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WILL MANUFACTURING PERFORMANCE EVER IMPROVE IN NIGERIA AS EXPECTED? A CONSIDERATION WITH POVERTY IN FOCUS

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Abstract

Despite efforts toward industrialization since 1960, Nigeria remains underdeveloped as of 2020 and may not achieve significant industrialization by 2040. Numerous investment policies have been implemented, yet poverty rates continue to rise. This study examines the responses of poverty to manufacturing sector performance in Nigeria, relying on country specific data from 1981 to 2022. The role of industrialization hung on the development and improvement of the manufacturing sector to reduce poverty. Historical evidences suggest that manufacturing performances had little impact on poverty reduction in Nigeria over the period. We used dynamic ordinary least squares (DOLS) techniques to show that manufacturing sector performance can reduced poverty by at least 9 percentage points at an instance of manufacturing performance growth albeit small. We argued for local content financial assistance as an effective financial model to manufacturing sector improvement for poverty reduction as an option against external finances as a policy option.

Keywords: *Dynamic Ordinary Least Squares, Manufacturing Output, Manufacturing Performance, Manufacturing Value Added, Nigeria, Poverty Reduction*

1. INTRODUCTION

Manufacturing, generally believed, contributes to the growth of an economy through production of goods for both consumption in the country and export to other countries. It is therefore, supposed to play a positive role in poverty reduction through employment and training. Industrialization is the process of transforming the economy of a nation or region from a focus on agriculture to a reliance on manufacturing. Thus, manufacturing promotes industrialization and builds up a country's capacity to produce varieties of goods and services - extraction of raw materials and production of semi-finished and finished goods.

According to Adofu et al. (2015), manufacturing involves producing goods for sale or use through tools, machines, labor, and chemical or biological processes. It combines human handicraft and advanced technology, transforming raw materials into finished products. Industrialization today relies on technological advancements, shifting economies from traditional low-production to modern mass-production systems. This transformation enhances efficiency through the strategic application of management techniques and technology, promoting high-tech production.

At Nigeria's independence in 1960, the economy primarily provided agricultural raw materials to advanced economies, particularly Britain. Manufacturing was minimal, largely controlled by multinationals, and colonial policies did not prioritize industrial

development (Egwaikhide, 2001; Banjoko, 2009). Consequently, Nigeria's high poverty levels stem from neglecting the manufacturing sector.

Ou (2015) argue that industrial development involves modern technology and equipment to produce goods and enhance societal welfare. However, despite Nigeria's rich natural resources, the World Bank reports that many Nigerians live on less than $2 a day. The economy faces challenges, including reliance on imports, decaying infrastructure, underutilization of manufacturing capacity, poor management, and neglect of agriculture, leading to a lack of diversification and declining living standards.

Despite efforts toward industrialization since 1960, Nigeria remains underdeveloped as of 2020 and may not achieve significant industrialization by 2040. Numerous investment policies have been implemented, yet poverty rates continue to rise. Poverty in Nigeria escalated from 32.2% in 1981 to 60% in 1990, with further increases, reaching 67.6% in 1995 and continuing trends of 66.7% in 2002, 69.9% in 2013, and 63% in 2022.

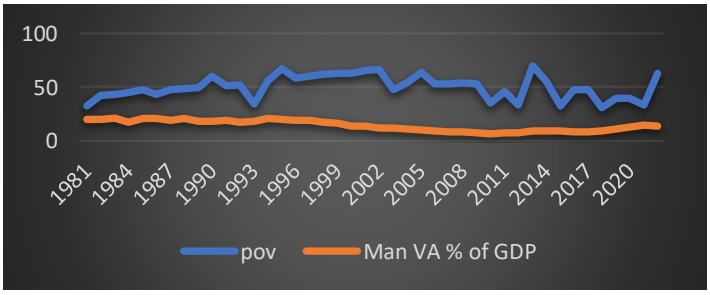

Figure 1. Growth of Manufacturing value added and poverty in Nigeria (1981-2022)
Source: Authors

Various industrial development policies and medium-term economic plans have recognized that manufacturing can sustain a minimum growth rate of 15% annually, contribute over 7% to gross domestic product, and reduce poverty. However, by 2019, Nigeria had the highest number of people living below the poverty line. Despite these proposals, evidence from the growth of manufacturing value added indicates a dismal trend (Figure 1). The growth rate was 20.26% in 1981, rising to only 21.02% in 1988 and 20.93% in 1994. After 1994, the growth of manufacturing value added continued to decline, with a peak of just 14.61% recorded in 2021. This disappointing trend in manufacturing growth correlates with an upward trajectory in the manufacturing performance-poverty nexus (Figure 2).

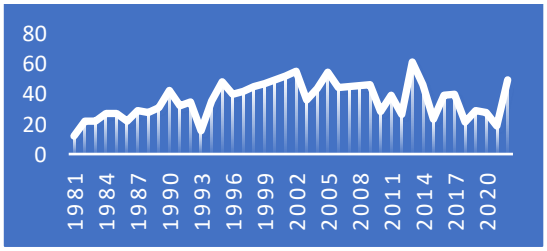

Figure 2. Gaps in manufacturing value added growth and poverty in Nigeria (1981-2022)
Source: Authors

Some have attributed the dismal performance of Nigeria's manufacturing sector to neglect following the discovery and exploration of oil (Adeola & Evans, 2017; Ewubare & Okpani, 2018)). There is an urgent need for Nigeria to produce what it consumes and utilize local resources. Recent experiences in East and Southeast Asia show that diversifying into manufacturing and industrial production is crucial for poverty reduction, highlighting a significant gap in Nigeria's economic strategy.

The above provides a basis for the prompt reasoning if manufacturing sector performance is growing as expected to put a decline in rising poverty incidences in Nigeria in recent times. Thus, following this introduction, the rest of the paper is structured as follows: section 2 highlights the literature review; section 3 presents the methodology for the study; section 4 reports the results of the study; section 5 concludes with evidenced recommendations.

2. LITERATURE REVIEW

2.1. Theoretical Framework

Endogenous Growth Theory explains long-term economic growth based on internal factors, not external ones like the neoclassical theory. Economists such as Arrow, Romer, and Lucas developed endogenous growth models, which focus on human capital, innovation, and knowledge as crucial elements. This theory also highlights the positive effects of knowledge-based activities on economic development and productivity. Policy measures can influence the economy's long-term growth rate, according to King and Rebelo (1999). Romer (1994) emphasizes the importance of a research sector producing new knowledge through human capital and existing knowledge, rather than natural resources like Japan successfully did with limited resources by importing and improving foreign technology. Central to this theory is the belief that knowledge is a key driver of economic growth, leading to positive externalities in a knowledge-based economy. Classical economists argue that free markets self-adjust and government intervention restricts market activities, while Keynesians believe fiscal policy has a greater impact on economic growth than monetary policy. The Endogenous growth model was created to address limitations of the Solow Growth model, which treated technology as an external factor. Romer (1987) states that technology is not random but can be influenced, making it an internal driver of growth rather than an external factor.

2.2. Empirical Review

a) Literature on Manufacturing/Industrialization

Aremu (2005) emphasizes that growth acceleration is often linked to an increasing role of manufacturing in the economy. Szirmai and Verspagen (2015) found that manufacturing positively impacts economic growth in their analysis of 88 countries from 1950 to 2005. This supports Keynesian theory, which advocates for government intervention to promote economic development and alleviate poverty Sachs (2006). Penélope and Thirlwall (2013) confirmed that steady growth in the manufacturing sector drives positive and sustained economic growth.

Kaldor (1966) identified three laws illustrating manufacturing's influence on economic growth: an increase in manufacturing output enhances national output; economic growth and development are manufacturing-based; and advanced economies

are industrialized due to significant manufacturing contributions. Anyanwu (1997) describe industrialization as building a nation's capacity to convert raw materials into finished products, thereby enhancing industrial performance and reducing poverty.

Kirkpatrick (1985) noted that industrialization changes a country's economic structure, emphasizing the importance of the manufacturing sector. CBN (2002) identifies Nigeria's industrial components as manufacturing, construction, electricity, mining, water, and gas. Industrial policy is defined as state interventions affecting industrial activities (Foreman-Peck & Federico, 1999; Busari, 2005).

Isiksal and Chimezie (2016) demonstrated that developing countries cannot achieve economic growth without sub-sector linkage, finding a significant long-run relationship between agriculture, industry, services, and GDP in Nigeria from 1997-2012 using the Johansen co-integration testing approach.

b) Literature on Poverty

The United Nations defines poverty as a denial of choices and opportunities, violating human dignity, which manifests as a lack of basic necessities like food, clothing, education, and healthcare. This creates insecurity, powerlessness, and social exclusion, often leading to violence and marginal living conditions. Poverty reduction is correlated with industrial and manufacturing performance.

The World Bank in 1996 describes poverty as pronounced deprivation in well-being, including low incomes and inadequate access to essential goods and services. It encompasses poor health, education, and security, reflecting a lack of freedom and self-belief (Narayan, 2000). In this study, poverty reduction is linked to enhancing opportunities through industrial production, manufacturing output, and employment, which can elevate incomes and alleviate pressure on agricultural land.

Empirical studies, such as those by Ebong et al. (2014), demonstrate the relationship between industrialization, economic growth, and poverty reduction. Key indicators of underdevelopment include low levels of human, business, infrastructure, natural, institutional, and knowledge capital. Sachs advocates for a clinical approach to anti-poverty interventions, recognizing the complexity of economies and the need for tailored solutions to address systemic failures (Adeola & Evans, 2017).

c) Manufacturing Sector Performance – Poverty Nexus

Factors influencing manufacturing sector performance and poverty reduction in Nigeria include weak institutional environments, such as corruption, which hampers market functionality, and geographical isolation, which limits access to essential goods. Tailored policy agendas are essential to combat poverty, as noted by critics of Sachs' approach, which resembles outdated "big push" strategies that lacked effectiveness (Adeola & Evans, 2017). A more "bottom-up" strategy may be necessary, as capital goods distribution can lead to black markets and require stricter controls to prevent aid abuse (Teal, 1999).

Least Developed Countries (LDCs) have seen little benefit from the global economy, with reliance on basic farm goods and raw materials making them vulnerable to external shocks. The UNCTAD Report (2009) asserts that market mechanisms alone won't build productive capabilities, necessitating active government involvement for

sustainable growth. Historical evidence shows that no LDC has expanded its industry through market reliance alone.

Nigeria, despite a 7.4% average economic growth rate, faces significant poverty, with 43% of its population below the poverty line and rising unemployment, exacerbated by the COVID-19 pandemic and inflation. Vulnerability to poverty affects both current and potential impoverished households, with risk factors including household characteristics, food insecurity, and socio-economic status. Approximately 61.68% of Nigerians are vulnerable to food poverty, highlighting the need for increased food production and distribution.

d) Overview of Related Literature

Findings indicate that globalization significantly impacts industrial development in Nigeria by promoting trade opportunities and enhancing financial liberalization. Ogunrinola and Osabuohien (2010) found that globalization positively affects employment generation and industrial sector performance. Johnson et al. (2005) noted increased manufacturing employment in developing countries, while Ndiyo and Udah (2003) explored challenges of openness in Nigeria. Dercon (2009) emphasized policy inconsistencies, and Obioma and Ozughalu (2005) found that long-term industrialization negatively affects economic growth.

The textile industry thrived until the mid-1980s, with a 67% annual growth rate and 25% of the manufacturing labor force. Its decline resulted from policy neglect, inadequate infrastructure, reduced cotton production, and increased textile imports. From the 1960s to the mid-1970s, Nigeria aimed to convert raw materials into manufactured goods. However, Structural Adjustment Programmes (SAP) introduced in the mid-1980s hindered growth, with manufacturing employment plummeting from 250,000 in 1985 to just 21,000 by 2010.

Capacity utilization fell from 79.7% in 1976 to 48% in 2005 (Akanji, 2010), leading to over two million job losses (Riaz & Junaid, 2011). According to Aduhene and Osei-Assibey (2021), factory closures adversely affected over one million people, resulting in severe socio-economic consequences. Research indicates that the effects of economic growth on poverty reduction vary by sector, with rural growth linked to more significant poverty alleviation (Ravallion & Datt, 1995). Loayza and Raddatz (2010) highlight that labor intensity in sectors like agriculture influences poverty reduction. However, studies by Christiaensen et al. (2011) suggest an increasing role of the non-agricultural sector in poverty alleviation.

Econometric analyses reveal that growth rates within sectors matter more than sector shifts (Ravallion & Datt, 1995), although challenges such as endogeneity issues exist. China's Outline of Rural Pro-poor Development (2001-2010) proposed industry-based poverty alleviation (Van Nguyen & Lv, 2021). However, failures often stem from government projects overlooking rural household needs (Huang et al., 2017). Limited studies focus on rural household responses to industry-based poverty alleviation, with a need to connect these responses to sustainable poverty alleviation through a "people–industry–land" framework.

Despite significant poverty in developing countries (Ogbeide & Agu, 2015), the UN views poverty as a violation of human dignity. The Kuznets model suggests that poverty initially increases with industrial growth but eventually decreases (Mellor, 1972).

Empirical evidence shows responses to economic growth vary by region (Bezemer & Headey, 2008). While initial industrialization may increase inequality, long-term efforts can foster inclusive growth, necessitating policies for education and job creation.

The African Union prioritizes manufacturing for economic growth, as exemplified by entrepreneurs like Aliko Dangote. However, Africa's manufacturing sector struggles with declining employment shares and capital-intensive production technologies (Diao et al., 2010). Additionally, the absence of local value chains limits the benefits of special economic zones (SEZs). Despite challenges, Africa's manufacturing sector is evolving, with opportunities in pharmaceuticals and the auto industry, supported by the African Continental Free Trade Area (AfCFTA).

Efforts to enhance social protection, such as direct cash transfers, have gained traction in North and West Africa. However, Nigeria's growth since 1970 has been insufficient in reducing poverty, characterized by non-inclusive growth patterns (NESG, 2018). This paper explores the relationship between industrial policy and poverty reduction, leveraging emerging firm-level survey data. The primary pathway for industrial policy to impact poverty is through the creation of higher-wage jobs, closely tied to economic growth (Fafchamps et al., 2001; Dollar & Kraay, 2002). Studies by Teal (1999) and Söderbom et al. (2006) highlight the significance of exporting for job creation and economic growth.

3. RESEARCH METHODS

Our study follows the efforts of previous studies, for instance, Pham and Riedel (2019) and Fasanya et al. (2013), in analyzing the poverty response to manufacturing production in Nigeria.

The primary model for the responses of poverty to manufacturing performance in Nigeria is;

$$Pov_t = Mfp_t \qquad (1)$$

Where Pov_t is poverty rate and Mfp_t is manufacturing performance. However, theory suggest that for manufacturing to perform better on poverty reduction or otherwise, supporting environment to enhance manufacturing must be in place. A key ingredient in this regard is that the regional economy must be able to support production. In this case, the model accepts gross domestic product (gdp_t) as general income of the economy. In a simple theory of production, production thrives well with rising finances to the production process. In the case of manufacturing performance, the sector grows, as the level of access to finances increases. Thus, credit assistance to the manufacturing sector ($ManIn_t$) becomes an indispensable ingredient in manufacturing production and is here included in our model. Also, even if after manufacturing production, the rate of use of manufacturing products by citizens, also determines whether poverty will lessen or otherwise. Thus, the share of manufacturing output ($S - Man_t$) in the poverty link is important. We derived our share of manufacturing products using equation (2).

$$S - Man_t = {}^{Mfp_t}/_{Pop_t} \qquad (2)$$

Equation (2) shows how the population (Pop_t) uses manufactured goods (Mfp_t) over time. A higher share of manufactured goods can reduce poverty. Our model considers inflation and savings in the economy (Sa_t). Favorable prices and systems are needed for manufacturing success, but high inflation (Inf_t) may discourage consumer spending and increase poverty. The level of savings in the economy affects the amount of credit available for the manufacturing sector.

Thus, our estimated model becomes

$$Pov_t = \partial_0 + Mfp_t + gdp_t + ManIn_t + S - Man_t + Inf_t + Sa_t \qquad (3)$$

Given the link between policy outcomes and performance in the manufacturing sector, static OLS techniques are not reliable for estimating the cointegrating equation. To address this, we used the DOLS regression method by Saikkonen (1992) and Stock and Watson (1993), which provides unbiased and efficient estimates. DOLS improves the cointegrating regression by including lags and leads of explanatory variables, ensuring the error term is orthogonal to regressor innovations. We tested the cointegrating power of our model using the Engle and Granger (1987) test and checked for stationarity using PP and DF-GLS tests. Data was sourced from the World Bank and Central Bank of Nigeria databases from 1981 to 2022.

4. RESULTS AND DISCUSSION

Table one displays the descriptive of the variables. The variable with the highest mean is savings accumulation and the lowest mean is the share of manufacturing among citizens. The main variables of interest (poverty and manufacturing sector performance) showed left-skewed tendencies, while supporting variables were mostly right-skewed. Financial assistance to the manufacturing sector had the highest skewness. All variables showed reasonable levels of peakness, with financial assistance being steeper and manufacturing sector performance being flatter. Additionally, all variables were normally distributed based on the Jarque-Bera test as it less than 0.5 percent.

Table 1. Descriptive properties of the variables

	Pov_t	Mfp_t	$ManIn_t$	Inf_t	gdp_t	Sa_t	S_Man_t
Mean	50.31690	14.30190	11842.21	19.54452	15.46666	51183.43	2.394505
Median	50.30000	13.93000	2325.886	12.87500	13.20938	5912.697	9.793306
Maximum	69.90000	21.10000	194215.8	76.80000	39.11260	302391.8	0.000126
Minimum	30.86000	6.550000	20.58177	3.600000	4.064230	66.41063	3.620607
Std. Dev.	11.01172	4.975381	30868.73	17.23825	8.405601	77481.40	3.217705
Skewness	-0.119033	-0.018331	5.224368	1.863462	0.810961	1.637386	1.802648
Kurtosis	2.053703	1.441236	31.25761	5.502420	3.192688	4.936117	5.603400
Jarque-Bera	1.666268	4.254405	1550.601	35.26611	4.668579	24.72416	34.60773
Probability	0.434685	0.119170	0.000000	0.000000	0.096879	0.000004	0.000000
Sum	2113.310	600.6800	485530.5	820.8700	649.5999	2098521.	0.001005
Sum Sq. Dev.	4971.575	1014.931	3.810910	12183.44	2896.820	2.404211	4.239808
Observations	42	42	41	42	42	41	42

Source: Authors, extracted from e-views 12.0

Table 2 present the stationarity properties of the variables in the study. As shown in Table 2, all variables were multivariate stationary at acceptable level of percentage acceptance not exceeding 10% gauged under Philip Perron and Dickey Fuller Generalized Least Squares test kids. Whereas most variables were stationary at levels (gross domestic product and inflation) others were stationary after first difference (poverty, manufacturing sector performance, credit assistance to the manufacturing sector, savings accumulation and share of manufacturing output in the economy). All variables were adjudged stationary at 5% level of acceptance. With our stationarity analysis completed, we are sure that our estimates will be stable and results reliable.

Table 2. Unit root test

variables	PP test			DF-GLS test		
	level	1st diff.	p-value	level	1st diff.	p-value
Pov_t	-4.5208***		0.0008	-1.5160	-11.1730***	0.0000
Mfp_t	-1.3308	-7.3928***	0.0000	-0.9069	-2.0893**	0.0440
gdp_t	-3.2852**		0.0221	-1.9330*		0.0607
$ManIn_t$	3.5385	-2.5932*	0.0463	1.9324	-3.2645**	0.0242
$S-Man_t$	13.2928	-3.0328**	0.0403	0.7321	-3.5223**	0.0479
Inf_t	-3.1348**		0.0317	-1.8023*	-6.0604***	0.0000
Sa_t	7.9256	-7.0168	0.0000	0.3990	-2.0353**	0.0234

Source: Author's Computation extracted from Eviews 12.0
Superscripts *, ** and *** denotes rejection of the null hypothesis of existence of unit root at 10%, 5% and 1% significance level.
Model includes intercept only with lag selected based on Schwarz information criterion

Table 3 presents the correlation characteristics of the variables in the study. Clearly, our variables of interest (poverty and manufacturing performance) was shown to be positively correlated at 0.11 basis point strength. Other variables that exhibited positive correlation with the dependent variable are inflation (0.16) basis units approximately; gross domestic product (0.36) basis units approximately and credit assistance to the manufacturing sector (0.02) basis points. Only savings accumulation and share of manufacturing performance in the economy had a negative correlation with poverty with (-0.30) and (-0.27) basis points respectively. Incidentally, savings accumulation and share of manufacturing performance also exhibited a reducing effect correlation with manufacturing sector performance but not excluding credit assistance to the manufacturing sector. A consideration of the correlation analysis shows that manufacturing performance is positively related to poverty and hence may not necessarily dipped poverty as such. However, is position is only subject to empirical justifications that comes next.

Table 3. Correlation matrix of the variables

	Pov_t	Mfp_t	$ManIn_t$	Inf_t	gdp_t	Sa_t	S_Man_t
Pov_t	1						
Mfp_t	0.106358	1					
$ManIn_t$	0.023613	-0.191209	1				

	Pov_t	Mfp_t	$ManIn_t$	Inf_t	gdp_t	Sa_t	S_Man_t
Inf_t	0.157874	0.439195	-0.1215537	1			
gdp_t	0.3576389	0.185175	-0.178466	0.573203	1		
Sa_t	-0.303128	-0.452243	0.767208	-0.26207	-0.38078	1	
S_Man_t	-0.268095	-0.448256	0.75209	-0.26310	-0.33878	0.98690	1

Source: Authors, extracted from e-views 12.0

The result of the analysis between manufacturing performance and poverty in Nigeria is presented in Table 4. Table 4 shows that a single rise in manufacturing performance in Nigeria dipped poverty growth by 9 percent and statistically significant by at least 10 percent level of significance. Much of the reducing impact of manufacturing performance on poverty was supplied by credit assistance to the manufacturing sector. As our results show, credit assistance to the manufacturing sector dipped poverty by nearly 1.1 percent and statistically significant at 1% level of significance. The economic implication here is that given adequate free flow of finances to the manufacturing sector has a poverty reducing effect of nearly 1.1 percent ultimately. However, most of the finances used in Nigeria's manufacturing sector did not come through the economy's generated savings. As our results show, savings accumulation in Nigeria felled to support manufacturing performance drive to poverty reduction. In fact, a single rise in savings accumulation in Nigeria over the study period raise poverty by 0.8 percent and statistically significant at 1 percent level of significance. This scenario sent a policy signal to manufacturing sector development using local content finance drive which could be cheaper than external finance drive. It is logical to argue that the weakening foreign exchange rate system in Nigeria at the moment is as a result of this manufacturing finance pressure on foreign income.

Table 4. Dependent Variable: Pov_t

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Mfp_t	-0.086581	0.056920	-1.521090	0.1522
gdp_t	0.011038	0.299501	0.036853	0.9712
$ManIn_t$	-0.011313	0.001716	-6.591992	0.0000
Sa_t	0.008244	0.002165	3.808573	0.0022
Inf_t	0.340636	0.192078	1.773430	0.0996
S_Man_t	1.672125	0.413584	4.043011	0.0014
C	52.22832	9.981763	5.232375	0.0002
R-squared	0.867772	Mean dependent var		50.87158
Adjusted R-squared	0.623659	S.D. dependent var		10.84006
S.E. of regression	6.650008	Sum squared resid		574.8938
Long-run variance	10.51742			

Source: Authors

Given this stance, the share of manufacturing output could not reduce poverty in Nigeria. It is either that citizens are not able to buy manufacturing goods because they are poor or simply choose to substitute non-manufacturing products for manufacturing products. As such, a single rise in the share of manufacturing products in Nigeria accelerate poverty by nearly 167 percent approximately and highly statistically

significant. In choice analysis, this implies that the citizens dislike manufacturing products by 167 percent, as it exacerbate their poor state. Equally, the spiral change in prices in Nigeria in recent history, is shown to affect manufacturing performance drive towards poverty reduction in a wrong note. For instance, a rise in inflation in Nigeria grew poverty by at most 34 percent and statistically significant at 5 percent level of significance. Rising inflation raises the prices of manufacturing products thereby making in unaffordable by Nigerian citizens and hence rising poverty up to 62 percent in 2022 up from 30.9 percent recorded in 2018. Gross domestic product also grew poverty in the study period by 1.1 percent but not statistically significant.

Overall, our analysis shows that poverty growth or reduction responded to our explanatory variables by over 62 percent approximately as shown by our adjusted R-square. We validate the usefulness of this analysis using the variance inflation factor (Table 5).

Table 5. Variance Inflation Factors

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
Mfp_t	0.281181	117.6521	6.011219
gdp_t	0.089701	47.45381	6.698289
$ManIn_t$	2.950206	53.91789	3.183635
Sa_t	4.693306	50.08376	4.783849
Inf_t	0.036894	51.04348	6.434525
S_Man_t	1.715411	18.48989	1.375827
C	99.63559	119.3862	NA

Source: Authors

We also tested for multicollinearity in the system with the Variance Inflation Factor (VIF). VIF is a measure of how much the variance of the estimated regression coefficient *bk* is "inflated" by the existence of correlation among the explanatory variables in the model. A VIF of 1 means that there is no correlation among the *kth* explanatory variable and the other variables, and hence the variance of *bk* is not inflated at all. VIFs exceeding 10 are signs of serious multicollinearity requiring correction. Our VIF result in Table 5 (VIF centered) shows that we do not have serious multicollinearity problems. Thus, our outcomes are stable and reliable. We tested the cointegration status of the model and report the result in Table 6.

Table 6. Engle-Granger Cointegration test

	Value	Prob.*
Engle-Granger tau-statistic	-5.702593	0.0332
Engle-Granger z-statistic	-36.06033	0.0325

Source: Authors

As shown in Table 6, under the null hypothesis of no series cointegration the probability of Engle Granger tau and Z statistics lower than probability 0.5% at one

percent level of significance points to the rejection of the null. In other words, series were duly cointegrated.

5. CONCLUSION

In this study, we investigated the relationship between manufacturing sector performance and poverty behaviour in Nigeria with secondary data generated from country official sources from 1981 to 2022. We showed that country specific poverty profile is on the rise even as manufacturing sector output was. We relied on the analytic powers of dynamic ordinary least squares (DOLS) to show that manufacturing sector performance has the capacity of reducing poverty by some percentage. Stated specifically, a single rise in manufacturing performance in Nigeria dipped poverty growth by 9 percent and statistically significant by at least 10 percent level of significance supported by finances credited to the sector. Credit assistance to the manufacturing sector dipped poverty by nearly 1.1 percent and statistically significant at 1% level of significance. Other supporting variables to manufacturing sector performance on poverty reduction were not effectual in assisting the manufacturing sector to delivers effectively on poverty reduction, attributable mostly to country-specific peculiarities. For policy, we proposed credit-finance-specific attention on the manufacturing sector to reduce poverty. This credit-finance-specific attention is better when it is local content created. As our study shows, reliance on foreign finances to the manufacturing sector is poverty-accelerating and ill-induced. Moving forward, manufacturing sector performance will be sure to deliver effectively on poverty reduction in years to come

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