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An Industrialization Strategy for Economic Diversification and Sustainable Development of Nigeria

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Abstract

The objective of the study was to examine the role manufacturing industry can play in achieving the diversification of the Nigerian economy. The economy had been largely dependent, since the end of the civil war in 1970, on revenue from the export of crude oil and excessive importation of manufactured goods. This had made it vulnerable to vagaries of price in the world market. It was this vulnerability that gave rise to the introduction of the unsuccessful Structural Adjustment Programmes in 1986. This time the situation had become very critical. Since 2014 demand rigidities had caused the price of crude oil to decrease steadily leading to a crash to $29.02 in January 2016. In good times since the 2000s the price had been as high as $108.00 per barrel. Conceptually economic diversification is the process of making the economy dependent on a wide range of products and sectors instead of a few and integrating the economy into different regions or cartels so that a robust economic growth and sustainable development can be generated. In the case of Nigeria it is the process of avoiding overdependence on crude oil to the neglect of agriculture, manufacturing, services/trade and the other emerging sectors and revenue earners. To kick start the study the researcher hypothesised that manufacturing production did not have any significant relationship with the Gross Domestic Product (G.D.P) of Nigeria. To test the null hypothesis secondary data were sourced from the Central Bank of Nigeria, CBN Statistical Bulletin to cover the period of democratic rule, 1999 to 2015 when power transited to another political party. The dependent variable the G.D.P and the independent variables: the manufacturing output, exchange rate, the average capacity utilization and the percentage of commercial bank loans to SMEs were subjected to multiple regression analysis. The major finding was that there existed a significant positive relationship between output of manufacturing industry and G.D.P. The null hypothesis was rejected. The conclusion was that industrialization can be used to diversify the economy and increase the G.D.P. The policy recommendation was that all the industrialization strategies, to wit, import substitution, export substitution, small/medium industries participation and the Big push strategy should be adopted to make manufacturing the arrow head for achieving the diversification of the Nigerian economy for sustainable development.

Keywords: *Economic diversification, Import substitution, Export substitution, Small industries participation, Big push, Gross Domestic Product (GDP), Sustainable development.*

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Background to the Study

The need to diversify the base of the Nigerian economy can never be over emphasized, particularly now that revenue from crude oil exports has dwindled. Currently many state governments cannot even pay salaries to their public servants because of decreased revenue allocation from the Federation Account Allocation Committee (FAAC).

In January this year, 2016 the total revenue distributed to the three tiers of government, local state and federal, was N387.8 billion. In February the amount distributed came down to N370.3 billion. By the end of the first quarter in March it was N345.1 (Isa, 2015 p.27). If governments cannot pay salaries that are recurrent expenditure how can they embark on capital expenditure. Everything is now on hold in many states, with basic infrastructure decaying.

The question everybody is asking is how did we come to this pariah and parlous state? The answer is simple: It was due to over dependence on crude oil export as the main source of revenue up to the tone of more than 97% in some years (See N.N.P.C. in Osaghae, 1995 p.20) and lack of provisioning for the future by in effective governments. The consequence of this misgovernment was that the Nigerian economy over the years was badly exposed to the vagaries of commodity price fluctuation in the world market. Since June, 2015 the price of crude oil has steadily decreased due to supply and demand mechanism. In December, 2015 it was $39.04 per barrel. In January 2016 it came down to an abysmal low level of $29.02 (Anule, 2016 p.1). There has also been reduction in quantity exported due to pipeline vandalization. During the boom years the price of crude oil per barrel was as high as $100.00 (Yusuf, 2015 p. 1) but the government did not provide for the rainy day and much of the revenue was looted by corrupt public officers and elected representatives (Yusuf, 2015 p.1).

This paper, however seeks to consider the role industrialization (manufacturing) strategy will play as the pivot between improved agriculture and the other sectors particularly Trade/Services in order to achieve economic diversification and sustainable growth and development in Nigeria. The country needs a strategy whereby import substitution industries will turn out goods with local raw materials for the local market while export substitution industries will replace traditional exports particularly crude oil. Nigeria must replace unrefined petroleum ore with refined petroleum products and refined solid minerals. The challenges of diversification no doubt, may be daunting but they are not insurmountable yet, the prospects are bright and with good governance, leading kindly light, Nigeria will come out of the woods.

Objective of the Study

The objective of this study was to find out if there was any significant relationship between manufacturing production and the Gross Domestic Product so that using manufacturing as a strategic thrust the Nigerian economy can be diversified with non crude oil exports to increase the GDP and sustain development in spite of dwindling revenue from crude oil.

Research Question

Is there any significant relationship between manufacturing production and Gross Domestic Product (GDP) in Nigeria.

Statement of the Problem

The research problem that informed this study relates to the adoption of a manufacturing (industrialization) strategy for the economic diversification and sustainable development of Nigeria given the fact that revenue from crude oil export has reduced drastically to affect adversely the pace of socio-economic and political-legal development of Nigeria.

Research Hypothesis

To operationalize the study we hypothesize as follows: There is no significant positive relationship between manufacturing production and Gross Domestic Product GDP in Nigeria ($p \leq 0.05$).

Review of Related Literature

The review of literature in this work focused on the following issues: The structure of the Nigerian economy, the conceptual issues/framework, the theoretical framework, the other empirical and non empirical issues, to wit, the challenges and prospects of diversifying the Nigerian economy.,

The Structure of the Nigerian Economy

The Nigerian economy was originally based on a tripod, namely: Agriculture/Forestry, Manufacturing Industry/Construction and Trade/Services. In 2014, however, the economy was rebased and some emergent sectors have been added for example: Telecommunication. The rebased Gross Domestic Product, G.D.P amounted to N81 trillion ($510 billion) as at year end 2014 and the growth rate was 7.5% (NBS, 2014). With the statistics reeled out Nigerian economy became the largest in Africa and the 26th in the whole world. Also, the rate of growth of the G.D.P, namely: 7.5% placed the Nigerian economy in the group of countries with high growth rate like China and India. The Global average growth rate was 3.5%. With the G.D.P level of $510bn Nigeria was ranked among nations with approximate G.D.Ps namely: Argentina – 25th, Nigeria – 26th, Austria – 27th and South Africa – 28th (Okeke, 2014 p.6)

There is now a significant change in the structure of the Nigerian economy, a paradigm shift from previous years. The share of Agriculture has declined and there is an increase in the share of Services/Trade in the nominal G.D.P making the economy services oriented. By the end of the first quarter of 2015, the contribution of services sector to G D P stood at 54.56% while industry and agriculture accounted for 25.6% and 19.79% respectively (NBS, 2015; Enebili-Uzor 2015 pp 18-46). The emergent other sectors are also coming up namely: tele communication, e-commerce, entertainment etc. However, the preponderance of the trade/services sector is not a very healthy situation. It means that majority of Nigerians are selling and what they are selling are imported goods not produced locally. Manufacturing contributed only 25.65% of G D P. Indeed G D P estimates based on the 1990 nominal series indicated that wholesale and retail trade was the largest component of the service sector. After rebasing wholesale and retail trade still remained the largest component of the services sub sector. What this means is that Nigeria should step up manufacturing production so that wholesale and retail trade will be based on import substitution and not import dependence. In table 1 we present the G D P at current basic market price, the outputs of agriculture, industry and trade/services in billions of naira for the five years from 2010to 2014 to represent the structure of the Nigerian economy and the dominant position of trade/services sector. But, the exchange rate disability has drastically devalued the G.D.P. and things are getting worse every day.

Table 1. GDP at Current basic Market Price (N'Billion) Industry, Agriculture and Services/Trade

Year	G D P	Industry	Agric	Services/Trade
2010	54,612.26	12,033.20	13,048.89	27,959.20
2011	62,980.40	15,262.42	13,429.38	31,410.50
2012	71,713.94	16,975.34	15,816.00	36,733.90
2013	60,092.56	17,614.29	16,816.55	42,985.40
2014	89,043.62	18,402.19	18,018.61	49,434.00

Source: National Bureau of Statistics (NBS) 2015 Note the dominance of Trade/Service

Conceptual Issues/Framework

The Concept of Economic Diversification

The main conceptual issue in this work is Economic Diversification. By economic diversification we mean the strategy of making the economy dependent on a wide range of products and sectors instead of relying on a few or just one product. It also means integrating the economy into different regions of the global economy so that a robust economic growth and sustainable development can be generated (OECD, 2011 p.11; Uzonwanne, 2015 p.1).

With regard to Nigeria, economic diversification is the process of avoiding over dependence on crude oil to the neglect of agriculture, manufacturing, services/trade and the other emerging sectors and revenue earners. Available statistics indicate that since the 1970s when the civil war ended and Nigeria experienced oil boom there has been over reliance on crude oil as the main revenue earner up to the tone of close to 100%. For example between 1980-90 total revenue was N47,657,000,000 out of which revenue from oil was N46,244,000,000. Oil share of revenue was 97.24% (NNPC Annual Statistical Bulletin 1994 in Osaghae, 1995 p. 20). Before the dominance of oil Nigeria used to export agricultural products namely: oil palm produce, cocoa, groundnut, cotton etc. The solid minerals exported included tin ore, iron, cobalt, coal, colombite etc. With reliance on oil all these non oil exports were neglected and Nigeria became a mono cultural economy depending on the vagaries of oil prices in the world market for her revenue and economic progress. The essence of diversification is to make Nigeria go back to a non oil economy based on the quadrupod of agriculture, manufacturing, trade/services and the other emerging sectors like entertainment and telecommunication.

The Concept of Sustainable Development

Development is sustainable when a country is committed to a national policy on environment that ensures proper management of natural resources in a manner which meets the needs of the present and future generations (Emaviwe, 2016 pp 31-36). Development, *per se*, is the process of enhancing the economic, socio-cultural, political-legal and technological living standards of a people through the exploitation of natural resources (Meier, 1986 pp 5 – 11). It becomes sustainable when it meets the needs of the people not only now but also for the future generations.

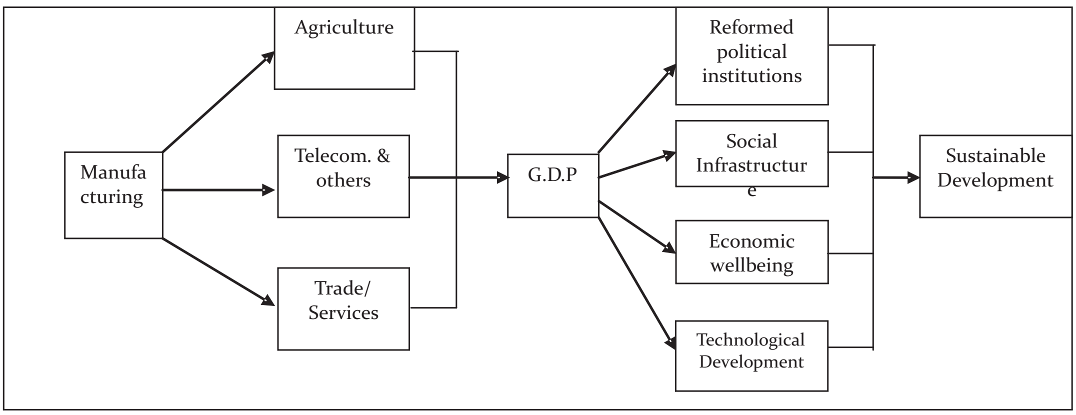
Theoretical Framework

There are at least four theoretical dispositions about a strategy of industrialization in development studies. These are as follows:

1. The Big Push Theory
2. The Small/Medium Industries Participation Theory
3. The Import Substitution Theory
4. The Export Substitution Theory

All the above theories have their merits and demerits. Whichever action plan that is adopted for economic diversification via a particular theory the programme should be encapsulated in a long term, strategic plan to give direction to the process. A term of 10 years is prescribed to produce a robust manufacturing sector that will turn out equipment/machine and other inputs such as fertilizers for the agriculture and forestry sector while agriculture and forestry will supply fiber and other raw materials for conversion into finished and semi-finished goods. This will replace imports for the retail/wholesale trade and services as well as produce substitutes of nontraditional exports in the form of refined valued added goods for export. With this model Nigeria will have an economic system that is less dependent on imports and through public policy action the people will no longer consume what they do not produce including Chinese tooth picks! For in spite of the much touted benefits of international trade theories there are countries like Japan and Turkey who consume basically what they produce. In figure 1 the researcher presents the symbolic model of a Manufacturing Driven Economic Diversification Strategy for Sustainable Development of Nigeria.

Figure 1: A Model of Diversified and Sustainable Nigerian Economy



Source: Constructed by the author from theoretical framework

Industrialization via the Big Push Theory

The proponents of the Big Push theory assert that in the manufacturing sector effort should be made to look for an opportunity for a big quantum of investment that will make an impact and lead the industrialization process. This investment should be made holistically on related industries that are complimentary and have linkage effect and synergy. When this investment is made it will create economies of large scale production that will be beneficial to the economy as a whole. In order words the industries should have forward and backward integration for example, rubber and tyre production, vehicle assembly plant and car dealership is one such big push investment. The big push theory is attributed to Paul, N. Rosenstein-Rodan 1943 (see Meier, 1986 pp 632 – 636).

The theory of the Big Push has been criticized over and over again because of a developing country's inability to raise the required quantum of capital for such big investment. However, it is still relevant because it is cost effective in the end. It reduces import demand and saves foreign exchange and plays catalytic role in establishing new industries. It is therefore recommended instead of investment in fragmented small scale industries that have no synergy and will not sum up to reap external economies of scale as it is the case with small and medium industries taken bit by bit. The Nigerian industrial policies after Independence were couched on the big push theory. The industries included vehicle assembly plants, refineries, textile industries, iron and steel etc. Unfortunately, the big industries were crippled down by official corruption and were privatized but due to harsh economic environment including high cost of foreign inputs they did not thrive. The Ajaokuta iron and steel industry is still a mirage.

Industrialization via the Small/Medium Industries (SMIs) Initiative

This strategy is basically private sector driven. The proponents of the SMIs theory assert that SMIs provide the missing links between the informal micro enterprises and the formal sector doted by large business. The building of bridges between the micro and the macro/maxi industries leads to accelerated transfer of improved technologies and economic growth (Ball & McCulloch, 1999 p. 403). The *Asian tigers*, Malaysia, Singapore, Taiwan etc are known to have benefitted from the SMI theory. The attraction also is based on the fact that the capital outlay is small per unit of industry and within the reach of developing nations. The Nigerian industrial policy objectives in 1980, 1988 recommend the SMI initiative but again the banking debacle of the 1980s and 1990s sent a lot of the industries to their graves when they were declared bankrupt and had their assets sold off by drowning banks.

Industrialization via Import Substitution Industries (ISI)

This strategy also has its proponents and values and has appeared in Nigerian industrial polices and the theory has been demonstrated in Latin America and Asia (Meier 1986 p. 648). The strategy has been the production of consumer goods in substitution of imports for conservation of foreign exchange to solve balance of payment problems. The main ISI projects which have enjoyed Nigeria's patronage are assorted beverages, beer etc, tobacco, vegetable oils, textiles, home appliances, pharmaceuticals and agro-based industries. However, the reliance on oil for easy money and import liberalization policy has sent some of the industries packing from Nigeria and relocating to Ghana and other places. Examples are cited of industries producing batteries, textiles, motor tyres – Michelin, Dunlop, PZ, etc.

Industrialization via Export Substitution Industries (ESI)
This is the opposite of ISI strategy. It emphasizes manufacturing for the export of non-traditional export goods such as processed primary products, semi-manufactured and fully manufactured goods in substitution for traditional primary export products. In the case of Nigeria this is where the processing of solid minerals and increasing the value chain of petroleum products for export is prescribed. The E.S.I strategy was at the heart of the Structural Adjustment Programme (SAP) of 1986 and the industrial policy of 1988. But unfortunately instead of fine-tuning the SAP which was tinted with corruption it was abandoned and Nigeria continued to import everything including Chinese tooth picks. Industrialization via export substitution carries a lot of weight especially where labour is a cheap component of the production function and the export price is high (Meier, 1986 pp 671 – 676).

To make industrialization the arrow head of diversification Nigeria should try all the strategies again based on cost-benefit analysis. There is need to woo big time foreign investors including Nigerians in diaspora, with good quantum of capital to invest in large scale industries with *big push* such as petroleum refinery, petrochemicals, vehicle assembly, cement manufacturing etc. in all the states of the federation and reduce import dependent. There is also need to woo small private investors both local and foreign to establish small industries at designated industrial layouts in all the states. What is required to woo investors is the provision of enabling environment particularly the ease of doing business and power generation. Independent Power Providers (IPPs) should supply electric power exclusively to the industrial layouts. The IPPs are already in Port Harcourt and Lagos. They have to go round to other states.

Nigeria should not any more swallow international trade theories hook, line and sinker on the false notion of "comparative advantage" and forever be import dependent. The trade liberalization theories of Milton Friedman and associates of the 1950s have failed developing countries. If Nigeria had continued industrialization with the industrial policy objectives of the various National Development Plans starting from 1966 the country should not have been dependent on oil alone for revenue. Unfortunately the plans were jettisoned and "without plans and priorities they (our leaders) ruled the country" (Asiodu in Obineche, 2016 p.14)

The Challenges of a Manufacturing Driven Diversification
The challenges for achieving a manufacturing driven diversification are basically the environmental factors of business in Nigeria detailed out by Mbaegbu & Ogbeifun (2009, pp 16 – 29) as Economic, Socio-cultural, Political-legal and Technological/Global factors. The economic factors include unavailability of finance. Bank credits to small-scale enterprises have steadily been on decline. The banks should be made to finance the real sector before Nigeria can think of the industrial take off that will lead diversification of the economy (Mbaegbu & Ogbeifun 2009 p.20). While finance is not easy to come by the costs of production have been prohibitive. The cost correlates – rate of inflation, the exchange rates,

interest rates have always been on the increase thereby making capacity utilization in industries low. The Nigerian population by its sheer size projected to be 200 million in 2020 should provide good market for industrial goods, but there is mass poverty in the land and therefore purchasing power is low. We also need to consider the use of local inputs instead of being dependent on imported raw materials like oats and barley for the breweries.

The socio-cultural challenges are daunting. There is a dearth of basic infrastructure to support industrialization. According to Global Competitiveness Index (2012 – 2013) Nigeria ranked 130 out of 180 countries in overall infrastructure development (Hassan, 2016 p.29). This includes energy crises, poor transport facilities and bad roads etc. More than ever before the problem of power supply has worsened, in spite of privatization of the power sector. There have been days during the first quarter of this year, 2016 when electricity generation from the Generating Companies (Gencos) was zero megawatts due to grid collapse occasioned by vandalization of pipelines that supply gas to the Gencos (Yusuf, 2016 p. 26). Also since the last quarter of 2015 queues have returned to the petrol filling stations because of scarcity of fuel yet Nigeria is the largest exporter of oil in Africa (Yusuf, 2016 p.25). The local refineries cannot meet local demand and the importers cannot sell at control prices without subsidy which had been tinted with corruption and reap offs over the years. Even fuel pipelines are not spared of vandalization by the enemies of the government in the Niger Delta. When we come to road network we see that Nigerian roads are not industry friendly. They are riddled with pot holes that regularly make trailers carrying industrials raw materials and merchandize to fall over and destroy their wares. Again, railway lines that provide cheap means of transport in the industrialized countries of the world are not readily available any more in Nigeria inspite of the billions of naira regularly sunk to rehabilitate what the colonialist left for the country. Nigeria is blessed with many inland waterways that could be used for bulk haulage of industrial goods but they are not developed. The period of clearing goods at the ports is still long. Corruption and bureaucracy are the major problems (Mbaegbu & Ogbeifun 2009 p.21). Besides, industries cannot thrive where there is poor communication network as it is in Nigeria inspires of the fact that the Global System for Mobile Communication (GSM) companies have more than 100 million subscribers in Nigeria (Okeke,2014 p.8).

The political legal challenges are formidable. Good governance is required. Presently, there are quick changes in public policies and the ease of doing business in Nigeria is among the highest in the world due to over-regulation and corruption (Oteh, 2009 p. 16).

Public policy framework is a *sine qua non* for our model to operate. Policy inconsistency has been the bane of the development of Nigeria. We are not unmindful of the second National Development plan published in June 1966 with the industrial sector expected to grow at over 15% per annum. The plan was jettisoned as well as the industrial policy of 1988 which was essentially an update of that of 1980 and part of the Structural Adjustment Programme (SAP) 1986. (See Federal Republic of Nigeria 1980, 1988). We have also heard of vision 2020, the Nigerian Economic Empowerment and Development Strategy and its subset State Economic Empowerment and Development Strategy (NEEDS and SEEDS) (See National Planning Commission, 2004). The immediate past administration used a medium term expenditure framework which was not strategic in effect and the economy remained undiversified. The present administration has gone one year. Where is the policy framework?

Electronic business has become the global technology that is used worldwide. But because of broadband problem the use of this technology in Nigeria is limited. Finally the government has to grapple with the dumping of inferior goods from South East Asia on Nigerian markets and encourage local manufacturers. Also, Nigerians' preference for imported goods is bad. Other challenges include international trade barriers including barriers within the West African subregion inspite of ECOWAS treaties.

Prospects

Inspite of the daunting challenges Nigeria can still take off and diversify the economy once there is a will and transparent leadership. First, the processing of solid minerals can take the shine away from oil. In Nigeria the following solid minerals abound: limestone, columbite, coal, cassiterite, iron, marble, etc. The middle belt region is sitting on solid minerals. The oil reserves are tremendous. Creating more refineries will add value to the oil so that fuel and other products will create export substitution. Gas flaring is a regular practice among the oil companies. Yet Nigeria has 188 trillion standard cubic feet gas reserves that need to be exploited and commercialized (New Telegraph, 2015 p.17). All that is needed is policy predictability in the mining sector to attract local and international investors. Renewable energy supply using biotechnology to generate gas from organic materials such as refuse dumps can supply electricity to industries.

Agro-allied industries are areas that need to be encouraged Nigeria produces a lot of fruits at season and much of it rot away and the country imports caned products. Tin tomatoes produced locally, for example are competing with Chinese products where as tomatoes from tomato farms in Jos perish. Generally there are good prospect for industrialization once there is a responsible government that will face the challenges (Mbaegbu & Ogbeifun 2009). The new foreign exchange policy will make the commercial banks finance the real sector instead of speculating on exchange rates. Last year the Bank of Industry (BOI) disbursed N5.6bn for its Graduate Empowerment Fund (GEF). This year it plans to disburse N30 billion to stimulate entrepreneurship in the SMEs sector (Hassan, 2016 p.30). There are evidences of socio-economic reforms to attract investors. The comprehensive review of the institutional, regulating legislative and associated instruments affecting Business in Nigeria is aimed at proposing amendment of 54 obsolete laws to make Nigeria investor friendly and enhance ease of doing business (Vanguard Newspaper, 2016 p.9). These are encouraging news.

Methodology

Materials and Methods

Data that cover the period of 1999 to 2014 were employed. These series were sourced from National Bureau of Statistics (2014)/CBN Statistical Bulletin and it is presented as follows in table 2.

Table 2: Gross Domestic Product (GDP); Manufacturing Product at Current Basic Prices (in N'Billion), 1999 – 2014, Exchange rate, Capacity utilization in industry and Commercial Bank loans

S/N	Year	Gross Domestic Product (GDP)	Manufacturing Product	Average Exchange Rate	Average Capacity utilization	Percentage of Commercial Bank loans to SMEs
1	1999	3,194,014.97	150,946.52	92.6934	34.6	10.43
2	2000	4,582,127.29	168,037.02	102.1052	36.1	7.58
3	2001	4,725,086.00	199,079.32	111.9433	42.7	6.21
4	2002	6,912,381.25	236,825.53	120.9702	54.9	8.68
5	2003	8,487,031.57	287,739.38	129.3565	56.5	7.49
6	2004	11,411,066.91	349,316.32	133.5004	55.7	3.62
7	2005	14,572,239.12	412,706.60	132.1470	54.8	2.54
8	2006	18,546,594.73	478,524.14	128.6516	53.3	0.99
9	2007	20,657,317.67	520,883.03	125.8331	53.4	0.85
10	2008	24,296,329.29	585,573.04	118.5669	53.8	0.17
11	2009	24,794,238.66	612,308.89	148.8802	58.9	0.14
12	2010	54,612,260.00	3,578,610.00	150.2980	55.8	0.15
13	2011	62,930,100.00	4,127,450.00	153.8616	-	0.17
14	2012	71,713,940.00	5,588,820.00	157,4994	-	0.15
15	2013	80,092,560.00	7,233,320.00	163.9500	-	-
16	2014	89,043,620.00	8,685,430.00	196.9500	-	-

Source: National Bureau of Statistics (NBS)

The model can be stated thus:
GDP = F (MANP, EXCR, AVCU, CBLSMES) .... (1)
Where GDP = Gross Domestic Product
MANP = Manufacturing Product
EXCR = Exchange Rate
AVCU = Average Capacity Utilization
CBLSMES = Commercial Bank Loan to SMEs

Table 3: *A Priori* Expectation, Direction of Effect of Independent variables on Dependent Variable: Gross Domestic Product

Independent Variables	***Direction of Effect***
Manufacturing Product	*Positive*
Exchange rate	*Negative*
Average Capacity Utilization	*Positive*
Commercial Bank Loan to SMEs	*Positive*

Manufacturing product is the main independent variable. Others are intervening independent variables representing the challenges to manufacturing.

Data Analysis, Interpretation and Test of Hypothesis
Table 4: Multiple Regression Result.

Dependent Variable: GDP
Method: Least Squares
Date: 05/15/16 Time: 04:14
Sample: 1999 2014
Included observations: 16

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	25818434	13948298	1.851010	0.0912
MANP	8.272792	1.468924	5.631873	0.0002
EXCR	-18451.69	120995.8	-0.152499	0.8816
AVCU	-75422.93	105908.5	-0.712152	0.4912
CBLSMES	-2059696.	437741.0	-4.705284	0.0006

R-squared	0.985084	Mean dependent var	31285682
Adjusted R-squared	0.979661	S.D. dependent var	29732286
S.E. of regression	4240314.	Akaike info criterion	33.60848
Sum squared resid	1.98E+14	Schwarz criterion	33.84991
Log likelihood	-263.8678	F-statistic	181.6207
Durbin-Watson stat	1.004155	Prob(F-statistic)	0.000000

The estimated model can be shown as:

GDP = 25818434 + 8.272792MANP – 18451.69EXCR – 75422.93AVCU –2059696CBLSMES

Interpretation and Test of Hypothesis

The Impact and Relationship between Manufacturing Product and Gross Domestic Product

From the result in Table 4 and in the above equation, the estimated model shows that *manufacturing products* have positive impact on *Gross Domestic Product*. This implies that an increase in *manufacturing products* will lead to increase in *Gross Domestic Product* in Nigeria. This is consistent with the *'a priori'* expectation. Specifically, a one percent increase in *manufacturing products* will increase *Gross Domestic Product* by about 8.272792. Interestingly, the t- statistic reveals that the variable is significant at 5% level of significance since the probability value 0.0002 is less than 0.05 (p- value < 0.05). This implies that *manufacturing products* has a positive and a significant relationship with *Gross Domestic Product* in Nigeria. In conclusion we accept the alternative hypothesis that there is a significant relationship between manufacturing product and GDP and reject the null hypothesis.

Impact of Exchange Rate on Gross Domestic Product

The coefficient of Exchange rate (EXCR) shows a negative impact on GDP in Nigeria. This implies that a 1% rise in exchange rate will decrease GDP by **-18451.69.** This is in line with theoretical underpinning which postulates that an increase in exchange rate will impact negatively on Manufacturing Export Performance. However, the t- statistic shows that exchange rate has a significant impact on GDP. The decision is made based on the probability level of EXCR which is greater than 0.05 (p- value > 0.05). P- value of exchange rate is 0.8816

Impact of Average Capacity Utilization on Gross Domestic Product
The analysis also shows that Average Capacity Utilization has negative impact on GDP. This implies that an increase in AVCU will lead to decrease in GDP in Nigeria. This is not consistent with the '*a priori*' expectation. Specifically, a one percent increase in AVCU will reduce GDP by about – **75422.93**. Interestingly, the t- statistic reveals that the variable is NOT significant at 5% level of significance since the probability value 0.4912 is GREATER than 0.05 (p- value > 0.05). This implies that AVCU has a NEGATIVE and NO significant impact on GDP in Nigeria.

Impact of Commercial Bank Loan to SMEs on Gross Domestic Product
Commercial bank loan to SMEs has negative impact on GDP. This implies that an increase in Commercial bank loan to SMEs will lead to decrease in GDP in Nigeria. This is not consistent with the *a priori* expectation. Specifically, a one percent increase in Commercial bank loan to SMEs will decrease GDP by about – 2059696. This result maybe that the loan given to SMEs was not utilized adequately being that the risk of doing business in Nigeria is too high. Interestingly, the t- statistic reveals that the variable is significant at 5% level of significance since the probability value is greater than 0.05 (p- value > 0.05). This implies that Commercial bank loan to SMEs has a negative and a significant impact on GDP in Nigeria.

Findings and Discussion of Findings
The major finding in this study was that manufacturing industry inspite of challenges contributed significantly to the growth of GDP within the period of study. Manufacturing could, therefore, be used to drive diversification of the Nigerian economy. This finding is consistent with the Big Push theory. As stated by Rosenstein Rodan (in Meier 1986) a big quantum of investment in a leading sector will provide linkage effect that will spread to other sectors and increase Gross Domestic Product (GDP). The finding is also consistent with the small/medium industries initiative prescribed by Ball and McCullock (2006 p.61).

The small and medium industries operate more in the Agro-allied enterprises providing raw materials for the big industries by converting agricultural products into finished and semi-finished products with added value to boost the GDP. The finding also is consistent with both the import substitution theory and the export substitution theory making use of SMIs initiative.

Industrialization via any of the strategies impacts on GDP, conserves or earns foreign-exchange (Meier, 1986 pp 648 – 654 and pp 671 - 677). Finally the finding is consistent with the proposed N350bn Federal Government intervention fund to boost manufacturing in the country (Hassan, 2016 p 29). The findings also show that exchange rate has a significantly negative impact on G.D.P. Capacity utilization has no significant impact on G.D.P and finally percentage of commercial bank loan to SMEs has negative impact on G.D.P. Conclusively apart from exchange rate the other intervening variables (challenges) have not enough significant impact to affect the positive relationship between manufacturing product and G.D.P.

Contribution to Knowledge

The paper has expanded the frontiers of knowledge in economic diversification. Specifically it has shown how manufacturing industry can be used as arrow head to hit the target on economic diversification in Nigeria.

Conclusion

The study shows that since 1999 manufacturing has been making significant contribution to GDP. Therefore, if more resources are invested into manufacturing industry the Nigerian economy will be diversified for sustainable growth and development.

Recommendations

Based on the findings we make the following policy recommendations:

1. More funding should be channeled to manufacturing industry to enable it lead diversification. This should be backed with a ban on the importation of none essential commodities to encourage local production including artificial hairs, tooth picks etc.
2. Exchange rate disability should be treated seriously. The government should invest more in human development to increase the skill and knowledge required to increase productivity and decrease import dependence which puts pressure on the exchange rate.

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