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Manufacturing micro, small and medium enterprises and gross domestic product in Nigeria

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Abstract

Gross Domestic product (GDP) is a very sensitive macroeconomic variable essential for economic growth and development of any country. Micro Small and Medium Enterprises (MSMEs) are engine of growth and development of every economy. This brought about an interwoven relationship between the two variables in fostering the economic growth. This study is an ex-post facto study that examined the contribution by manufacturing MSMEs on the GDP of Nigeria. the study is an exploratory and descriptive approach quantitative data gathered through secondary sources. The study outcome revealed that government expenditure on MSMEs is not significant but positively contribute to the GDP value. The study recommends a collaborative effort between Small and Medium Enterprises Development Agency of Nigeria (SMEDAN) and Central Bank of Nigeria (CBN) to encourage government policy that will enhance government expenditure on MSMEs for sustainable economic growth and development.

Keywords: Gross domestic product, MSMEs, manufacturing, government expenditure

Introduction

There is growing recognition of the important role Micro, Small and Medium Enterprises (MSMEs) play in economic development. They play a pivotal role through several pathways that go beyond job creation. They are growth supporting sectors that not only contribute significantly to improve living standards, but also bring substantial local capital formation and are responsible for driving innovation and competition in developing economies. Governments at all levels have undertaken initiatives to promote the growth and development of MSMEs. The general perspective is that MSMEs are seen as accelerating the attainment of broad socio-economic objectives, including poverty reduction, employment generation, wealth creation, among others (SMEDAN, 2015) ^[19].

The most common form of business found all over the globe is the Small and medium Enterprises (SMEs). Small and Medium Enterprises plays a very vital role in the economies of both developed and developing countries, representing 90 percent of all manufacturing enterprises in the world (Ayanda and Adeyemi, 2011) ^[4]. African Development Bank confirms that Small and Medium Enterprises (SME's) represents over 90 percent of business, providing employment and representing Gross Domestic Product (GDP) approximately 50 percent in Africa. SMEs have been considered as the engine of growth and for promoting equitable development (Ayanda and Adeyemi, 2011) ^[4].

The development of many countries is often measured by such indices as the level of industrialization, modernization, urbanization, gainful and meaningful employment for all those who are able and willing to work, income per capita, equitable distribution of income, welfare and quality of life enjoyed by the citizenry (Suleiman, Neshambi and Valero-Silva, 2016). Small and Medium Enterprises are vast majority of business found in variety of primary and intermediate production of the economy (Olatunji, 2013) ^[17]. In Nigeria, Small Scale enterprises is a business with labor size of 11 – 100 work force or total capital of not less than NGN 50 million including working capital but excluding cost of land; while a Medium Scale enterprise is the one with labor size of 101 – 300 workers or total capital over NGN 50 million but not more than N200 million including working capital but excluding cost of land (Abereijo, Ilori, Taiwo and Adegbite, 2007) ^[1]. SMEs have varying definitions depending on the country's level of development. However, in defining SMEs, references are usually made to quantitative measures such as number of people employed by the enterprise,

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investment outlay, the annual turnover (sales) and the asset value of the enterprise or a combination of these measures (Stephen and Wasiu, 2013) ^[20].

Small and Medium Enterprises with 10-70 employees constitute 90 percent of the industrial sector of Nigerian economy amounting to 70 percent of industrial development contributing almost 70 percent of the manufacturing sector output and 1 percent GDP. SMEs not only contribute significantly to improved living standards, they also bring about substantial local capital formation and achieve high levels of productivity and capability. From a planning stand point, SMEs are increasingly recognized as the principal means for achieving equitable and sustainable industrial diversification and dispersal; and in most countries SMEs account for well over half of the total share of employment, sales, and value added (Stephen and Wasiu, 2013) ^[20].

The Nigerian government in 2015 approved a new National Policy on Micro, Small and medium Enterprises (MSMEs) which change the dimension of the sector completely. There in Micro enterprises is defined as enterprises with total workforce of less than ten (10) employees and assets excluding land and building less than ten million Naira (less than NGN 10 Million). Small enterprises are firms with employment capacity between 10 and 49 employees and total assets excluding land and building of NGN10 million less than NGN100 million. Medium enterprises are businesses with total workforce between 50 and 199 employees and total assets of NGN 100 million less than NGN 1,000 million. In case of any dispute arisen from the classification with regards to employment and asset criteria, the employment based classification will take precedence. For instance, in a situation where an enterprise has total asset of NGN 12 Million and with 7 employees the firm is regarded automatically as Micro Enterprise. There are thirty-seven point zero seven million (37.07) MSMEs in Nigeria; out of which ninety-nine point eight percent (99.8%) are Micro Enterprises, 0.18 percent are Small Enterprises and 0.02 percent are Medium Enterprises (SMEDAN, 2015) ^[19].

The Nigerian manufacturing sector gain its peak at 7.83% during the year 1982, since then the contribution of manufacturing as a share of total economic output in Nigeria generally deteriorated. A host of reasons have contributed to the disparity in sector share over time, many of which show both the exposure of manufacturing to international economic forces, as well as the influences that policy variations on redesigning the sector (SMEDAN/NBS, 2010).

Manufacturing sector contributed approximately 10% to Nigeria's economic output prior to the oil boom of the 1970's. Subsequently, increased revenues from oil triggered the sector's relative Gross Domestic Product (GDP) share to deteriorate. Although growth persisted notwithstanding at a slower pace (UNIDO, 2002). The downturn caused by the fall in oil prices in the international market during the early 1980's prompted policy attention to the manufacturing sector, with major emphasis on steel production (Okonkwo and Abidike, 2016; Oduyoye, Adebola, and Binuyo, 2013) ^[15, 16]. However, the Nigerian Enterprises Promotion

Decrees of 1972 and 1977 had converted the bulk enterprise ownership from foreign to Nigerian, restricting foreign capital inflows. The deficiency of affording of imported goods, coupled with the lack of foreign capital and technology, cheered local manufacture of basic commodities such as soap and salt (FMRR, 2013).

Beside price manipulation through export and import subsidies reinvigorated the importation of intermediary inputs and thus the expansion of assembly based industry. A momentary spike in manufacturing output was witnessed in the early 1980's so that it contributed to 7.83% of total economic output (Oduyoye et al. 2013) ^[15]. However, the price manipulation discouraged domestic manufacture of inputs, as well as the investment in the infrastructure and human capital required to do so in the future and this share soon began to decline. In 1987 import bans on raw materials were imposed under the World Bank Structural Adjustment Program (SAPs), encouraging import substitution (UNIDO, 2002). Intermediary input manufacturers were able to produce competitively again, and there were fewer plant closures. This, combined with the Privatization and Commercialization Act of 1988, encouraged a higher degree of efficiency to be achieved in manufacturing (Suleiman et al. 2016). A slight increase in the share of manufacturing in economic output of 0.62% points was observed from 1986-1988. During the course of the 1990s and 2000's, Nigeria continued to depend heavily on the export of oil, letting manufacturing to remain in its decline state (Adegbuyi et al. 2016) ^[2]. Enterprises were not export oriented, and lacked efficiency, triggering competitive businesses to transfer factories overseas. However, industries such as beverages, textiles, cement and tobacco kept the sector buoyant, but even these operated at under half of their capacity. Hence, production is mainly located in Lagos and its boundary, and to a lesser extent some other commercial towns such as Kano or Kaduna in North Western Nigeria (SMEDAN/NBS, 2013). The main focus of this study is to examine the contribution of manufacturing MSMEs on Gross Domestic Product in Nigeria's economy.

Literature Review

MSMEs and Gross Domestic Product in Nigeria

Analysis of previous historical trends of Nigerian economic growth show that the economy has been largely supported by non-oil growth, as a result of domestic oil supply shocks. The outlook for the economy in 2015 and beyond is even more complicated, in light of declines in crude oil prices (NBS, 2016). While this on one hand creates risks to the economy, these declines in prices give the Nigerian government the opportunity for some potential savings as payments subsidies on PMS and other refined products may be diverted into more productive aspects of the economy as currently done with the Subsidy Reinvestment Program (SUREP). From 2013 the GDP was steadily growing from 4.3%, 5.4%, 7.0% and 7.13% in 2014, 2015, 2016 and 2017 respectively. The growth is forecasted to be 7.78% and 7.80% in 2018 and 2019 respectively (IMF, WEO and SMEDAN extracts, 2017).

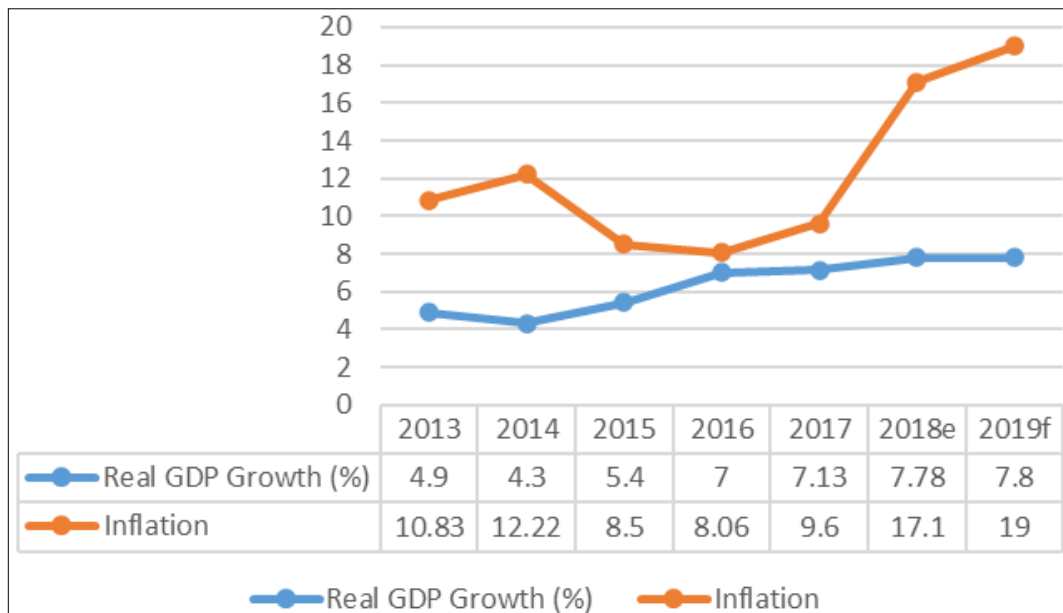


Fig 1: Real GDP Growth Rate post rebasing from 2013-2019f

Source: researchers’ extraction from various NBS/CBN Collaborative Reports. After rebasing the manufacturing sector reveal a more optimistic picture depicting modern manufacturing activities

and capturing deflated prices more accurately in consideration of the inflation index. The contributions of the manufacturing sector involving MSMEs post rebasing is shown in table 1 as plotted in figure 2 below.

Table 1: Manufacturing sector contribution to the gross domestic product real growth rate.

	2015/16	2016/17	2017/18	Average
Food Beverages and tobacco	7.31	6.56	11.81	8.56
Textile, Apparel and Footwear	62.21	42.57	34.48	46.42
Wood and Wood Product	5.58	20.79	8.88	11.75
Pulp, Paper and Paper Product	17.08	6.42	45.04	22.85
Chemical and Pharmaceuticals Products	54.73	58.95	49.66	54.45
Non-Metallic Products	66.31	13.15	32.26	37.24
Plastic and Rubber Products	124.79	39.83	30.15	64.92
Electrical and Electronics	82.26	-0.95	5.17	28.83
Basic Metal, Iron and Steel	131.67	20.83	13.35	55.28
Motor Vehicles and Assembly	20.11	34.32	25.72	26.72
Other Manufacturing	39.37	32.07	33.43	34.96

Source: Researchers extraction from various National Bureau of Statistics (NBS) Reports.

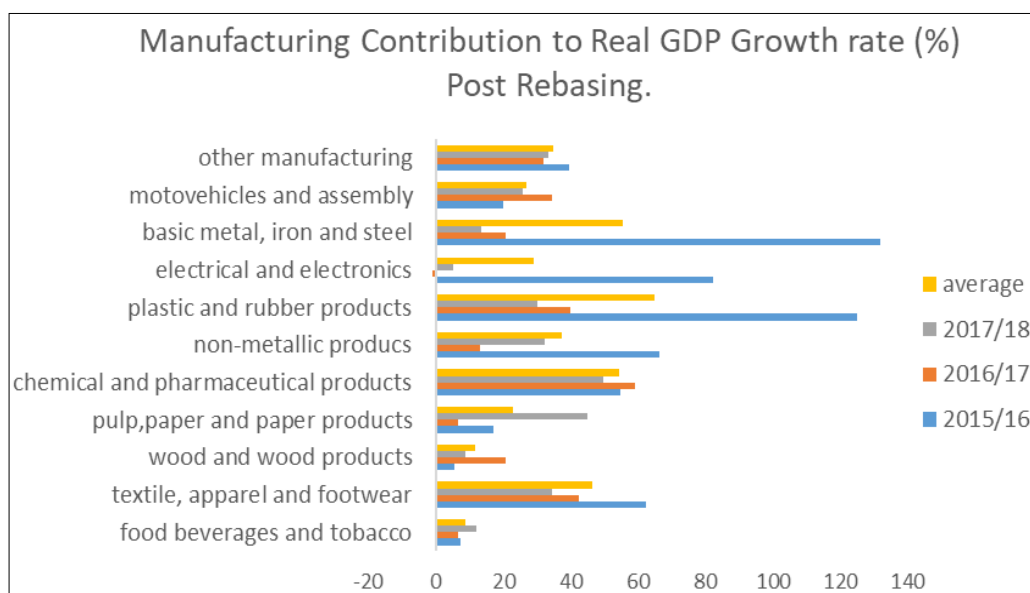


Fig 2: Contributions of manufacturing sector to Real GDP Growth.

In figure 2 above it clearly shows that plastic and rubber products ranked first on average in contributing to Real GDP Growth followed by basic metal, iron and steel subsector and thirdly by chemical and pharmaceutical products. The most dominant subsector in all activities which is the food beverages and tobacco contributed the list on average and year on year basis too. In 2015/16-year basic metal, iron and steel is the major contributor whereas in 2016/17 and 2017/18 chemical and pharmaceutical products ranked first. Electrical and electronics recorded a negative contribution during the year 2017/18 even though it was the third largest contributor during 2015/16 year.

Research Methodology

The overall MSMEs contribution on economic development in Nigeria is represented by three predictor variables, these are Domestic Savings, Government Expenditure and Foreign Direct Investment on SMEs. Whereas the dependent variable economic development is proxy by Gross Domestic Product (GDP). Data relating to the independent variable and that of the dependent variable were sourced from various reports of Nigeria Bureau of Statistics and Central Bank of Nigeria statistical bulletins. The study employed time series data 29 years from 1990-2019. The justification for selecting this period is to observe the significance of manufacturing MSMEs contribution to

the economic growth notwithstanding Government inattention and the restitution of determination towards improving manufacturing sector through Vision 2020. The study adopts with modification the model used by Izuchukwu (2011) [7]. Data analysis was made using multiple regression method and cross tabulation.

$$\begin{aligned}
 \text{Model} &= Y_t = \beta_0 + X_1\beta_1 + X_2\beta_2 + X_3\beta_3 + \mu_t \\
 \partial S &= 2\sum(Y_1 - \beta_1 - \beta_2X_{1,i} - \beta_3X_{2,i})(-1) = 0 \text{ and } \partial \beta_1 \\
 \partial S &= 2\sum(Y_1 - \beta_1 - \beta_2X_{1,i} - \beta_3X_{2,i})(-X_{1,i}) = 0 \text{ } \partial \beta_2 \\
 \partial S &= 2\sum(Y_1 - \beta_1 - \beta_2X_{1,i} - \beta_3X_{2,i})(-X_{2,i}) = 0 \text{ } \partial \beta_3 \\
 \sum Y_i &= N\beta_1 + \beta_2 \sum X_{1,i} + \beta_3 \sum X_{2,i} \dots\dots\dots(2) \\
 \sum X_{1,i}Y_i &= \beta_1 \sum X_{1,i} + \beta_2 \sum X_{2,i} + \beta_3 \sum X_{1,i}X_{2,i} \dots\dots(3) \\
 \sum X_{2,i}Y_i &= \beta_1 \sum X_{2,i} + \beta_2 \sum X_{1,i}X_{2,i} + \beta_3 \sum X_{2,i}^2 \dots\dots(4) \\
 \text{GDP} &= \beta_0 + \beta_1 \text{DSMSME} + \beta_2 \text{GEMSME} + \beta_3 \text{FDIMSME} \\
 &+ \mu_t
 \end{aligned}$$

Where

- GDP = Gross Domestic Product
- DSMSME = Domestic Savings on Manufacturing MSMEs
- GEMSME = Government Expenditure on Manufacturing MSMEs
- FDI = Foreign Direct Investment on Manufacturing MSMEs
- μ = Error term

Results and Discussion

Table 2: Cross Tabulation Analysis for Dependent Variable and Predictor Variables.

	Variables relationship		X2	df	Sig.
	Measurement	Proxy			
1	GDP magnitude	Domestic Savings on Manufacturing MSMEs	15.92	32	0.001
2	GDP magnitude	Government Expenditure on MSMEs	25.33	32	0.123
3	GDP magnitude	Foreign Direct Investment on MSMEs	8.18	32	0.027

Source: Researcher’s computation 2020.

Table 3: Covariance between/amongst constant and predictor variables

Variables	Estimates	S.E.	C.R.	P-Values	Label
GDP<-->DSMSME	0.113	0.074	1.535	0.025	par_1
GDP<-->GEMSME	0.319	0.066	4.819	***	par_2
GDP<-->FDIMSME	0.049	0.067	0.727	0.007	par_3

Source: Researchers Computation 2020

Table 4: Correlations between Dependent and Predictor Variables

Variables	Correlation coefficient
GDP<-->DSMSME	0.071
GDP<-->GEMSME	0.227
GDP<-->FDIMSME	0.033

Source: Researchers Computation 2020

Regression Analysis

Table 2 below depicts the multiple regression result describing the contribution of MSMEs in the Nigerian economy, Gross Domestic Product (GDP) as dependent

variable and Domestic savings, Government Expenditure on MSMEs and Foreign Direct Investment on MSMEs, as predictor variables.

Table 5: Regression weights of dependent on predictor variables

Model	Unstandardized Coefficient (β)	Standard error (SE)	Standardized Coefficient	t- value	Sig. (p)
1 (Constant)	33797.233	2554.781	-	13.229	0.000
DSMSME	0.287	0.021	-	13.667	0.000
GEMSME	0.487	0.020	0.116	24.350	0.389
FDIMSME	0.133	0.016	0.086	8.313	0.004

Source: Researchers Computation 2020.

Table 6 above revealed that Government Expenditure on MSMEs contributes the most (48.7%) this implies that in each unit change in GEMSME there is a corresponding change of 48.7% in GDP contribution made by MSMEs in the manufacturing sector. Domestic savings is the second most contribution to the GDP, meaning that, for every unit change in Domestic Savings on MSMEs there is a corresponding change of 28.7% in total GDP contribution by manufacturing MSMEs in Nigeria. lastly, the Foreign Direct Investment on MSMEs also has a positive contribution of 13.3% which is less than any other predictor variable employed in this study.

Conversely, Foreign Direct Investment on MSMEs which contributes less has significant impact on the GDP contribution by MSMEs in the Nigerian economy going by its P- value of $0.004 < 0.005$ contrary to the Government Expenditure on MSMEs P- value is $0.389 > 0.005$. if these variables are interpreted in isolation the result may mean that Government Expenditure is not significant. If this conclusion is made based on the probability coefficient value of only GEMSME alone the result will be misleading. The analysis of variance between and amongst dependent and independent variables in table 7 below provide a clear explanation to this phenomenon.

Table 6: Analysis of Variance (ANOVA)

Model	Sum of Squares	Df	Mean Square	F. Value	Sig.
Regression	2.373E15	3	5.974E13	29.575	0.000 ^a
Residual	5.889E12	24	3.667E8		
Total	2.177E27	27			

Source: Researchers Computation, 2020.

Table 7: Model Summary

Model	R	R Square (R ²)	Adjusted R ²	Standard Error
1	0.873	0.734	0.689	3.234

Regression coefficient $R = 0.873$ revealed high positive relationship between the independent variables Domestic Savings, Government Expenditure on MSMEs and Foreign Direct Investment on MSMEs and Gross Domestic Product. The value of coefficient of determination R^2 of 0.734 revealed that 73.4% of the variation in GDP is explained by the independent variables whereas the remaining 26.6% could be explained by other factors which is not investigated by this current study. The Adjusted R^2 of 0.689 is not by far to the coefficient of determination value of 0.734 justifying the model goodness of fit for generalization. The F-statistics value 29.575 indicates the models goodness of fit to the data.

Conclusion and Recommendation

Nigeria as a mono economy solely depending on oil revenue as major source of income. In realization of the serious implications of finite oil reserves and fragility of oil prices in the world market, present administration exploit alternative sources of national income generation. The study findings revealed that there exist a significant and positive relationship between Gross Domestic Product (GDP), and Domestic Saving on MSMEs, Government Expenditure on MSMEs and Foreign Direct Investment on MSMEs. Therefore, this study recommends that steadily increasing government expenditure on MSMEs to improve and enhance productivity and performance of MSMEs. Small

and Medium Enterprises Development Agency of Nigeria (SMEDAN) in collaboration with Central Bank of Nigeria (CBN) need to strengthen the policy guidelines of credit facilities through moral suasion or special directive to deposit money banks disbursing loans to entrepreneurs at a lower interest rate, in order to encourage sustainable self-sufficiency for new entrepreneurs and enhance productivity in entrepreneurship development. Nigerian government ought to boost exportation of our locally manufactured goods to improve external foreign exchange earnings and increase the competitiveness of Nigerian MSMEs product in world market and lieu foreign investors and foreign direct investment.

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