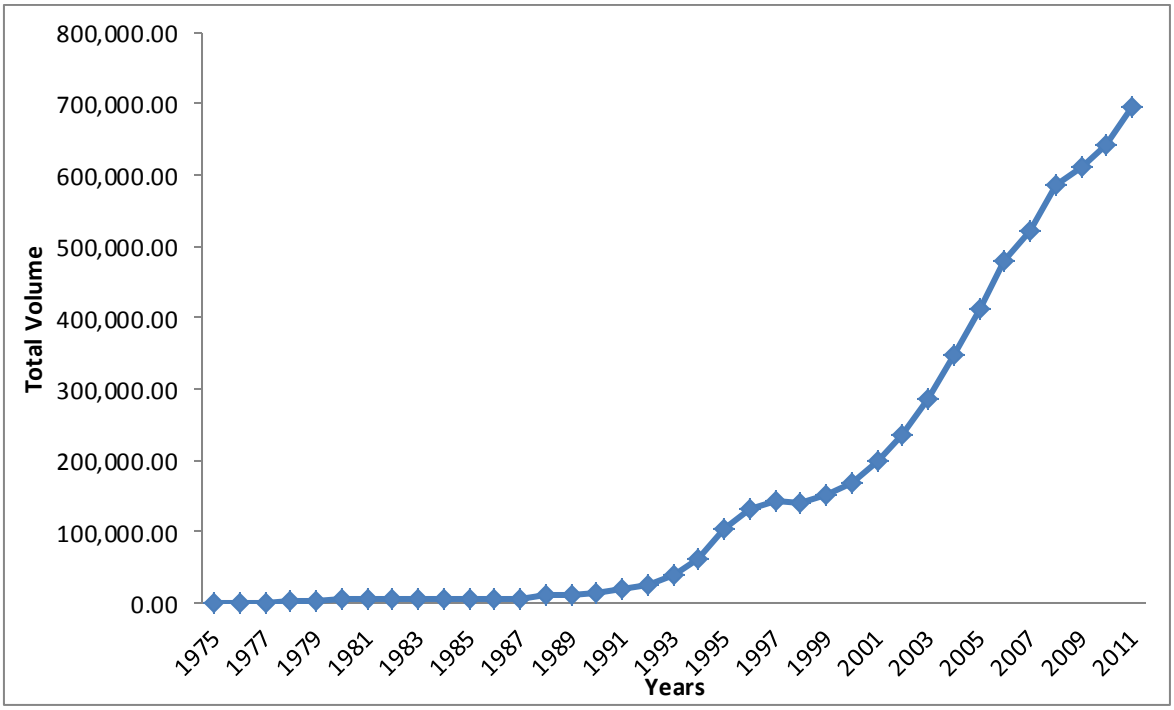
However our export figure indicate that most of our exported goods are raw materials less of finished goods to foreign countries since Nigeria is blessed with favorable climate for planting

and cultivating of all different kinds of agricultural products .The degree of openness has been subject of argument looking at the indicators which indicate that most of the surviving manufacturing companies in Nigeria are mostly multinational due to strong financial and political backup from their home countries. Hence most of the companies in existence before have either moved to neighboring countries or host country for possible importation of their products to Nigeria at a very cheap price . Nigeria economy and manufacturing sector is still struggling to attract foreign direct investment due to the trade openness been practiced. However the activities and system operated in the manufacturing sector are not encouraging, available statistics shows that macro economy data and manufacturing sector performance does not paint a good contribution to the Gross Domestic Product and national employment level. Most Nigerians now preferred foreign product than locally made goods since is cheaper. **(**Ayanwale AB, 2007**).**

Looking at the efficiency of the manufacturing sector using the key performance indicators of unused capacity and contribution to (GDP), the situation still appears not encouraging.

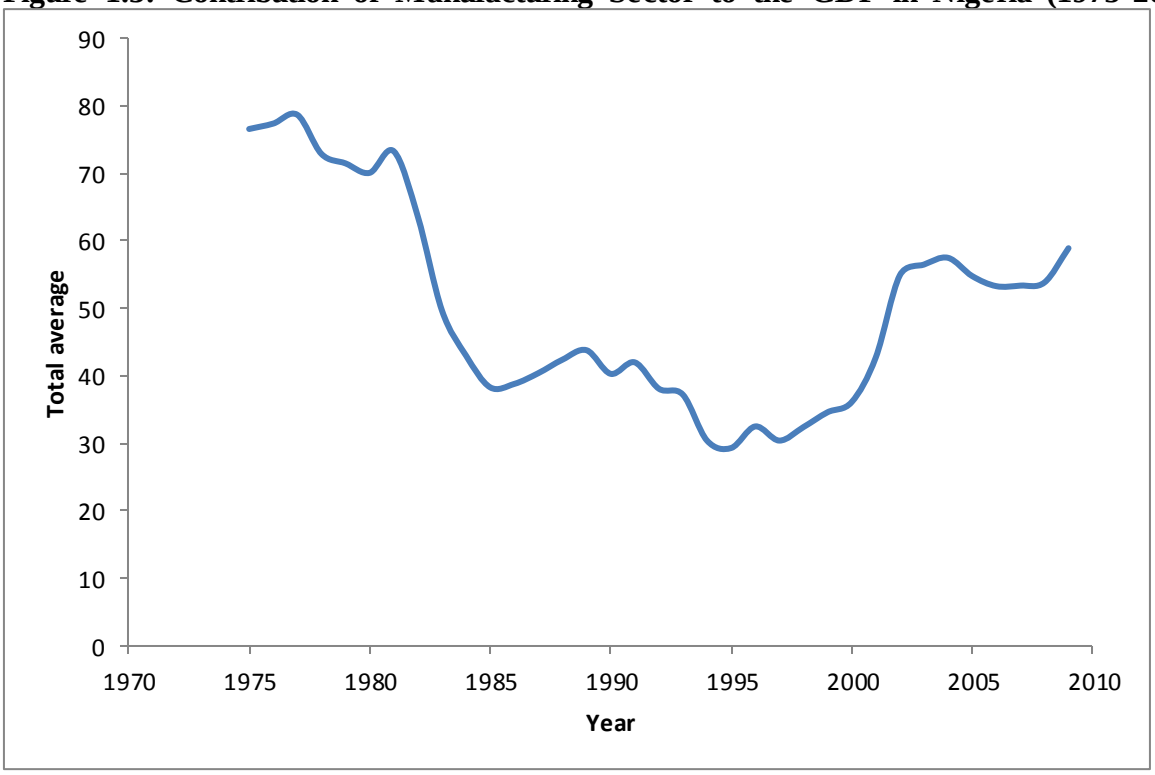
Industrial capacity utilization averaged 54.30 per cent in the last decade and the contribution of manufacturing to GDP perpetuated at one digit since 1975 to 2008 (CBN Statistical Bulletin, 2009). Many more Nigerian factories would have closed except for the relatively low labour costs. Domestic manufacturers, especially pharmaceuticals and textiles, have lost their ability to compete in traditional regional markets; however, there are signs that some manufacturers have begun to address their competitiveness. The poor performance that has come to characterize the manufacturing sector in Nigeria is a product of many variables. The most important however is the low domestic and foreign demand for local manufactures.

Globalization has come to be the tune which every nation of the world dances to. Trade openness being one of its dimensions has opened up the domestic manufacturers to fierce foreign competition.



(Source**:** Constructed from CBN Statistical Bulletin, 2012)

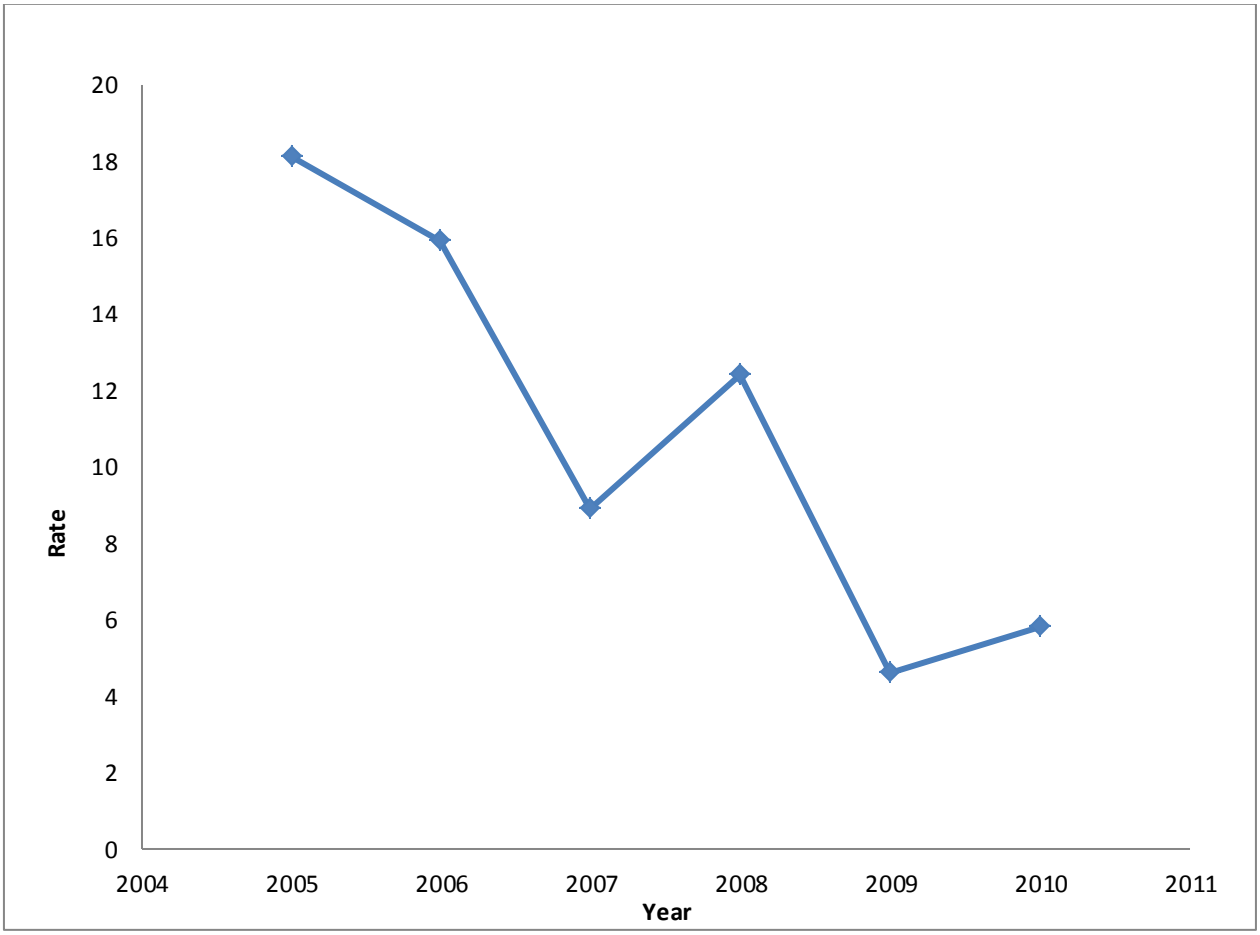
Figure 1.3: Contribution of Manufacturing Sector to the GDP in Nigeria (1975-2011).



(Source: Constructed from CBN Statistical Bulletin, 2011).

Figure 1.4: Average Capacity Utilization of Manufacturing Industries in Nigeria (1975-2010).

Nigeria manufacturing sector experienced extraordinary growth between the periods of 1970's to 1980's as depicted in the graph **(**Figure,1.4**)** ,hence the doldrums periods began since 1983.This is due to fluctuation in the oil market and since Nigeria economy is a mono based type solely rely on oil ,this and other factor forced the government to design and implement various policy in other to improve the economy such as structural adjustment program which is intended to improve the situation in 1986 but rather contributed negatively by exposing manufacturing sector to foreign competitions which lead to shut down of many manufacturing sectors and loss of thousand jobs across the nations. Productivity improvement must be centre goal in other to move industrialization forward rapidly in other to achieve economic growth. Despite different trade policies implemented no meaningful achievement has been recorded due to the trade openness been practiced .Trade liberalization has dampen industrial productivity since it is open to foreign product which is cheaper hence forcing the infant companies to close down. The appalling state still continue up till date in the sector.



(Sources : Constructed from CBN Statistical Bulletin, 2011).

Figure 1.5: Nigeria Industrial Production Growth Rate (2004-2010).

Nigeria's industrial production growth rate has not really improved rather it keep on fluctuating which signify the moribund state that needs attention to bring the manufacturing sector back on track . For Nigeria to compete with other developing nation an emergency and review of trade liberalisation needs to be reviewed in other to achieve economic growth and development or else the trend will still continue.

1.2 Problem Statement

Nigeria manufacturing sector falls among the group of catching up under industrialisation ranking in Africa while in the world ranking of industrialization Nigeria was ranked 108 out of 117 members (UNIDO, 2010). Most industries in Nigeria are struggling to survive, with capacity utilization in the manufacturing sector down from 70 per cent in December 1980 to about 28 per cent in the first half of 2010 (CBN, 2011) One of the greatest problems facing the Nigerian economy is the stagnant state of the manufacturing sector. The source of this problem can be viewed from two perspectives; internal and external. The former became much more pronounced following the government failure to provide basic industrial infrastructures and workable incentives to spur manufacturing activities; and the latter is occasioned by the more recent wave of globalization in its various dimensions.

The manufacturing sector is on the verge of collapse with thousands of workers being thrown out of jobs, accentuation of chronic capacity underutilization and emergence of negative growth rate. Again, Nigeria has become an open market for all kinds of foreign products. This is occasioned by the high rate of trade openness which stood at 3953 per cent in 2011. Because of these unanswered questions, Nigeria and many other developing nations blindly joined the global race and the experience has not been too good. The situation became worsened by the fact that most Nigerians have preference for foreign goods or anything imported. The consequence of this is that domestic manufactured products became piles of forced inventory accumulation thus entrenching and institutionalizing the problem of capacity utilization. According to UNIDO 2010 report, Nigeria needs an urgent intervention in order to contribute is own quota to global trade especially in non-oil sector if they want to achieve vision 2020 objective of becoming one of the top 20 economics by 2020.

1.3 Research Questions

There is thus the inevitable need to turn the searchlight on trade liberalization and all that accompanied it, and to examine its impact on the Nigerian manufacturing sector. This is in a view to examining whether it is beneficial or not and to suggest how Nigeria's interest can be protected under the global agenda or arrangement if she must continue to participate in it. Therefore this study is set to answer the following specific research questions.

i) To test whether there is any evidence of causality between trade openness and manufacturing output index as a hypothesis in Nigeria?

ii) To examine Granger causality among capacity utilization, inflation , trade openness and total domestic demand manufacturing sector performance in Nigeria using time series data over the period from 1975-2011?

iii) To establish the importance of each of these independent variables, which are inflation, capacity utilization, trade openness and total domestic demand in influencing manufacturing growth rate?

1.4 Objectives of the Study

The overall objective of this study is to examine the impact of trade openness on the manufacturing sector performance in Nigeria, In order to achieve this main objective. The following specific objectives are focused on.

1. To test whether there is any evidence of causality between trade openness output and manufacturing output index as a hypothesis in Nigeria?

2 To empirically examine Granger causality among capacity utilization, trade openness and total domestic demand on economic growth in Nigeria using time series data over the period from 1975-2011?

3. To establish the importance of each of these independent variables, which are inflation, capacity utilization, trade openness and total domestic demand in influencing manufacturing growth rate?

1.5 Significance of the Study

The quest for this study is predicated on the researcher's strong will to explore the significant impact of huge imports (consumer and intermediate goods) and exports, both of which are determinants of trade openness, on the much hyped appalling performance of the Nigerian manufacturing sector. On the surface there seems to be a policy conflict. The trade policy of the country leans towards free market (as figures of trade openness indicate). Stakeholders in the manufacturing sector are showing much concern on the declining performance of the sector. Hence this study is positioned to give empirical justification to the effect of trade openness on manufacturing sector performance. Free trade policy in Nigeria needs to be revisited in other to strengthen the economy for possible foreign direct investment in manufacturing sector and possibly protect locally manufacturing companies from foreign competition if the government want to attain self-sufficiency, growth and vision 2020 as planned This will help in throwing light on the appropriate policy mix required for Nigeria to benefit maximally from the wave of global economy while protecting the business interest of local manufacturers.

1.6 Organisation of the Study

This research is organized into six chapters. Following this introductory chapter while chapter is the historical overview and definition of terms, chapter three which focuses on the review of relevant literatures on trade openness and the performance of manufacturing sector. The fourth chapter will focus on the theoretical framework and research methodology. Presentation and analysis of data are examined in chapter five while chapter six concludes the study with policy implication of findings.

CHAPTER TWO

A Glimpse of Nigeria GDP

2.0 Introduction

This chapter overview the various trade policies implemented in the context of Nigeria economy from independence to the present stage. Specifically, the following periods will be discussed: a glimpse of Nigeria GDP including the pre-oil boom and post-oil boom period, the period of stabilisation and structural adjustment program, the period of guided regulation, the overview of Nigeria manufacturing sector till date and various industrialization policies in African countries which directly affected Nigeria economy.

2.1 A Glimpse of Nigeria GDP since Independence

The Nigeria economy has had a truncated history. The Gross Domestic Product (GDP) accounted for annually growth of 3.1percent for the period of 1960-1970.During the oil boom epoch 1970-1978 the GDP increase positively with the annual growth rate of 6.2 per cent yearly. Furthermore GDP recorded a negative growth rate during the period of structural adjustment and economic liberalisation program during the period of 1988-1997, years after independence the GDP responded positively well to the various economic adjustment policies at a growth rate of 4.0, industry and manufacturing sectors recorded a positive growth rate after independence except the period of 1980-1988 where manufacturing and industries grew at -3.2 and -2.9 respectively. Agricultural sector performance was unsatisfactory during the period of 1960-1970 and 1970-1980.In the early 70's agricultural faces the problem of drop in

agricultural product while the oil boom contributed to negative effect of agricultural sector due to the fact that the boom in the oil sector lured away labour from rural to urban areas.

However agricultural contribution to the GDP in the early 60's was 63 per cent as at 1960 but reduced to 43 per cent in 1988 not really because the industrial sector improved during that time but due to the neglect of the sector.it was very surprising that the economy had become a net importer of basic food items apparently improvement recorded for the manufacturing and industrial sector from 1978-1988 was because of the mining sector ,specifically petroleum while in general capital formation has not been satisfactory ,Gross Domestic investment as a component of GDP which was at 16.3 and 22.8 per cent during the periods of 1965-1973 and 1973-1980 respectively records was very low especially public saving .The balances of current account was negative before official transfer for the period of 1965-73,1980-1988 and 1991-1998.

Inflation during the early 60's had never entered double digit .Moreover ,the inflation rate increased to 23 per cent as at 1976 .it also reduced to 11.8 per cent in 1979 and jumped to 41 and 72.8 per cent during the period of 1989 and 1995.as at 1998 the inflation rate had however reduced to 9.5 per cent from 29.0 per cent in 1996 while from 2006 to 2012 is on average of 10.7 per cent reaching the highest point as at February 2010 the rate is at 15.6 per cent while it reduces to 3.0 as at July 2006 but for 2012 the inflation rate stood at 9 per cent .

Unemployment rates is at an average of 5 per cent for the period of 1976-1998 while the unemployment rate increased tremendously to 21.10 and 23.90 as at 2010 and 2011 respectively due to the various economic and political crises.

2.2 Pre and the Oil Boom Era 1960-1977

The economy of Nigeria is majorly characterized by commercial activities and export before independence then there was no viable industrial sector .immediately after independence agriculture continued to dominated the economy despite fluctuation of world prices ,agriculture contributed 65 per cent to GDP and represent 70 per cent of the total export due to the fact that the sector provide raw materials for foreign companies and was used in exchange for importing capital goods .The marketing board generate a lot of revenue from the agricultural proceed made while the surplus was used to develop the basic infrastructures needed. The main of the policy thrust was to maximise the benefit of the export –led development strategy. The industrial sector scheme of 1950s under import substitution strategy which was adopted where by imported goods will be produced domestically. Protective measures such as tariff, quotas were put in place in order to ensure that domestic industries were allowed to grow.

In 1971, the share of agriculture to GDP stood at 48.23 per cent. By 1977, it had declined to almost 21 per cent. Agricultural exports, as a percentage of total exports, which was 20.7 per cent in 1971, reduced to 5.71 per cent in 1977. The discovery of oil in commercial quantity in the mid-1950s, coupled with the oil-boom resulting from the Arab oil embargoes on the USA in 1973, affected the agricultural sector adversely. The economy became heavily dependent on oil. By this time, oil revenue represented almost 90 per cent of foreign exchange earnings and about 85 per cent of total exports. While the boom afforded the government much needed revenue, it also created serious structural problems in the economy.

The agricultural sector was most hit. Rural urban migration increased, as people attempted to reap or benefit from the windfall from oil. Production of agricultural commodities for export declined. Food production became a problem. Starting from 1974, the economy became a net importer of basic foods. Huge foreign exchange earnings were utilised in importing food. Nonetheless, prices of foodstuff remained high. Policies like the government's Operation Feed the Nation (OFN) programme could not reverse the deteriorating food situation. Government was involved in direct food production, provided subsidies to peasant farmers and created more commodity boards for various agricultural and food products. The growth rate of GDP was quite high, such that a growth rate of 10.5 per cent in 1976 was considered unimpressive. Government expenditure fuelled the inflation rate. Between 1975 and 1976, the rate of inflation reached 23 per cent. It reduced to 16 per cent in 1976 and 1977. For the same periods, unemployment rate was 4.3 per cent and 2 per cent respectively. The discomfort index in 1976 stood at 27.3 per cent.

The neo-Keynesian type management of the economy was glaring during this period. Policy makers advised the government not only to embark on ownership and control of the commanding heights of the economy like the petroleum and mining sectors, but also to be directly involved in banking, insurance, clearing and forwarding, among others. With the promulgation of the Nigerian Enterprises Promotion Decree in 1972, Government became directly involved in virtually all aspects of the economy, especially as foreign exchange was thought to be no longer a constraint to development.

This era had its problems. Primitive accumulation intensified. Corruption, theft, real estate speculation, outright looting' of government treasury and other fraudulent practices prevailed. The State, on its own, intensified the creation of a business class that depended solely on government contracts rather than on production. The gap between the rich and the poor widened considerably. Ad-hoc and ill-conceived government policies exacerbated the problem. For example, the 100 per cent salary increase of 1975, tagged the Udoii Salary Award, was disastrous tor the economy as prices increased by more than 100 per cent. The payment of a year's arrears of the increase in salary, further worsened the situation.

The exchange rate regime encouraged imports. The economy was heavily dependent on imports; almost everything was imported, from toothpicks to toothpaste dispensers. There was no serious attempt to invest the windfall from oil in viable projects. Except for the huge expenditures on education and construction of dual carriage highways in some parts of the country, Nigeria would have had nothing to show from the oil boom era. The industrial sector also depended on import ed inputs, machinery and raw materials. Hence, the so-called manufacturing and mining industries (using 1972 as the base year), which indicate remarkable increases, appear misleading. The manufacturing sector increased by 82.2 per cent between 1972 and 1976 and by almost 94 per cent between 1972 and 1977.

The increases must be interpreted with caution, if industrialisation is seen to imply the process of developing the capacity of that country to master and locate, within its borders, the whole industrial production process, namely production of raw materials, production of intermediate

products for other industries; fabrication of the machines and tools required for the manufacture of the desired products and of other machines and tools, skills to manage factories and to organise production processes. Declining oil revenues, disequilibrium in the balance of payments, growing unemployment, increasing rate of inflation and political instability, all confirmed that demand-induced policies were no longer effective. By 1978, a country which had thought that foreign exchange was not a constraint on development went borrowing on the Euro-dollar market.

Despite the oil boom, the private sector remained weak. The existing macroeconomic policies continued to encourage consumption rather than production. The economy was consuming what she was not producing. The austerity measures introduced by the military administration under General Olusegun Obasanjo were short-lived because structural problems were not addressed. GDP, which grew at 10.5 per cent in 1976 declined by 5.7 per cent in 1978 and grew by only 5.9 per cent in 1979. Consequently, the economy entered the recessionary phase, requiring further stabilisation measures to reverse the gloomy situation.

2.3 Stabilisation and Structural Adjustment Program 1978-1993

Between 1978 and 1986, except for 1979 and 1985 when GDP showed positive growth, the economy continued to register negative growth rates. There were also high inflation, high unemployment rate and fiscal imbalance. The stabilisation and austerity measures of the Shehu Shagari regime (1979-83) did not arrest the deepening crisis.

The balance of payment did not improve. There was an increase in external loans which further accelerated the debt over-hang situation. It was clear that the economy was suffering from

stagflation. The country's industrial capacity utilization, which was 73.6 per cent in 1981, declined consistently during the period such that by 1989, it was 31 per cent. Manufacturing which grew at 14.6 per cent in 1981 reduced to 3.2 per cent in 1989. This poor performance occurred despite various stabilization policies of the 1980s. The structure of the economy made it vulnerable to external shocks and policies. The problems were so severe that restructuring of the economy was inevitable.

Consequently, a comprehensive economic reform package was introduced in 1986. The package aimed at changing and realigning aggregate domestic expenditure and production patterns so as to minimize dependence on imports; enhance the non-oil export base, and bring the economy back on the path of steady and balanced growth. Specifically, the objectives of the program were designed, amongst others:

1. to restructure and diversify the productive base of the economy in order to reduce dependence on the oil sector and on imports; to achieve fiscal and balance of payments viability; to lay the basis for sustainable non-inflationary or minimal inflationary growth; and to lessen the dominance of unproductive investments in the public sector, improve the sector's efficiency and intensify the growth potential of the private sector.

Some of the policy measures adopted in pursuance of these objectives were:

Adoption of a realistic exchange rate policy, further rationalization and restructuring of tariffs in order to aid the promotion of industrial diversification,. improved trade and payments liberalization;. reduction of complex administrative controls simultaneously with a greater reliance on market forces;

Adoption of appropriate pricing policies, especially for petroleum products and public enterprises; and commercialization and privatization of public sector companies.

The economic reform program appeared to have intensified speculative and trading activities rather than increasing production. The proliferation of merchant banks, finance houses, de-regulation of interest rates, privatization of the economy and the new industrial policy did not bring in the needed foreign direct investments. The private sector did not live up to expectations, despite the then favorable environment. During structural adjustment, the private sector was supposed to serve as an engine of growth. Rather sadly, after eight years of structural adjustment measures, the private sector was not able to respond adequately to the desire for increased production, employment and stable prices. The share of manufacturing in GDP was still low, while capacity utilization was a little above 30 per cent.

Essentially, the performance of the Nigerian private sector vitiated the major assumption that underlies an IMF adjustment program to the effect that the private sector has the capacity to respond to sup ply-side incentives. Regarding privatization and commercialization, the public utilities had taken them to mean increased prices without corresponding efficiency and productivity. The unjustifiable price hikes (sometimes in the range of 500-2000 per cent) compounded problems for the industrial sector and the provision of social services.

The increased prices paid by consumers further reduced the latter's already declining real wages. It is not clear why imports were liberalized in an economy that was suffering from inadequate foreign exchange. The reform program had sought to encourage export promotion, but traditional exports could not bring in the much-needed foreign exchange. Commodity prices fell and for a crop like cocoa, there was a glut in the market. Furthermore, the prices of export

commodities were outside the control of the Nigerian economy.

Hence, eight years into the adjustment program, non-oil exports remained insignificant. The persistent depreciation of the Naira vis-a-vis other major currencies created further distortions in the economy. The instability in the exchange rate created uncertainty and fuelled inflation. Indeed, there was a direct correlation between movements in the exchange rate and inflation. The external balance remained in disarray despite the devaluation of the domestic currency, while external debts mounted. The mismanagement of the foreign exchange market resulted in huge profits for the financial sector. This was due to the wide differential between the official and the parallel market rate Consequently; there was a boom in the financial sector, although not in the other sectors of the economy.

Manufacturers were not unable to procure foreign exchange tor their imports nor could they raise funds generally, given the high cost of borrowing money. While there was a fair consensus that the slic of the Naira needed to be halted, opinions on ho best to stop the further decline of the domestic currency differed. There were those who preferred the intervention of government either in 'fixing' its exchange rate and/or creating a multiple exchange rate regime. This option could be likened to the system of import licensing with its attendant corruition. In the forex system, the banks and other financial outfits did not have a precise criterion for selling forex to their customers; hence, corruption. Another opinion quarreled with the mechanism for determining the exchange rate. It argued that, the introduction of the Foreign Exchange Market (FEM) was improper and that what was needed; that time were minor adjustments for inflation which would have resulted in a variable exchange rate (the Naira, and urgent action to reduce the budget deficit.

2.3.1 GUIDED DEREGULATION (1994-1998)

Some gains were undoubtedly achieved during the period of Structural Adjustment Program (SAP). However, the program brought about number of problems, some of which were unbearable for the populace. Actually, SAP was intended to be a long-term program which would gradually restructure the economy and set it on the path (stability and sustainable growth. Unfortunately, the operators of the program lacked commitment t its long-term achievable goals. The program was hastily implemented and this brought abolendemic inflation, shortage of foreign exchange increased unemployment, low capacity utilization fiscal deficit and an overall degeneration of the poverty situation in the country. This made a immediate review of the policy imperative.

The dual exchange rate regime was introduced in 1995 as an attempt to redress the continued depreciation of the domestic currency. The essence was to achieve a stable and realistic value for the Naira. As a follow up action, the Central Bank of Nigeria, in 1996, intervened in the operations of the autonomous market to ensure that it was adequately funded. Between 1994 and 1998, real GDP grew steadily from MI 01.0 billion to M113.0 billion. The annual growth rates were 1.3 per cent in 1994, 2.2 per cent in 1995, 3.3 per cent in 1996, 3.8 per cent in 1997 and 2.4 per cent in 1998. Given the esti mated population growth rate of 2.83 per cent, the GDP growth rate of 2.4 per cent in 1998 implied that the average Nigerian citizen was worse off in terms of well-being than in 1997. In terms of per capita income, there was fluctuation in this index of welfare between 1994 and 1998.

Perhaps, a contributing factor to this dismal picture was the contractionary monetary and fiscal policy measures adopted by government, due in part to IMF and World Bank initiatives for reduced public expenditure in the economy. In 1994, the value of output per head of the population was about MI,053. It reduced to MI, 047.0 in 1995, rising marginally to about MI,051.0 in 1996. The figures for 1997 and 1998 were MI, 081.3 and MI, 078.4, respectively. During the period of guided deregulation, and despite efforts by government and the private sec tor to redress the situation, there was still high unemployment. The published unemployment rates were of 3.2 per cent in 1994, 3.8 per cent in 1996, 2.6 per cent in 1997 and 14 per cent in 1998. The general consensus among economists and various social commentators was, however, that the rates of unemployment were far higher than the true ones published. The Nigerian economy was not able to create enough employment opportunities for citizens who were able and willing to work. Moreover, an adequate environment was not created for self employment.

2.4 An Overview of the Manufacturing Sector in Nigeria

Historical performance and developments can be divided into six stages starting from independence till date.

2.4.1 Pre and post-independence Era (1960 to 1979)

In this period industrialization was the key to economic independence with the aim of solving unemployment and poverty .The colonial Development and welfare acts and several other laws was created to enhance the industrial growth with the aim of achieving greater performance in the sector .The step taken further enhanced the manufacturing sector performance to improve by 12.2 percent between the period of 1958-1966/67 and the contribution of manufacturing

sector to GDP then was 0.4percent in 1950 which increases to 4.82 percent in 1960 while in 1961 it increased to5.22percent and for 1965/66 it increased to 7.02percent .

However the post-independence period is characterized by declension in terms of trade due to the discovery of oil within the economy, mainly the manufacturing sector was dominated by few European commercial firms while agricultural production and manufacturing continue to decline. Beran et al, (1999).The period of civil war started around 1970-1979 which characterized by oil boom which enhance increase in infrastructure and public sector investment in large scale manufacturing concerns. This was a target set in order to achieve import substitution of consumer durables and consumers goods. The policy was introduced mainly to protect local manufacturers from foreign competition since local manufacturer mainly depend on importation of raw material and local goods which later resulted to lack of competitiveness and the in creation of manufacturing base which is less insignificant and had a negative relationship on the rest of the economy (Adewuyi,2006) ,

2.4.2 The Transition period (1980- 1999)

The transition to austere economy started from 1980 to 1986 due to drop in oil price as a result from an increase in deficit funding that drained the external reserve which leads to tremendous increase in foreign debt .In 1982 the loss of foreign reserve leads to increase in inflation which resulted to emergency stabilization policy measures such as review of import licenses, advance deposit for importation ,increase in import duties and others policies with a view of reviving the economy back to shape .

Moreover the aggregate index drop 26percent in 1983 while the average capacity utilization of manufacturing industries also drops from 73percent in 1981 to 38.2 percent in 1986.The only significant changes recorded through stabilization policy is that there is reduction in the volume of import but failed to improved the manufacturing sector performance .

According to CBN annual bulletin quoted by Anyanwu et.al (1997), manufacturing sub-sector in Nigeria between 1970-1995 were still on negative trend for instance, capacity utilization reached its peak in 1980 at 75percent and since that time it started to drop continuously until when it reaches 29.3percent in 1995 while another important indicator that is import volume have been on increasing trend since1960and up till date with annual increase from 1.1b in 1965 to 56.6b in 1995 Afeikhena (2008) .

The structural adjustment program and economic liberalization between the period of 1986 and 1999 was a program designed for medium term strategically for bringing back the economy to a better state in other to leave recession zone and aimed toward sustainable development and growth. Most of the manufacturing industries needs to readjust to the new policy implemented by the government. The policy introduced aimed toward liberalizing regulation governing the importation of capital ,raw material, beginning to create import substitution companies ,full privatization and commercialization of industrial sector while this and other policy designed to bring back the industrial sector back on track failed and did not yield any meaningful result which was mainly characterized and hindered by political crises with military rule been place in the country .

2.4.3 The Manufacturing sector from 1999 till date

The sector has failed to play is leading role has the driver of the economy toward achieving development and economic growth ,generally the sector is very weak when looking at the contribution is contributing to the GDP for instance ,GDP growth rate for manufacturing sector recorded an increase of 1.1 percent in 1999 while it rises to 5.4 in 2000 and 2004 and 6.9percent for 2005,yet looking at the contribution is still less than 10 percent which show the weakness of the sector in summary the manufacturing sector failed to be recognized as the prime mover of the Nigeria's economy due to the performance which indicate that the economy rely on importation for domestic consumption ..

2.5 Review of Industrialization policies in African countries

The industrialization policies in African countries can be viewed or sectioned into three stages namely import substitution industrialization phase ISI,Structural Adjustment Program Model, Poverty reducing strategy papers Model PRSP phase.

2.5.1 Import Substitution Industrialization Stage (1960-1970)

ISI phase started in many African countries with the aim of implementing a policy mainly to produce domestic goods locally for consumers and hence reduce imported goods within the economy. Along the line this industrialization phase still include production of intermediate and capital goods which is needed by domestic consumer goods industry .This ISI policy is of the view that domestic product goods will replace imported goods over a long period of time when fully implemented and this will leads to self-dependency and improve balance of

payment. This industrialization policy involves government support and protection in other to protect them from foreign competitors' especially infant industry which was identified and fully protected by most African countries through various trade, protection and economic policy. However the share of manufacturing sector in most African state improved in fact the GDP rise very well within the period.

Later on it became evident that ISI model could not be sustained due to so many reasons which include lack of government support where by very few of the local industry were able to get government support and those that were able to do so compete internationally with others foreign industries (wayne and semboja 2003). According to (wangwe 1995,lall and wangwe 1998) the implementation of ISI in most African Countries had an anti-export bias such as Mauritius and Zimbabwe while domestic protection market allowed firms to accumulate resources and invest in the development of capabilities needed for exporting .

2.5.2 Structural Adjustment program (1989- till date)

The origin of SAP could be traced back to when most African countries including Nigeria faces severe balance of payment problem crisis resulting from compounding effect of oil crises, reducing commodity prices and the growing import needs of domestic industries, In view of this problem most of African countries including Nigeria seek for assistance from IMF and world bank, then both body identify poor policy making and implementation as the major hurdles facing most African countries ,in other for this bodies to solve this problem SAP was recommended for African countries (Soludo, ogbu and Chang 2004).

The policy include the following deregulation of interest rate, trade liberalization, privatization of state owned enterprises ,withdrawal of government subsidies and currency

devaluation among others. The main aim of this objective is to reduce the role of state control in industrialization process and development with the sole aim of given room for market force to act and determine the forces of demand and supply in the allocation of resources. Critics of SAP argue that the implementation of SAP put most African countries on a low growth rate path especially Nigeria and which reduces government effort toward economic diversification and create erosion in the industry base for the region (sundaram and von amim, 2008 mkandawne 2005, soludo, ogbu and chang,2004 stein ,1992)

2.5.3 Poverty reducing strategy papers Model 2000 till date

This is a program design as debit relief program which is different from others model it is evident that it did have consequences for industrial development in Africa because the first generation PRSPs led to a shift of resources from the production to the social sectors. The second generation PRSPs have tried to address the social sector bias problem associated with the first generation PRSPs. However, interest in the productive sectors in second generation PRSPs in Africa tends to be in agriculture and its related industries, reflecting largely the widespread view that African countries have a comparative advantage in these industries and that agriculture is an important source of pro- poor growth. For an in-depth analysis of the implications of the PRSP for Africa's economic development see (UNCTAD, 2006)

CHAPTER THREE

LITERATURE REVIEW

3.0 INTRODUCTION

This chapter focuses on the review of literature relating to trade openness and manufacturing sector performance. The chapter is broadly divided two. The first section examines the theoretical literature under which different related theories are reviewed. These theories are further streamlined into two major strands, the traditional theories and the contemporary theories of international trade whereby it shows how different countries engage in international dealing which involves the traditional period and the modern time in terms of trade. The second section of this chapter reviews empirical literature where related evidences and findings are discussed.

3.1 REVIEW OF THEORETICAL LITERATURE

The phenomenon of transactions and exchange is a basic component of human activities throughout the world. External trade, more often known as international trade happens to be one of the first areas of economics that were well developed because of the interest of countries that traded with each other. It belongs to the sub field of economics called international economics, which deals with the study of international trade, investment and international finance. The study of causes and consequences of exchange of goods and services and the international movement of factors of production comprise the real or pure theory of international trade. In particular the pure theory of international trade attempts to proffer answers to such puzzling questions as: why trade, what determines the volume, composition and direction of trade? It also attempts to find out the effects of trade on the

economic performance of participating countries. The primary objective of any theory of international trade according to Iyoha (1995) is to explain the cause of trade. Other objectives of the theories of international trade examined are couched in their attempt to explain what determines the direction, volume and composition of trade. A theory that explains these issues is conventionally said to be a complete theory of international trade. The two complete theories (traditional theories) of international trade examined by Tadaro and Smith (2003) are the classical theory (also known as the Ricardian theory) and the neoclassical theory developed by two Swedish economists Eli Heckschar and Bertil Ohlin. The theory is therefore popularly known as the Heckshar-Ohlin theory. Each strand of these theories is reviewed in the following section.

3.1.1 Traditional Theories of International Trade

The relevance of these theories, the classical theory and the neoclassical theory, to this study lies in the primacy they give to the virtues of comparative advantage, specialisation, and division of labour, and the emphasis laid on the concept of aggregate efficiency improvement from free trade. This stems from production and consumption efficiencies.

3.1.2 The Neoclassical Factor Endowment Theory

The neoclassical theory of external trade was developed out of the need to modify some of the assumptions of the classical theory. This was in a bid to providing more realistic information for the existence of differences in comparative costs among nations. Developed by Eli Heckscher and Bertil Ohlin, and popularly called the H-O neoclassical factor endowment theory, the theory postulates that international specialisation and trade arise from differences

in comparative costs which in turn arise from inter-country differences in relative factor endowment (mainly land, labour and capital). Thus some countries, like the United State, have large amount of capital per worker and are thus designated capital-abundant countries. Others like Nigeria, India and Colombia, have little capital and much labour and are thus designated labour-abundant countries. The theory goes on to argue that capital-abundant countries will tend to specialise in products which use capital intensively in their production technology. These products will be exported in exchange for the land- or labour-intensive products that are produced by countries that are relatively endowed with abundant labour and land. By being endowed with large labour reserve and primary products, the theory posits that Nigeria, for instance, will benefit by specialising in labour-intensive products as against capital-intensive manufactures. The factor endowment trade theory enables us to describe analytically the impact of economic growth on trade patterns and the impact of trade on the structure of national economies and on the differential returns or payment to various factors of production (Todaro and Smith, 2003).

However, there are exceptions to the Heckscher-Ohlin theory, which are to do with the assumptions that Ohlin drew. One assumption was that the prices of the factor depended only on the factor endowment. This is however untrue as factor prices are not set in a perfect market. There are factors worthy of consideration such as legislated minimum wages and benefits which exert upward pull on the cost of labour to a point greater than the value of the product than many workers can produce (Ball, McCulloch, 1999). Many economists attempted to disprove the Heckscher-Ohlin theory. The most notable effort was by the 1973 Nobel Prize Winner in Economics, Prof. Wassily Leontief. His paradox was self named (Leontief Paradox) and disputed the theory as a predictor of the direction of trade. This

paradox failed to empirically validate the country based Heckschler-Ohlin theory (Mankiw, 1997).

3.1.5 Contemporary Trade Theories

Most students of international trade have long had a sneaking suspicion that conventional models of comparative advantage do not give an adequate account of world trade (Paul Krugman, 1983). This is especially true of trade in manufactured goods. Both at the macro level of aggregate trade flow and at the micro level of market structure and technology, it is hard to reconcile what we see in manufactures trade with the assumptions of standard trade theory. In particular, much of the world's trade in manufactures is trade between industrial countries with similar relative factor endowments; more so, much of the trade between these countries involves two-way exchanges of goods produced with similar factor proportions. Where is the source of comparative advantage?

Furthermore, most manufacturing industries are characterized by at least some degree of increasing returns (especially if we include dynamic economies associated with R & D and the learning curve.). Not coincidentally, most manufacturing industries are also imperfectly competitive to at least some extent. Can a model, which assumes constant returns, exogenous technology, and perfect competition, give adequate guidance for trade policy in these industries? In response to these questions, many economists have proposed alternatives to conventional trade theory. The alternatives include the International Product Life Cycle Theory (IPLC), Country Similarity Theory, the Vent-for-Surplus Theory, the Dynamic

Comparative Advantage Theory, the Availability Theory and the Theory of Strategic Trade Policy.

3.1.6 The International Product Life Cycle Theory (IPLC)

The International product life cycle theory is a valuable instrument in analysing the effects of product evolution on the global scale. The IPLC generally applies to established companies of industrialised countries who expand their product range. The theory is broken up into five major areas;

Release: As competition in industrialised countries tends to be fierce, 'Manufactures are therefore forced to search constantly for better ways to satisfy their customer needs' (Ball et al, 1999). The core elements in new product design are gained from customer feedback from previous models. Once the product enters the domestic market and begins to create a positive reputation, the demand increases and hence we come to an end of the first stage of the IPLC.

Exports: As the product receives positive customer response, the international demand for the product begins. The manufacturer begins exporting to increase its market share. An example of this was the personal computer (PC) craze of the early 80's. In 1985 55,000 PCs were sold in the United States, by 1984 the industry had experienced a 136-fold increase to 7 million PCs (Richter-Buttery, 1998)

Foreign Production begins: As demand increases with the new global market, it becomes economically feasible to begin local production in various nations. By sharing technology on the manufacturing of the product, the company has lost an advantage. The end of this stage signifies the highest point in the IPLC Theory.

Foreign Competition in exports markets: This is a threatening stage for local manufacturers. Local manufactures have gained experience in producing and selling their product; hence their costs have fallen. As they have saturated their initial market, they may begin to look elsewhere (i.e. other nations) to promote their product. The reason that this is threatening for manufacturers is that this other nation may have a competitive advantage and this places stress on their market share.

Import Competition in Home Market: If the competitors have a competitive advantage, or they reach the economies of scale needed, they will enter the original home market. At this stage the competitors will have quality products which have the potential to undersell the original manufactures. Eventually they will be pushed out from the market and imports will supply the home nation. As the product's technology becomes more renowned, developing nations will enter the market. This will begin the International Product Life Cycle again, as these nations have a competitive edge with their low labour costs. 'With future innovations and new products and services the eventuality is that its value and hence its price is likely to diminish' (Lendrum, 1995).

The IPLC theory does have its disadvantages. Perhaps the most recognisable is the assumption that products are released initially in the domestic markets. Many globalised companies tend to release their new product lines internationally, not domestically; hence this theory cannot be applied to many of today's products.

3.1.5 Dynamic Comparative Advantage Theory

Manufacturers are usually the major focus of the dynamic comparative advantage theories and emphasis is placed on the role of innovations and technological advances over primary products exports. The key point of these theories is that human capital (i.e. knowledge and skill) as well as technical ingenuity are also important determinant of trade. Under this broad category, we have the limitation gap (Postner, 1961), innovation gap and product cycle (Vernon, 1966). The basic hypothesis of these theories is that a country that innovates a good will export it, at least for a period of time. The dynamic comparative advantage theories are applicable only to certain categories of manufactured goods and not all manufactured goods. The technology or innovations related theories concern industries variously described as science-based, research-intensive, high-technology or just knowledge industries. Elements of theory are only applicable to a few industrialized countries with well-endowed research and development that are on the cutting edge of knowledge. The theories are however, incomplete and can therefore, not replace the neo-classical theory of external trade.

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3.2.0 The Size and Distance Theory of External Trade

This theory, which was postulated by Linnemann and Tribergen considers the effect of distance on external trade. In traditional trade theories, it was assumed that there was no transportation cost and information is perfect. This implies that distance was not a barrier to trade. However, what holds in the real world differs as distance is expected to be a barrier to trade. The acceptance of the relevance of distance to the occurrence or intensity of trade flows also agrees with customs union theory or the theory of regional integration. Also, the vast difference in the degree of mobility of resources among countries as opposed to within

countries shows that distance is a barrier to trade. For instance, immigration laws, citizenship requirements and different licensing requirements restrict labour mobility. Financial transactions are also unrestricted within countries while international capital flows are often prohibited or limited by governmental authorities. Land is virtually immobile except through wars. Economic units located within the same country are subject to the same rate of taxation, raise funds from the same capital market and use much of the same economic infrastructure such as communication, transportation and information facilities. Thus, the whole economic environment of individual economic units is more homogenous within the country that it is between economic units located in different countries. The socio-political environment also differs greatly between countries and it is more uniform within countries. Households and firms operate within the same legal framework, social institutions and are ruled by the same government. Similar habits and business customs prevail within national boundaries making it easier for business men to deal with other economic units even when the distance dictates otherwise. These conditions break down with trade between nations, no matter how close they are. It is therefore presumed that, all things being equal, the nearer the trading partners, the higher the flow of trade.

3.1.7 Country Similarity Theory

It has long been known as a theoretical point that increasing return can be alterative to comparative advantage for the explanation of trade. It has also been suspected by many economists that scale economies in fact plays a major role in manufactures trade among the industrial countries- perhaps more important than differences in factor endowments (the problem of making this more than just a wise remark has been the difficulty of introducing scale economies into formal models of trade)(Paul Krugman, 1983). In the last few years,

however, a relatively coherent view of the role of scale economies in trade has finally emerged. This view- which might rather be grandly called the "inter industry trade" – was developed by a numbers of authors, the most prominent of which was a Swedish economist named Steffan Linder (Mahoney, Trig, Griffin, Pustay, 1998), who found the recent development in monopolistic competition theory the modelling techniques needed.

The basic idea of the theory is extremely simple. We distinguish between two kinds of trade; inter industry trade based on comparative advantage, and the inter-industry trade based on economies of scale. The industrial structure of the country's production would be determined by its factor endowment. Within each industry, however, there is assumed to be a wide range of potential products each produced under condition of increasing returns. The implications for trade pattern are straightforward and empirically plausible. Each country will be a net exporter in industries in which it has comparative advantage, just as conventional theory suggests. Because of intra-industry specialisation, however, each country will import some products even in industries in which it is a net exporter, and vice versa. That is there will be intra-industry as well as inter-industry trade. Furthermore the more similar countries are in their factor endowment the less different there industrial structures will be, and hence the more their trade will have an intra-industry character. This gives a plausible justification for the name, Country Similarity Theory.

3.2 REVIEW OF EMPIRICAL LITERATURE

Trade openness and economic performance in both developed and developing countries have spawned considerable attention by a number of empirical studies. Empirical evidence on the link between openness and performance variables has been mixed. While some studies have found a positive and significant relationship between them, others have obtained insignificant and sometimes negative relationship. In order to have a systematic examination of the existing works, a step-by-step approach of looking at the findings of other researchers is adopted. This involves the broad categorization and individual review of the empirical works on trade openness and some fundamental performance variables like employment, manufacturing output, capacity utilization, manufacturing productivity, inflation, interest rate and exchange rate.

3.2.1 Trade and Output

In his work, which empirically tested the openness and growth hypothesis, Chales D. Skipton (2001) filled the gap of methodological inadequacy in openness-growth nexus. He developed and utilized a multi-pronged Trade Openness Index to examine the impact of prolonged openness on economic growth. The Trade Openness Index which was aimed at correcting the methodological inadequacy inherent in openness measures of earlier researches was constructed from the estimates of the actual size of the trade sector relative to the expected, as well as data for tariffs, black market exchange premiums and restrictions on capital movement. Covering 97 countries and four time periods (1980 – 1982, 1985 – 1987 1990 – 1992 and 1995 – 1997), he submitted that the economies that are more open over lengthy periods of time grow faster and achieve higher per capital income levels than economies that are more closed. Openness continues to exert a positive and statistically significant impact on

both growth and per capital income levels than economies that are more closed. Openness continues to exert a positive and statistically significant impact on both growth and per capita income even after differences in the variability of inflation and the security of property right are taken into account.

Investigating the long-standing controversy of economic growth-openness nexus in the Nigerian economy, Saibu (2004) found that economic growth and openness were co-integrated and thus there was a long run relationship between them. Using the Granger causality test, the paper found only the presence of a unidirectional causality from economic growth to trade openness. He further opined that countries with well-developed financial market benefit from openness while countries like Nigeria with a less-developed financial market lose more with increasing openness. The trade sector therefore could not be excused from the blame for the overall economic recession in Nigeria. The import dependent (industrial) sector, which is vulnerable to adverse development in the trade sector, seemed weak to absorb the shocks from disturbances from the international market.

Ekpo (2005), in his empirical work on Nigerian economy, examined openness and economic performance for the period 1970 – 1992 using an aggregate production function. Using trade share and the black market exchange rate premium as broad measure of openness, Ekpo (2005) disproved the openness-growth hypothesis. His research findings showed that capita stock and labour contributed positively to output during the period reviewed. However, increase in trade shares decreased output while a one per cent increase in the black market premium rate reduced output by less than one per cent. He further asserted that though growth in exports and imports by less than one per cent. He further asserted that though growth in

exports and imports continue to have significant influence on output, export maintained its traditional role of positive influence, while the results estimated using import were negative and significant.

3.2.2 Trade Openness and Economic Growth.

There are several studies that provide a useful framework for analyzing the relationship between economic growth and export. For example, Feenstra (1990), Segerstrom, Anant and Dinopoulos (1990), Rivera-Batiz and Romer (1991), and Baldwin and Forslid (1996). The idea of these studies is that, exports increases productivity because of their impact on economics of scale, technology transfer, improving skills of workers, and increasing capacity of the economy.

Grossman and Helpman (1991) and Edwards (1992) emphasized the role of free trade in generating technological progress. A higher degree of openness allows smaller countries to absorb technology developed in advanced nations at a faster rate and thus grow, in equilibrium, more rapidly than economies with a lower degree of openness. Liu, Haiyan and Romily, (1997) argued that economic growth could cause trade expansion. And there is possibility of feedback effects from economic growth to exports.

Feder (1982) showed that exports can contribute to economic growth in a variety of ways; the use of large capacity utilization, economies of scale, incentives for technological progress and pressure of foreign competition, leading to more efficient management. Thus, marginal factor productivities would be higher in export industries than in non-export industries. He estimated that, a ten percent increase in export without drawing resources from the non-export sector the productivity would increase by 1.3 percent.

Ram (1985) applied causality tests on a sample of 73 less developed countries to investigate the relationship between exports and economic growth for the periods 1960-1977, his study established that exports performance was an important determinant for economic growth.

However, more recent studies that have used longer time periods and recent advances in time-series econometrics in investigating the casual relationship between exports and economic growth have failed to provide significant support for the export-promotion development strategy. For example, Jung and Marshall (1985) analysed the lead and lag timing patterns between growth rate of real exports and growth rate of real output for 37 developing countries separately; in only four cases (Indonesia, Egypt, Costa Rica and Ecuador) they found evidence to support the export-promotion hypothesis. Dorado (1993) using data for more than 80 countries for 1961-1986 period, concluded that the granger causality test offers weak support for the notion of trade as an 'engine' of growth.

The role played by FDI in export performance of developing countries is one of the intensely debate issues in the literature of development economics. Hein (1992) and Lucas (1993) pointed out exports from host countries could lead FDI if outward-oriented export promotion is successful. In addition, the argument of causality from export to FDI can also rationalize from the supply side.

Liu and Wei (2001) applied Granger causality test to investigate possible casual relationships among three variables, FDI, export and imports in China based on a panel data covering 19 regions over the period 1984-1998. They found there is a one-way complementary causal link from the growth in the inward FDI stock in China to the growth of China's exports to the regions.

In the research paper published by the United Nation's Department of Economic and Social Affairs (2005), Eddy Lee argued that it is difficult to draw any firm conclusions on the impact of trade liberalization simply on the basis of associations between changes in trade on the one hand and growth and employment performance on the other. The first problem is one of establishing causality between trade liberalization, growth and employment performance. An increase in exports and the trade-to-GDP ratio cannot automatically be attributed to the effects of trade liberalization, as other factors are involved. The growth in exports and the trade-to-GDP ratio could be the result of higher growth achieved through a successful development strategy or favourable external market conditions. This is especially so since export growth is typically a major component of overall growth and the two are strongly correlated.

The results of the research were consistent in the two approaches adopted: multi-country studies and country studies. In the three Asian emerging economies studied, trade growth had a generally favourable effect on employment and wages in manufacturing. Apart from stimulating output growth, trade growth has had the effect of increasing the employment intensity of manufacturing output. Moreover, unskilled (or low-skilled) workers have benefited more than skilled workers because employment growth has been faster in export-oriented industries, which mainly employ low-skilled workers, than in other industries. In contrast to what was the case in the Asian countries, the study found unfavourable effects of trade growth on employment and wages in Latin American countries such as Brazil and Mexico. In these countries, employment in manufacturing has either not risen appreciably or has fallen. Real wages of unskilled workers have tended to decline and the wage differential between skilled and unskilled workers has increased rather sharply. The studies suggest that these trends may be attributable to unfavourable initial conditions (e.g. extremely unequal

distribution of assets), problems of macroeconomic management and over-dependence on external resources, but more work is required to develop adequate insights.

The sharply contrasting employment effects between countries suggest that country-specific and contingent factors are important, and the value of any broad generalization on the link between trade liberalization and employment is therefore undermined.

In their paper, (David Tarr and Stephen Matusz ,2000) summarized the empirical research on the adjustment costs of trade liberalization. They began with three studies that empirically examined employment effects from thirty separate economy-wide episodes of trade liberalization in developing countries. Their studies revealed that it was difficult to disentangle the effects of trade liberalization form other events occurring simultaneously, but generally, manufacturing employment increased subsequent to the trade liberalization. Transition economies are a special case where manufacturing employment declined after liberalization, but employment decline was faster in transition economies that did not liberalize. Next, they surveyed studies that quantify the costs of adjustments from trade liberalization. These include economy-wide studies of Australia and Uruguay as well as the studies by several authors of trade liberalization in 22 industries in the US and UK. In general, these studies found that the benefits of trade liberalization ware vastly greater than the costs – typically for each dollar of adjustment costs there are typically more than 20 dollars of benefits from trade liberalization. They then reported on two studies small and medium size enterprises in 8 African economies. It was found that small and medium size enterprises in these countries are highly dynamic (even when compared to industrialized countries) making speedy adjustment to trade reform more likely.

However both researchers agreed that it is necessary to apply caveats to most of the studies they surveyed regarding conclusions with respect to adjustment costs; thus, it is necessary to be cautious regarding conclusions based on any few of them. Most notably, while there are numerous studies on the effects of trade liberalization on aggregate employment in developing countries, virtually all studies that quantified adjustment costs have been done in industrialized countries. Collectively, however, the weight of so many studies of various types all pointing in more or less the same direction makes it difficult to avoid the conclusion that adjustment costs are very small in relation to the benefits of trade liberalization.

3.3 Conclusion

In conclusion various researchers have conducted different research work on the developing countries in a view to find a last solution to the problem of manufacturing sector in different dimensions especially in African countries .notably Nigeria too have conducted so many research on how to revive the manufacturing sector both medium and large scale section even on how to create more employment for the masses, on how to improved technological innovation so as to compete with the global market . The only study that is related to my research focuses more on productivity; market structure and trade liberalisation in Nigeria whereby the researcher discover that the policy of trade liberalisation of government and reduction in tariff open up the economy to foreign direct investment while the researcher discover that most of the companies performing very well belong to the multinationals i.e. foreign investors and hence causing negative impact on productivity to local manufacturers where by the study time frame is within the period of 1988 to 1990 of which is out of date whereby the focuses is mainly on selected firms not the whole economy but also failed to

emphases more on the effect of trade liberalisation having on the manufacturing sector performance as a whole .

In summary there are some areas of concern as for future research have been identified due to the fact that past researchers only evaluated the performance of manufacturing sector within the boundaries of productivity ,energy, technological adoptability and little or few on trade liberalisation .Hence there is little or no studies that have compared Nigeria manufacturing sector performance with other developing nations, also researchers have been able to identified a few strategies that have been successfully utilized by some developing countries and this can be applied to improve Nigeria manufacturing sector in various dimensions, there may be many clues Nigeria can take for those developing nations that have succeeded in this sector .The detailed account of strategy and policies can be adopted by Nigeria in order to attain high –quality performance in the manufacturing sector .

CHAPTER FOUR

METHODOLOGY.

4.0 Introduction

This chapter focuses on presentation of econometric models based on the theoretical arguments in the literature. The models of this paper are estimated by using annually time-series data from year 1975-2010. The Elliot, Rothenberg, and Stock (1996) (ERS) and Phillips and Perron (1988) (PP) and KPSS unit-root test statistics are used to examine the stationary of the data series. The Johansen cointegration testing approach is used to test the long-run relationship of Manufacturing output index, Capacity utilization, inflation, Total Domestic Demand and Trade openness. Moreover, Granger causality to be tested among manufacturing output, trade openness and total domestic demand are to examine the manufacturing output hypotheses.

4.1 Model Specification and Techniques of data Analysis

The econometric models to be used to examine in this study takes manufacturing output as dependent variable, and trade openness, capacity utilization, total domestic demand and inflation variables are considered as independent variables. In the attempt to determine the relationships between manufacturing output and trade openness, in Nigeria, the general model of this study is specified as:

$$Yr_t = \alpha_1 + \beta_1 TO_t + \beta_2 TT_{t-1} + \beta_3 CU_t + \beta_4 IF_t + e_1$$

$$Yr_t = f(CU_t, TO_t, TT_{t-1}, IF_t)$$

Where:

Y_t = manufacturing output

Cu_t = the capacity utilisation in the manufacturing sector

TO_t =the measure of trade openness

TT_{t-1}= Total Domestic Demand lagged by a year

IF_t= Inflation

Then, in the next section, it is aim to explain the relevant econometrics procedures in testing time-series data. The most appropriate estimation techniques will be discussed under various conditions to achieve the objectives of this study.

4.2 Operational Definition

Trade openness (TO_t)

Trade openness is a concept that has been riddled with a long term controversy as regards its measurement. Various types of measurement have evolved to correct the methodological errors of the previous ones. These include Sachs and Warner Openness Index, Leamer's Index, Black Market Premium, Average Import of Tariff on Manufacturing and trade-to-GDP ratio. What determines the choice of approach of measurement is partly the ease of getting relevant data since each country is faced with some circumstantial peculiarities. Hence, the proportion of trade flow to GDP is adopted in this study of the Nigerian economy as a convenient measure of trade openness. Specifically, trade openness index is calculated as follows:

$$\text{Trade Openness Index} = \frac{\text{Export} + \text{Import}}{\text{GDP}}$$

Manufacturing Output (Y_t)

This refers to the final output contributed by the manufacturing sector to the overall Gross Domestic Product. Out of the two major methodological approaches for the calculation of manufacturing output, the quantity approach and the value of output approach, the latter method presents a suitable approach to the study under consideration. Therefore, manufacturing output as one of the independent variables measuring manufacturing performance is calculated as the value of the final output of the manufacturing sector of the Nigerian economy.

Manufacturing Capacity Utilisation (Cu_t)

This is a measure of actual output as a percentage of installed capacity or potential output. Installed capacity is the maximum output firms could produce with their existing equipment. Because demand fluctuates and equipment is liable to break down, firms normally aim to have more capacity than the average level of demand, and less than 100 percent capacity utilisation. Actual capacity utilisation is expected to fluctuate; if it remains persistently above its normal level, this suggests that investment in new equipment would be profitable. If capacity utilisation remains persistently below its normal level, this suggests that some equipment, normally the oldest and the least productive, is not worth the cost of maintaining it and should be scrapped.

Domestic Demand (TT_{t-1})

Domestic demand is the total domestic absorptive capacity; the aggregate demand generated within the domestic economy. It is the sum total of private consumption expenditure, government expenditures and private and public investment expenditure. This can be proxied by the level of Gross Domestic Product (GDP).

4.3 MEASUREMENT OF VARIABLES

4.3.1 Unit Root Tests

The unit root test is meant to know the stationary of the variables. We applied the Dicker Fuller (DF) and Augmented Dicky Fuller (ADF) tests and Fuller, 1979, 1981) to investigate the stationary of variables.

Stationary, the unit root tests can be writing as below:

$$Yt = \rho Yt - 1 + Ut\ and - 1 \leq \rho \leq 1 \ldots\ldots\ldots (1)$$

Where Yt is a variable of the interest and U_t is white noise error term, which follows zero mean with a unit variance. The test follows the Tau- statistics, which is developed by Mackinnon 1991 under the null hypothesis of there exists unit root or non-stationary. If the variable is differenced once and the differenced series is stationary, then it is integrated of order one. Similarly, if it is differenced twice and the differenced series is stationary, then it is integrated of order two and so on.

To allow for more flexibility such as intercept x and to combine the, (1) equation is to be modified with p-lagged changes in the dependent variable as an additional regression, which is as follows :

$$\Delta Yt = \beta 1 + \beta 2t + \delta Yt - 1 + \sum_{t=1}^{\rho} \propto i\Delta Yt - i + \epsilon t \ldots\ldots\ldots (2)$$

Where is the difference operator, t is the time trend, is white noise error term and are paremeters , which is to be estimated. It follow the suggestion of Engle Yaoo (1987) to use Akaike Information Criterion (AIC) for determining the optimal specification of equation.

The appropriate order of the model is determined by computing the above equation over a selected grid of values of the number of lag k and finding that value of p at which the AIC attains its minimum. The distribution of the ADF statistic is non- standard and critizal values tabulated by Mc Kinnon (1991) are used.

$$\Delta Y_t = \beta_1 + \beta_{2t} + \delta Y_{t-1} + \sum_{i=1}^{\rho} \alpha_i \Delta Y_{t-i} + \varepsilon t \qquad (4.2)$$

where, Δ is a first-difference operator, Y_t is the relevant time series, ε_t is the error term, while β_1 is the set of parameters to be estimated. In equation (4.2), the null and alternative hypothesis in unit roots test is:

H_0: $\delta = 0$ (y_t is non-stationary)

H_1: $\delta \neq 0$ (y_t is stationary)

The H_0 hypothesis can be rejected if the calculate ratio of the coefficient δ is lower than the critical value tabulated. In other words, a unit root exists in the series Y_t (implies non-stationary) if the null hypothesis of δ equals zero that is not rejected (Gujarati, 1995).

Kwiatkowski–Phillips–Schmidt–Shin (KPSS) tests are used for testing a null hypothesis that an observable time series is stationary around a deterministic trend. Where several John von Neumann or Durbin–Watson type finite sample tests for unit roots were developed (see Bhargava, 1986). Later, Denis Kwiatkowski, Peter C.B. Phillips, Peter Schmidt and Yongcheol Shin (1992) proposed a test of the null hypothesis that an observable series is trend

stationary (stationary around a deterministic trend). The series is expressed as the sum of deterministic trend, random walk, and stationary error, and the test is the Lagrange multiplier test of the hypothesis that the random walk has zero variance. KPSS type tests are intended to complement unit root tests, such as the Dickey–Fuller tests. By testing both the unit root hypothesis and the stationarity hypothesis, one can distinguish series that appear to be stationary, series that appear to have a unit root, and series for which the data (or the tests) are not sufficiently informative to be sure whether they are stationary or integrated.

The Phillips–Perron test (named after Peter C. B. Phillips and Pierre Perron) is a unit root test. That is, it is used in time series analysis to test the null hypothesis that a time series is integrated of order 1. It builds on the Dickey–Fuller test of the null hypothesis

$$\delta = 0 \text{ in } \Delta y_t = \delta y_{t-1} + u_t,$$

where Δ is the first difference operator. Like the augmented Dickey–Fuller test, the Phillips–Perron test addresses the issue that the process generating data for y_t might have a higher order of autocorrelation than is admitted in the test equation - making y_{t-1} endogenous and thus invalidating the Dickey–Fuller t-test. Whilst the augmented Dickey–Fuller test addresses this issue by introducing lags of Δy_t as regressors in the test equation, the Phillips–Perron test makes a non-parametric correction to the t-test statistic. The test is robust with respect to unspecified autocorrelation and heteroscedasticity in the disturbance process of the test equation.

4.3.2 Cointegration Test

The notion of cointegration, which was given a formal treatment in Engle and Granger (1987), makes regressions involving I (1) variables potentially meaningful. It is provides the long-run relationship between the economic variables and the deepest idea for cointegration test is relevant to the functional form of the model.

In other word, the variables can be cointegrated if two (or more) series are linked to form an equilibrium relationship in the long-run, and the variables are stationary at same order of integration, i.e. cointegrated at I(1). If variables non-stationary at their level and stationary at the first difference and there is also exist linear combination among the stationary variables, then these non-stationary series are said to be cointegrated. The stationary linear combination is called the cointegration equation (Engle and Granger, 1987).

Testing for cointegration can be done by using the approach that was proposed by Johansen (1988). Johansen developed a maximum likelihood estimation procedure that allows one to test for the number cointegrating relations. Although there're exists a number of cointegration tests, Johansen's test has a number of desirable properties, including the fact that all test variables are treated as endogenous variables. If the null hypothesis of no cointegration vector can be rejected, it indicated that there is a long-run relationship among the variables in the model. By using Johansen approach, it will involve the test of cointegrating vectors.

where, $\Pi = \alpha\beta'$

$$Y_t = \prod_1 Y_{t-1} + \prod_2 Y_{t-2} + \ldots + \prod_k Y_{t-k} + \varepsilon_t \quad t = 1,2, \ldots, n \qquad (4.3)$$

Where Y_t is N×1 vector of stochastic variable, $\prod_1, \prod_2, \ldots, \prod_k$ is the n×n parameter and ε_t is the error term. When Y_t is non-stationary, the above equation can be written as below:

$$\Delta Y_t = \mu + \Gamma_1 \Delta Y_{t-1} + \Gamma_2 \Delta Y_{t-2} + \ldots + \Gamma_k \Delta Y_{t-k} + \prod Y_{t-1} + \varepsilon_t \qquad (4.4)$$

where, $\Pi = \alpha\beta'$

In this equation, the element of α is known as the adjustment parameters in the vector error correction model and β' shows the cointegration vector. This procedure is used to test the existence of a long run relationship among the variable and in this study, the main variables are manufacturing output, trade openness, inflation and total domestic demand.

It is important to test whether a stationary long-run relationship exist among the series because failure to account for cointegration will cause misspecification and this might undermine the validity of parameter estimates, thus a test for cointegration can be thought of a pre-test to avoid spurious regression (Engle & Granger, 1987).

4.3.3 Error Correction Model

The cointegrating regression so far considers only the long-run property of the model, and does not deal with the short-run dynamics explicitly. Clearly, a good time series modelling should describe both short-run dynamics and the long-run equilibrium simultaneously. For this purpose now need to develop an error correction model (ECM).

Error correction models are based on the assumption that two or more time series exhibit an equilibrium relationship that determines both short-run and long-run behavior. It integrates the short-run dynamics with the long-run equilibrium without losing long-run information. If y_t and x_t are I(1) process and are not cointegrated, we might estimate a dynamic model in first differences. In following equation,

$$\Delta y_t = \alpha_0 + \alpha_1 \Delta y_{t-1} + \gamma_0 \Delta x_t + \gamma_1 \Delta x_{t-1} + u_t$$

where u_t has zero mean given $\Delta x_t, \Delta y_{t-1}, \Delta x_{t-1}$, and further lag.

If y_t and x_t are cointegrated with parameter β, then we have additional I(0) variables that we can include in equation (4.5). Let $s_t = y_t - \beta x_t$, so that s_t is I(0), and assume s_t has zero mean. If we include one lag of s_t:

$$\begin{aligned} \Delta y_t &= \alpha_0 + \alpha_1 \Delta y_{t-1} + \gamma_0 \Delta x_t + \gamma_1 \Delta x_{t-1} + \delta s_{t-1} + u_t \\ &= \alpha_0 + \alpha_1 \Delta y_{t-1} + \gamma_0 \Delta x_t + \gamma_1 \Delta x_{t-1} + \delta(y_{t-1} - \beta x_{t-1}) + u_t \end{aligned} \qquad (4.6)$$

where, $E(u_t | I_{t-1}) = 0$, and I_{t-1} contains information on Δx_t and all past values of x and y. The term $\delta(y_{t-1} - \beta x_{t-1})$ is called the error correction term, and equation (4.6) is an example of the Error Correction Model.

An error correction model allows us to study the short-run dynamics in the relationship between y and x. If consider the model without lags of Δy_t and Δx_t:

$$\Delta y_t = \alpha_0 + \gamma_0 \Delta x_t + \delta(y_{t-1} - \beta x_{t-1}) + u_t \qquad (4.7)$$

where $\delta < 0$. If $y_{t-1} > \beta x_{t-1}$, then y in the previous period has overshot the equilibrium; because $\delta < 0$, the error correction term works to push y back toward the equilibrium. Similarly, if $y_{t-1} < \beta x_{t-1}$, the error correction term induce a positive change in y back toward the equilibrium. Thus, all the variables in the ECM are stationary, and therefore the ECM has no spurious regression problem.

4.3.4 Vector Autoregressive Models (VAR)

Multivariate simultaneous equations models were used extensively for macro econometric analysis when Sims (1980) advocated vector autoregressive (VAR) models as alternatives. At that time longer and more frequently observed macroeconomic time series called for models which described the dynamic structure of the variables. VAR models lend themselves for this purpose. They typically treat all variables as a priori endogenous.In this model, we model several series in terms of their past, that is where the word vector comes from. This model is popular in empirical macroeconomics literature, because it is related to the notion of cointegration and causality. If we have two series, $x_t \; and \; y_t$, a vector autoregression consists of equations that look like:

$$x_t = \delta_0 + \alpha_1 x_{t-1} + \gamma_1 y_{t-1} + \alpha_2 x_{t-2} + \gamma_2 y_{t-2} + \cdots \quad (4.7)$$

and

$$y_t = \eta_0 + \beta_1 x_{t-1} + \rho_1 y_{t-1} + \beta_2 x_{t-2} + \rho_2 y_{t-2} + \cdots (4.8)$$

where each equation contains an error that has zero expected value given past information on $x\ and\ y$.

VAR models can be useful for forecasting. Equations such as (4.8) allows us to test whether, after controlling for past x, past y help to forecast x_t.Generally, we say that y Granger causes x if

$$E(x_t|I_{t-1}) \neq E(x_t|J_{t-1}), \qquad (4.9)$$

where I_{t-1} contains past information on $x\ and\ y$, and J_{t-1} contains only information on past x. When (4.9) holds, past y is useful, in addition to past x, for predicting x_t. The term "causes" in granger causes should be interpreted with caution. The only sense in which y causes x is given in (4.9). In particular, it has nothing to say about contemporaneous causality between $x\ and\ y$, so it does not allow us to determine whether y_t is an exogenous or endogenous variable in an equation relating $x_t\ to\ y_t$.

VAR model is truly simultaneous system in that all variables are regarded as endogenous considering the feedback effects in the system, and it can estimated by ordinary least squares without resorting any system method such as two-stage least squares (Shan and Sun, 1998). The following statistical tests will be used to test the validity of the regression analysis.

4.4 Scope of the Study

The study is restricted to the Nigerian economy and is expected to explore the happenings in the foreign trade and the manufacturing sectors. The study is limited to time span of three decades ranging from 1975 to 2011. The choice of time span is informed by the need to incorporate the effect trade openness both before and after the neo-liberal re-emergence. The credibility of the findings is largely dependent on the veracity of the secondary data to be used. This is a likely limitation the study is expected to scale through.

4.5 Data Collection Procedures

Given the nature of this research which requires the analysis of past economic happenings to provide tools for future decision making, this study will draw substantial data from secondary sources. Data will be sourced from publications of the Central Bank of Nigeria (CBN) notably: Statistical Bulletin, World Bank Report, IMF, Economic and Financial review and Annual Report and Statement of Accounts. Also, data sourced from robust internet research and publications of the Manufacturers Association of Nigeria (MAN) will be employed.

4.6 Techniques of Data Analysis

This study is strongly predisposed toward the achievement of the research objectives stated in chapter one. To this end, both descriptive and inferential statistics are adopted. Tabulation, graphical representation and trend analysis are employed as sufficient tools for the achievement of objective while econometric method involving Unit Root test, and Error Correction Model, Granger causality test and VAR is going to be used to accomplish the objective.

CHAPTER FIVE

RESULT AND ANALYSIS

5.1 Introduction

This chapter discusses the results and findings which was produce by the econometric techniques that was presented in Chapter 4. The results and findings are presented in three sections: Augmented Dickey-Fuller (ADF), Phillips-Perron test (PP) and Kwiatkowski-Phillips-Schmidt-Shin test statistics (KPSS) test for stationary of series, Bound test approach for co-integration, Granger Casuality test, and VAR models

5.2 Results of Unit Root Tests

To test the order of integration of the variables, this study used the standard tests for unit root,(ADF), (KPSS) and (PP) will be employed. As mentioned earlier, the stationary test of the time series is needed in order to avoid the problem of spurious regression.The results of unit root tests are presented in Table 5.1. These tests take into consideration of three types: constant without trend and constant with trend on a scale of at level, first differential and second differential.

Table 5.1

ADF,PP AND KPSS UNIT ROOT TEST

Variable	ADF		PP		KPSS		
	Constant	Trend	Constant	Trend	Constant	Trend	Result
LY_{LEVEL}	-3.542561**		-3.785717***		0.347000*		I (0)
LTO_{LEVEL}	-0.055024	-6.312787***	-0.291426	-1.834108	0.584160**		I (0)
1^{ST} Diff			-6.283474***				I (1)
LCU_{LEVEL}	-1.590140	-0.714628	-1.696167	-0.827323	0.263563	0.181548**	I (0)
1^{ST} Diff	-4.073742***		-4.105078***				I (1)
LIF_{LEVEL}	-3.791590***		-3.389947**		0.191366	0.098407	I (0)
1^{ST} Diff					0.500000**		I (1)
LTT_{LEVEL}	-0.139925	-2.083423	-0.139925	-2.077686	0.690107**		I (0)
1^{ST} Diff	-6.532096***			-6.530305***			I (1)

Notes: ***, **, * denotes rejection of the null hypothesis of a unit root at the 1%, 5%, and 10% significance level. No asterisk indicates that the series is non-stationary

The unit result above shows that all the variables are stationary series but with mixed mode both on ADF, PP and KPSS at level or first differentials only. All the test indicated a mixed mode .This shows that we can not proceed with conintegration test hence bound test will be employed to show whelther there is long or short run conintegration.

Table 5.2
Ardl Bound Test Approach for Cointegration

Ardl bound Test

F-statistic	95% Lower Bound	95% Upper Bound	90% Lower Bound	90% Upper Bound
1.1865	2.5531	3.9290	2.0786	3.2587
W-statistic	**95% Lower Bound**	**95% Upper Bound**	**90% Lower Bound**	**90% Upper Bound**
.025414	12.7656	19.6450	10.3932	16.2936

Lower and Upper-bound critical values are taken from Pesaran et al. (2001),

If the statistic lies between the bounds, the test is inconclusive. If it is above the upper bound, the null hypothesis of no level effect is rejected. If it is below the lower bound, the null hypothesis of no level effect can't be rejected. The critical value bounds are computed by stochastic simulations using 20000 replications Pesaran (2001). This indicate that both F-statistics and W-statistics does not fall between upper bound and lower bound hence we can say that the variables does not cointegrate both at short and long run. Hence we can proceed with VAR and granger causality test .

5.3 Vector Autoregressive (VAR) and Impulse Response Function (IRF) Analysis

A Vector Autoregressive (VAR) Model used to show dynamic effect of the impact of unitary shocks on a variety of variables. The main purpose of using the VAR model is to analyse the impact dynamic of random disturbances on the system. In this study, because the variables trade openness and manufacturing output are stationary at first difference, before analysis.

Table 5.3
Vector Auto Regression Estimates(VAR)

	Y	CU	TT	TO	IF
Y(-1)	0.645259	-0.00036	-21.3552	-4.64E-05	0.00437
	-0.20043	-0.00081	-212.196	-8.40E-05	-0.00302
	[3.21940] “**”	[-0.43599]	[-0.10064]	[-0.55507]	[1.44909]
Y(-2)	-0.077746	-0.00109	240.3099	2.62E-05	-0.00128
	-0.20889	-0.00085	-221.152	-8.70E-05	-0.00314
	[-0.37219]	[-1.28400]	[1.08663]	[0.30093]	[-0.40723]
CU(-1)	81.72967	0.974196	-1682.86	-0.01308	-0.26388
	-48.7137	-0.19808	-51573.8	-0.0203	-0.73295
	[1.67775]	[4.91823] “**”	[-0.03263]	[-0.64453]	[-0.36003]
CU(-2)	-92.10258	-0.13969	18723.41	0.007045	0.027652
	-45.4099	-0.18464	-48076	-0.01892	-0.68324
	[-2.02825] “**”	[-0.75653]	[0.38945]	[0.37232]	[0.04047]
TT(-1)	-0.000265	1.85E-07	0.289651	-1.38E-07	1.77E-06
	-0.00024	-9.70E-07	-0.25155	-9.90E-08	-3.60E-06
	[-1.11431]	[0.19107]	[1.15148]	[-1.39631]	[0.49540]
TT(-2)	0.000249	-1.06E-06	0.777542	2.59E-07	1.83E-06
	-0.00025	-1.00E-06	-0.2646	-1.00E-07	-3.80E-06
	[0.99658]	[-1.04703]	[2.93859] “**”	[2.48847] “**”	[0.48721]
TO(-1)	515.8138	0.904111	49261.94	0.459862	-8.50293
	-468.376	-1.9045	-495875	-0.19516	-7.04721
	[1.10128]	[0.47472]	[0.09934]	[2.35631] “**”	[-1.20657]
TO(-2)	-591.3103	1.709382	439435.9	0.535609	-1.63834
	-524.1	-2.13108	-554871	-0.21838	-7.88564
	[-1.12824]	[0.80212]	[0.79196]	[2.45263] “**”	[-0.20776]
IF(-1)	-1.628409	0.00903	4766.38	0.000708	0.666404

	-13.1839	-0.05361	-13957.9	-0.00549	-0.19837
	[-0.12352]	[0.16845]	[0.34148]	[0.12893]	[3.35948] *"**"*
IF(-2)	-0.310145	-0.04208	3030.364	0.007106	-0.35019
	-12.0889	-0.04916	-12798.7	-0.00504	-0.18189
	[-0.02566]	[-0.85610]	[0.23677]	[1.41061]	[-1.92529]
C	3604.228	15.31427	-2400175	0.351906	12.61617
	-1724.79	-7.0133	-1826055	-0.71868	-25.9513
	[2.08966] *"**"*	[2.18361] *"**"*	[-1.31440]	[0.48965]	[0.48615]
R-squared	0.620336	0.944391	0.973659	0.976799	0.556896
Adj. R-squared	0.455264	0.920213	0.962207	0.966712	0.364242
F-statistic	3.757985	39.06024	85.01742	96.83366	2.890656
Schwarz criterion		64.60188			

*Note1: "**" represent at 5% significant level* *2: Standard errors in ( ) & t-statistics in [ ]*

The design of this VAR model is used to measure Manufacturing output, Capacity Utilization, inflation, Total Domestic Demand and Trade Openness as the endogenous variables. From the Table 5.3, found that, manufacturing output(y) at lag of one under manufacturing output, Capacity utilization at lag2 under manufacturing output while capacity utilization at lag1, both total domestic demand and trade openness under lag1 and 2, inflation and constant and all others listed found significant at 5%. This implies that, Manufacturing output in Nigeria is influenced by its past record while trade openness, total domestic demand influenced each other. Past record of each variable has effect on manufacturing sector performance in Nigeria.

For further analysis the relationships between these variables, I use Impulse Response Function (IRF). Since the individual coefficient in the estimated VAR model is often difficult to interpret, the use of this IRF technique estimate the dynamic interactions among the variable.

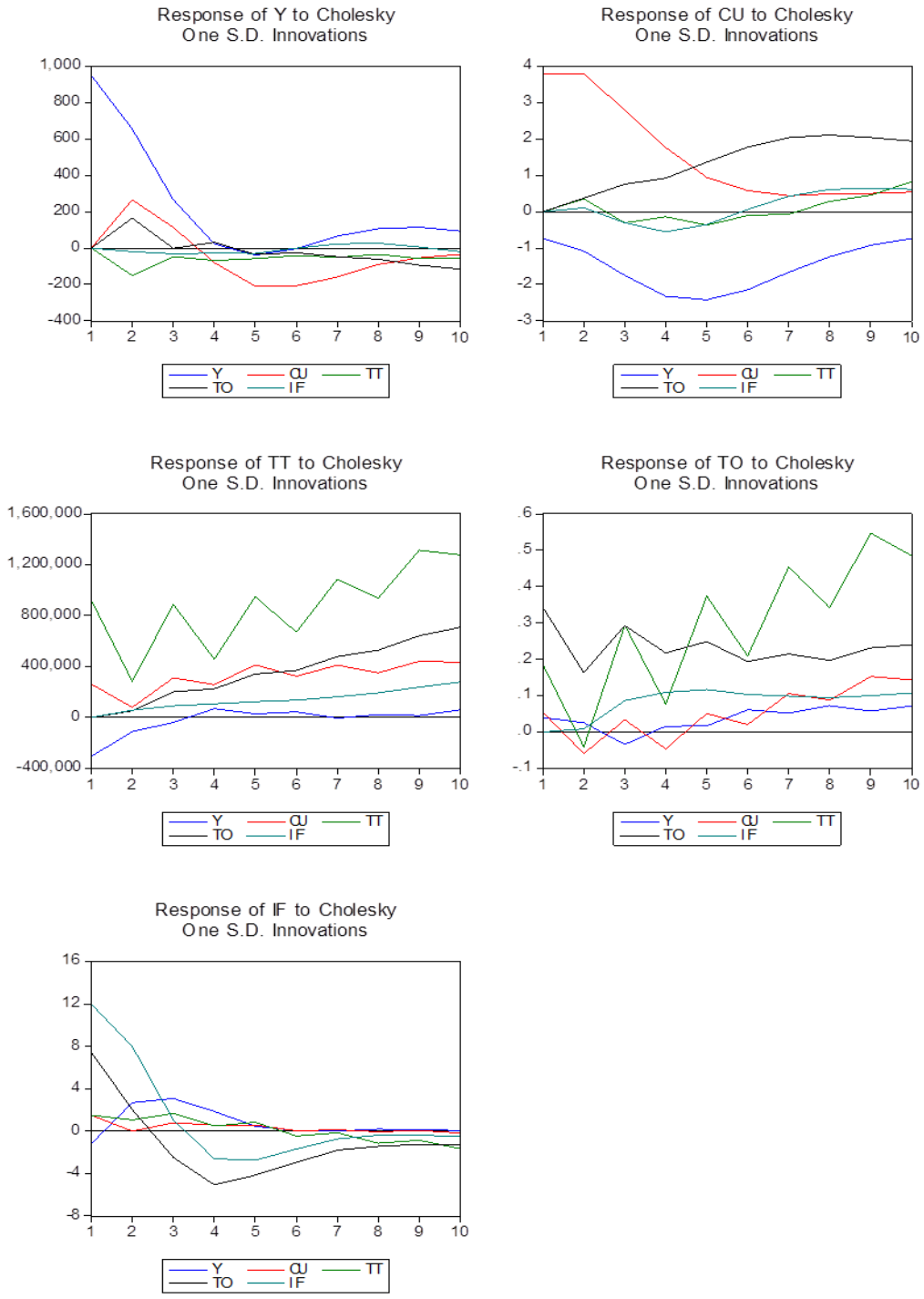

Figure 5.2 generates impulse response function from the estimated VAR, shows the combined response graphs with impulse response over 10 year period.

Table 5.4

Response of manufacturing output to one S.D. shocks in trade openness, total domestic demand, inflation and capacity utilization

Period	Y	CU	TT	TO	IF
1	949.0838	oooooo	oooooo	oooooo	ooooooo
2	612.4046	315.4061	-266.028	203.9852	-23.2536
3	269.7285	132.6847	-57.8318	21.12672	-37.1938
4	-27.327	-59.4599	-99.461	56.28054	-33.2854
5	-91.5523	-193.709	-49.4073	-19.8055	-34.7616
6	-47.1781	-198.801	-30.6363	-28.7338	-0.04876
7	40.30098	-149.308	-21.5333	-71.3047	27.22499
8	103.5588	-83.5015	3.616178	-88.6759	31.38592
9	118.2542	-38.3552	-5.12803	-112.812	7.870373
10	101.5175	-16.9128	3.039923	-120.405	-23.235
Total effect	2028.791	-291.957	-523.369	-160.344	-85.2968

As the IRF analysis indicates that, one standard deviation shock in GDP fluctuations will generate a mixture of positive and negative impact on manufacturing sector performance in Nigeria. The positive impact is the highest on the first year down with a positive trend to the third year. Then it down become negative in from year 4 to 6 while from year 7-10 it maintain a positive trend,. Over all the 10 year, the shock's of manufacturing output fluctuations has total positive effect of 2028.791% on manufacturing sector performance.

Table 5.5

Granger Causality

Null Hypothesis:	Obs	F-Statistics	Prob.
CU does not Granger Cause Y	30	2.39335	0.0739*
Y does not Granger Cause CU		1.13432	0.3932
TO does not Granger Cause Y	29	0.53961	0.791
Y does not Granger Cause TO		1.10267	0.4129
TT does not Granger Cause Y	29	2.73278	0.0519*
Y does not Granger Cause TT		1.29339	0.322
IF does not Granger Cause Y	30	0.40391	0.8853
Y does not Granger Cause IF		0.72546	0.6534
TO does not Granger Cause CU	29	3.51882	0.0215**
CU does not Granger Cause TO		0.42923	0.8681
TT does not Granger Cause CU	29	1.61065	0.2119
CU does not Granger Cause TT		0.38697	0.8948
IF does not Granger Cause CU	30	1.84992	0.1502
CU does not Granger Cause IF		0.97631	0.4827
TT does not Granger Cause TO	29	2.122	0.1094
TO does not Granger Cause TT		4.10868	0.0118**

IF does not Granger Cause TO	29	1.53133	0.2353
TO does not Granger Cause IF		0.53303	0.7958
IF does not Granger Cause TT	29	0.3043	0.9403
TT does not Granger Cause IF		0.19705	0.981

*Note: "***","**" and "*" represents 1%,5% and 10% significant level respectively*

Graphical view of Granger Causality test

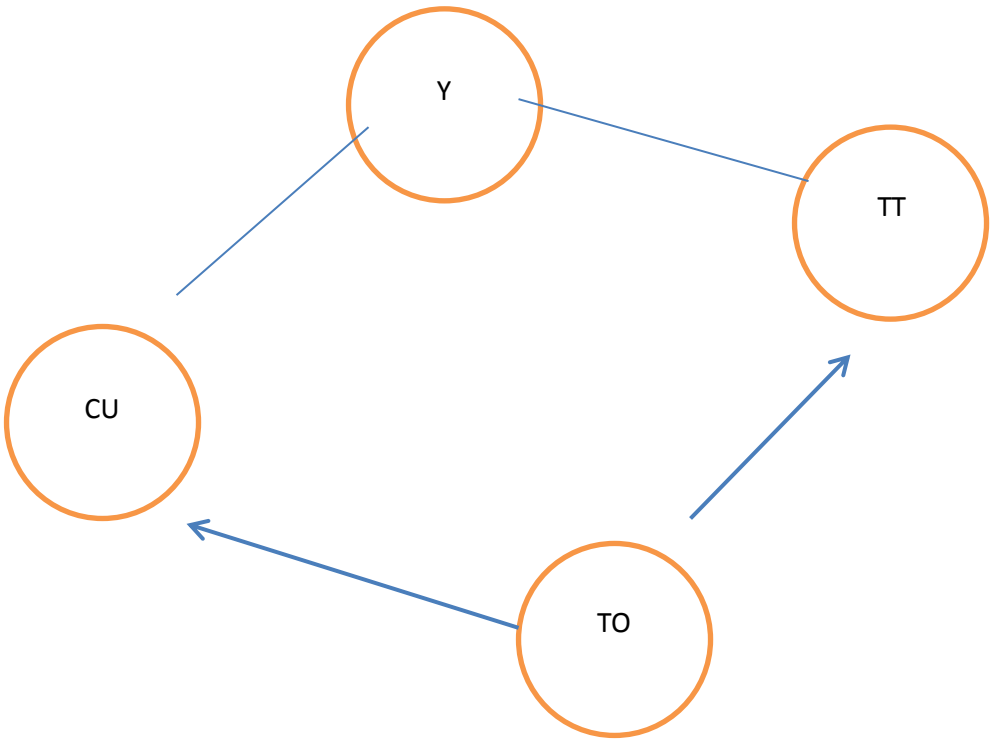

Table 5.5 presented granger causality between Manufacturing output growth rate, Trade openness, inflation, total domestic demand, capacity utilization and inflation. The result shows that the null hypothesis for manufacturing output does not granger cause capacity utilization is to be rejected, since p-value lower than the significance level (10%), so it can be

concluded that there is one way granger causality relationship between manufacturing output and capacity utilization.

Capacity utilization did not affect the rate of manufacturing output. On the other hand, the null hypothesis for capacity utilization does not granger cause manufacturing output and manufacturing output does not granger capacity utilization can not be rejected, so it can be concluded that one way granger causality relationship of mutual influence (one -way relationship) because capacity utilization determines the capacity of firm in terms of size and strength of the industry.

Result of trade openness and manufacturing capacity utilization show that the null hypothesis for trade openness does not granger cause manufacturing output is rejected at 5% significance level, so it can be conclude that trade openness has a significant influence on manufacturing output.

This result is in accordance with our expectation that trade openness will provide a positive influence on the level of manufacturing output. According to theory and empirical studies, among the main determinants is the market size of the host country would have effect on economic prospective. Trade openness that is too open will have a negative effect on manufacturing sector performance and can be induced by host country economic growth which will hinder the host country consumer market. So overall, we can conclude that trade openness and capacity utilization has only one-way relationship that is one way granger causality.

Table 5.5 also shows granger causality between, trade openness with total domestic demand. The results show that the null hypothesis trade openness does not granger cause total domestic demand and is accepted since p-value less than the significance level (5%). So, we can conclude that trade openness and total domestic demand only affect each other (one way relation), trade openness and total domestic demand also do affect each other, statistically. Empirically it has been proved that Nigeria economy is too open for foreign importation of any imported goods once is cheaper rather than the few locally produced ones.

5.5 Conclusion

Based on the findings, this study indicates that there is a causal relationship between capacity utilization and trade openness, while there is a relationship of mutual influence between total domestic demand and manufacturing output. The Granger Causality test shows that granger cause trade openness affect capacity utilization of manufacturing sector performance which gives a dangerous signal due to the liberal policy of the government such as structural adjustment program etc , while trade openness affect total domestic demand , which means that a change in trade openness will have effect on capacity utilization production level (one way causality relationship).. From Granger cause analysis we can conclude that manufacturing output is influenced by any of these independent variables. Vector Autoregressive (VAR) and Impulse Response Function (IRF) approach shows that the country's economic growth is affected by the past values of the GDP.

CHAPTER SIX

POLICY IMPLICATION AND CONCLUSION

6.1 SUMMARY OF FINDINGS

This study has been able to the effect of trade liberalisation on the performance of the manufacturing sector in Nigeria. It has been able to identify the extent of the performance of these sectors and established a link between them. Using output growth rate and the level of capacity utilisation as measures of performance and trade openness index as a measure of external trade, the study discovered a falling trend in the indices manufacturing sector performance and an upward trend in the external trade index measured as a proportion of total trade to the Gross Domestic Products (GDP). This reflects that Nigeria is integrated into the global economy.

The results established an empirical relationship between performance and external trade indices. The results revealed that there is a relationship between the two measures of performance on the on hand and the measure of external trade on the other hand. It shows that trade openness is significant as a predictor of the level of capacity utilisation in the manufacturing sector while the impact of domestic demand is infinitesimal. It can be deduced from this that the apparent growth in the level of domestic demand within the study period leaked out to foreign economies through high importation. This a pointer to the preference of the consumption patterns of Nigerians for foreign goods.

The challenges being faced by domestic manufacturing firms as result of the openness of the economy and the resultant fierce competition from established foreign manufacturers make the operating environment of these domestic firms to be adverse to growth, and the hope of sustainable and dynamic industrial base is getting shattered. The risk of dwindling manufacturing sector emanating from excessive openness of the economy far exceeds the opportunities presented by "freer trade". This is a direct consequence of lack of competitive edge on the part of local manufacturers when compared with their foreign counterparts.

6.2 POLICY IMPLICATION OF FINDINGS

The weak contribution of domestic demand to manufacturing sector capacity utilisation and output growth rate implies that domestic demand as a factor is not sufficient to improve the performance of the manufacturing sector in Nigeria. Similarly, the negative link between manufacturing performance and the degree of external trade calls a renewed perspective about the phenomenal of free trade. The economic performance of the manufacturing firms can be hampered or fostered by so many factors. Some are internal to the manufacturing firms while others belong to the economic and social environment in which they operate. Some are generic to all manufacturing firms; others are sub-sector-specific. Some factors seem to have immediate impacts on manufacturing performance, others have time lags. Some can be directly targeted through government intervention, other are more effectively promoted through market channels. A strategic framework of distinguishing between these factors will identify certain factor that will foster manufacturing performance in Nigeria.

Factors that stimulate the performance of manufacturing sector in Nigeria are not independent of the role of the government and as such, an enabling environment and institutional support services that will sustain and even improve these benefit-spinning factors should be initiated. Thus, as far as institutional support is concerned, manufacturing sector can receive a boost from two types of support. On the one hand, there is the government's role in creating an enabling regulatory and policy environment. On the other hand, there is direct support through private and public agencies that provide financial assistance and technical services.

While manufacturing sector grapple under the problem amplified by derelict infrastructure provision, economic policy debate has gone through cycles of arguing for and against state intervention. The provision of infrastructures has always been regarded as one of the main tasks of the state. The private sector can participate in making the infrastructure effective, but its regulation is above all a state function.

On the foreign trade front, there is an urgent need for a revisit of the gains from trade argument and all that accompanied globalisation. The commercial policy of the country should lean more towards trade restriction if a sustainable and viable manufacturing sector is to be achieved. Therefore, a renewed posture of the government in the direction of trade barriers in form of import substitution and quota system should be given much priority. This is strongly in line with the import substitution strategy for industrial development. Policy pronouncements aimed at protecting domestic manufacturers from unhealthy foreign competition, promotion of local technology and the enhancement of product quality are welcome development.

6.4 CONCLUSION

The performance of the manufacturing sector in Nigeria has been appalling both in terms of output growth rate and capacity utilisation. Reasons adduced for this are not far from unhealthy macroeconomic policy environment and problems that are generic to individual manufacturing firms. The operating environment of manufacturing establishments is made much more stiffed by the menace of fierce foreign competition in its various dimensions including dumping and porous border. This is partly explained by the commercial policy of the government towards freer trade, hence the bourgeoning rise in the proportion of foreign trade to the Gross domestic Products (GDP).

This study found from the analysis of relevant time series data that the rate of foreign trade in Nigeria is inversely related to the development of the manufacturing sector. Impliedly, to achieve the development of vibrant manufacturing sector, the role of the government is paramount in form of formulation and execution of appropriate and enabling macroeconomic policies, provision of infrastructures to aid the operational efficiency of manufacturing establishments, promoting explicit commercial policies to protect domestic firms from unhealthy foreign competitions and the promotion od demand side policy to stimulate domestic demand in favour of domestically produced manufactures.

6.3 Recommendation for Future Research

According to the findings in the result, we suggested that a comprehensive comparative study can be done with other developing nations so has to know where Nigeria manufacturing sector can improve and adjust her policy in order to achieve economic growth and development since there is none or little available literature that has conducted a comparative study among developing countries .

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