

Deposit Money Banks and Productivity of the Manufacturing Sector in Nigeria

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ABSTRACT

This study investigates the relationship between deposit money banks (DMBs) and the productivity of Nigeria's manufacturing sector, with emphasis on bank profitability, credit allocation, and prime lending rate. The objectives were to determine the effect of DMB profitability on manufacturing output, assess the influence of DMB credit, and evaluate the impact of prime lending rates. Annual time-series data covering 1998–2024 were analyzed using the Autoregressive Distributed Lag (ARDL) estimation technique, appropriate given the mixed integration orders revealed by unit root tests. The descriptive statistics indicated that manufacturing productivity averaged 9.19, DMB credit 9.97, profitability 11.15, and prime lending rate 2.69, reflecting moderate variability. Correlation analysis showed positive associations between profitability and productivity ($r = 0.55$) and between prime lending rate and productivity ($r = 0.50$). The ARDL results revealed that DMB credit had a strong and statistically significant positive effect on manufacturing productivity (short-run coefficient = 1.35, $p < 0.01$; long-run coefficient = 0.95, $p < 0.01$). Conversely, prime lending rate exerted a negative effect in lagged terms (coefficient = -1.05, $p < 0.05$), while DMB profitability had a positive but insignificant impact (coefficient = 0.08, $p = 0.45$). The bounds test confirmed cointegration (F -statistic = 5.66 > 5% upper bound of 4.35), establishing a long-run relationship among the variables. The implications of these findings are that credit availability from DMBs is a critical driver of manufacturing sector growth, while high lending rates constrain productivity by increasing financing costs. Bank profitability, though positive, does not directly translate into significant improvements in industrial output. The study concludes that expanding credit facilities at concessionary interest rates would enhance manufacturing productivity and contribute to Nigeria's broader economic development.

Keywords: Deposit money banks, manufacturing productivity, prime lending rate, profitability, ARDL, cointegration



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INTRODUCTION

The manufacturing sector is a critical driver of import substitution, export expansion, foreign exchange earnings, employment generation, improved consumption patterns, and enhanced standards of living.

Beyond these contributions, the sector plays a strategic role in fostering long-term economic growth and structural transformation. Deposit money banks (DMBs) constitute a major conduit through which financial resources are

mobilized and channeled to the manufacturing sector, performing a vital intermediation function in the economy (Eke et al 2023).

In Nigeria, the manufacturing sector significantly contributes to economic growth and development through job creation, value addition to raw materials, and increased contributions to gross domestic product (GDP). The sector transforms agricultural and mineral resources into finished goods, thereby promoting industrialization and reducing overdependence on crude oil. Additionally, the manufacturing sector supports micro, small, and medium enterprises (MSMEs) by strengthening supply chains through distributors and logistics providers, while also contributing to government revenue through taxation (Uyo et al., 2024). The operations of the manufacturing sector are heavily dependent on the financial support of deposit money banks, which mobilize funds from individuals, governments, institutions, and the general public for allocation to productive sectors of the economy. DMBs provide essential financing in the form of working capital, as well as funds for expansion and modernization of manufacturing firms. Through both short-term and long-term credit facilities, deposit money banks enable manufacturers to expand operations, invest in new technologies, and improve operational efficiency. In addition, banks offer advisory services that support managerial and financial decision-making within manufacturing firms (Ogar et al., 2014).

Despite the pivotal role of deposit money banks in financing manufacturing activities, the sector continues to face numerous challenges. These include high interest rates, excessive costs of credit facilities, limited access to bank loans and overdrafts, restrictive monetary policies, low capacity utilization, high production costs, and increasing reliance on alternative sources of finance. Such constraints have continued to weaken the performance of the manufacturing sector in Nigeria. Empirical evidence indicates that the manufacturing industry remains economically vulnerable and unattractive to investors, notwithstanding various policy measures aimed at improving credit access. Studies reveal that loans and advances extended to the sector often fall below the prescribed minimum benchmarks. Furthermore, loan growth rates declined in 2017 and 2018 by -2.3% and -3.9% , respectively, underscoring persistent financing challenges within the sector (Central Bank of Nigeria, 2009; Ademola, 2023). In light of the foregoing, it is evident that the Nigerian manufacturing sector continues to grapple with low productivity and profitability, coupled with high lending and prime credit rates imposed by deposit money banks. Consequently, this study seeks to examine the effect of deposit money banks on the productivity of the manufacturing sector in Nigeria (Yua et al., 2021).

Objective of the study

The general objective of the study is to examine the effect

of Deposit money bank and productivity of manufacturing sector in Nigeria

Specifically are to:

- i. examine the effect of productivity of the manufacturing sector on Nigeria economy
- ii. determine the effect of deposit money bank profitability on the manufacturing sector in Nigeria
- iii. investigate the influence of deposit money credit on the manufacturing sector in Nigeria
- iv. determine the effect of deposit money banks' prime lending rate on manufacturing sector in Nigeria

Literature Review

Deposit money banks (DMBs) are financial institutions primarily mandated to provide short- and medium-term credit facilities to borrowers. However, over time, their scope of operations has expanded to include the provision of long-term financing, particularly in the form of loans and other credit instruments, to support productive economic activities (Yua et al., 2021). Deposit money banks mobilize financial resources from individuals, organizations, government entities, and the general public, and allocate these funds to the manufacturing sector to support day-to-day operations and enhance productive capacity. Through this intermediation process, DMBs play a vital role in facilitating capital formation and improving operational efficiency within the manufacturing sector.

The manufacturing sector benefits from access to loans, credit facilities, advisory services, and trade finance provided by deposit money banks, which collectively contribute to improved productivity through effective utilization of financial resources. Access to these facilities enables manufacturing firms to invest in technology acquisition, capital assets, and working capital, thereby strengthening production processes and overall output performance.

Empirical studies have demonstrated that deposit money bank credit, when efficiently utilized, significantly enhances manufacturing productivity by increasing output levels and alleviating financial constraints. Such access to bank financing serves as a proxy for improved productivity, as it allows firms to expand production capacity and optimize resource allocation. Interest rates play a moderating role in the relationship between bank credit and manufacturing productivity. High lending rates increase the cost of borrowing and discourage manufacturing firms from investing in long-term productive assets, thereby constraining productivity growth within the sector. In addition to credit availability, manufacturing sector productivity is influenced by other financial variables, including deposit mobilization and the depth of the financial system, which reflect the overall efficiency and development of financial intermediation in the

economy (Jones & Olele, 2024).

Productivity of Manufactory Sector

Productivity in the manufacturing sector is fundamentally associated with efficiency, which refers to the process through which inputs such as labour, capital, and technology are optimally combined and transformed into finished outputs. This process reflects the ability of manufacturing firms to convert resources from their original state into value-added goods and services. Efficiency therefore captures the effectiveness with which productive inputs are utilized in the manufacturing process and serves as a key indicator of productivity performance within the manufacturing sector (Shankar & Aroulmoji, 2020).

Deposit Money Banks Profitability

Profitability is a key indicator of financial health in both deposit money banks (DMBs) and the manufacturing sector, and it is essential for operational efficiency and long-term sustainability. In the banking sector, sustained profitability reflects institutional stability and the capacity to support productive economic activities. Manufacturing sector productivity is significantly influenced by the profitability of deposit money banks, as bank profitability determines both the availability and quality of financial services extended to manufacturing firms. Profitable DMBs possess the financial strength required to provide adequate credit facilities, invest in financial technologies, and meet the short- and long-term financing needs of the manufacturing sector. Consequently, the profitability of deposit money banks enhances their ability to support manufacturing productivity through improved financial intermediation and resource allocation (Chikamso et al., 2025).

Deposit Money Bank Credit to Manufacturing Sector

Credit refers to the flow of financial resources from financial institutions to the manufacturing sector and constitutes a critical driver of sectoral growth, capital investment, and working capital financing. Deposit money banks (DMBs) extend credit facilities to manufacturing firms to enhance productivity by enabling efficient resource utilization and improved operational performance (Ndangra et al., 2025). The manufacturing sector relies heavily on credit provided by deposit money banks to finance core operational activities, including the acquisition of capital assets and production equipment, as well as the purchase of raw materials necessary for continuous production processes (Bello et al., 2021). An increase in credit supply to manufacturing firms facilitates business expansion, technological upgrading, and capacity enhancement, which collectively contribute to higher

productivity levels within the manufacturing sector.

Prime Lending Rate (PLR)

The prime lending rate (PLR) represents the interest rate charged by deposit money banks (DMBs) to creditworthy customers and constitutes an important monetary policy transmission mechanism that influences production capacity and investment decisions within the manufacturing sector. Changes in the prime lending rate directly affect the cost of credit, thereby shaping borrowing behavior and investment outcomes in manufacturing firms. Fluctuations in the prime lending rate have significant implications for the manufacturing sector, which relies heavily on bank financing. An increase in the lending rate raises the cost of borrowing, discouraging manufacturing firms from accessing credit to finance projects, business expansion, and technological upgrades. Conversely, lower lending rates reduce borrowing costs and stimulate investment activities within the sector (Ndangra et al., 2025). Empirical evidence indicates that rising lending rates reduce both the affordability and accessibility of credit to manufacturing firms, thereby constraining productivity growth. In contrast, a lower prime lending rate facilitates easier access to relatively cheaper credit, enabling manufacturing firms to expand production capacity and improve productivity (Onyia & Okafor, 2023).

Theoretical Review

Financial intermediation theory

This theory posits that financial institutions mobilize savings from surplus economic units and channel these funds to deficit units for productive investment. Through this process, financial intermediaries play a critical role in facilitating efficient resource allocation within the economy. Deposit money banks (DMBs) enhance financial intermediation by reducing information asymmetry and transaction costs, thereby improving access to finance for manufacturing firms. This efficiency in intermediation promotes higher capacity utilization, increased investment, and improved productivity in the manufacturing sector (Scholtens & Van Wensveen, 2000). Within this framework, bank credit and the prime lending rate serve as key transmission mechanisms through which financial intermediation influences manufacturing sector productivity. Adequate credit availability and favorable lending rates enhance firms' ability to finance productive activities, while restrictive credit conditions and high lending rates constrain investment and productivity growth.

Credit Creation Theory

Proponents of the credit creation view contend that banks actively create credit through their lending activities, rather

than merely functioning as intermediaries of existing savings. According to this perspective, the credit generated by banks is allocated across various sectors of the economy to finance productive economic activities, including manufacturing operations, expansion of production capacity, and technological advancement. This school of thought further asserts that banks' profitability and lending behavior play a decisive role in determining the volume and distribution of credit creation available to different sectors of the economy, including the manufacturing sector. Consequently, the extent to which manufacturing firms can access credit for investment and productivity enhancement is largely influenced by banks' financial performance and credit allocation strategies (Werner, 2016).

Empirical Review

Using secondary data and the Autoregressive Distributed Lag (ARDL) model, Omankhanlen and Akinsanya (2025) examined the effects of deposit money banks' credit, inflation, and interest rates on Nigeria's manufacturing sector over the period 1985–2022. The findings revealed a positive relationship between lending rates and manufacturing output, leading the authors to recommend the implementation of effective macroeconomic policies aimed at achieving price stability in Nigeria.

Similarly, Ademola, (2023) investigated the determinants of deposit money bank credit to the manufacturing sector in Nigeria between 1986 and 2021, using data from the Central Bank of Nigeria (CBN) Statistical Bulletin. Employing the Augmented Dickey–Fuller (ADF) unit root test and the ARDL approach, the study found that inflation and the prime lending rate exerted positive but statistically insignificant long-run effects on bank credit to the manufacturing sector. The authors recommended that the CBN adopt sound monetary and macroeconomic policies to enhance banks' lending capacity to manufacturing firms.

Asaley et al. (2018) analyzed the causal, shock, and long-run relationships between the banking industry and the manufacturing sector using Granger causality tests, Vector Error Correction Model (VECM), and Dynamic Ordinary Least Squares (DOLS) techniques. The results indicated predominantly unidirectional causality, supporting both the supply-leading and demand-following hypotheses, except for market capitalization and manufacturing output. The study advocated the use of the credit channel as a monetary policy transmission mechanism, particularly through interest rate management, to stimulate manufacturing sector performance.

Yua et al. (2021) examined the relationship between deposit money bank credit and Nigeria's industrial output using time-series data from the CBN Statistical Bulletin spanning 1981–2018. Applying parsimonious regression, ADF, and ARDL bounds testing techniques, the study

found that money supply and deposit money bank credit exerted significant effects on industrial output. The results further revealed that bank credit, lending rates, and inflation significantly influenced manufacturing output. Consequently, the study recommended increased government capital expenditure on infrastructure and the formulation of policies aimed at moderating lending rates to enhance manufacturing productivity.

Extending this analysis, Yua et al. (2024) assessed the impact of deposit money bank credit on Nigeria's industrial sector production using data from 1981 to 2022. Descriptive and econometric analyses revealed that bank credit, lending rates, and inflation rates were significantly associated with manufacturing output. The study emphasized the need for timely fiscal and monetary policy interventions to regulate lending rates and curb inflation in order to improve manufacturing sector productivity.

Ndangra et al. (2025) investigated the growth dynamics of Nigeria's manufacturing sector in relation to deposit money bank credit and lending rates, using annual data from 1980 to 2023 obtained from the National Bureau of Statistics and the CBN. Employing an ex post facto research design and the ARDL model, the findings indicated that credit to the manufacturing sector significantly increased manufacturing output in both the short and long run. The study concluded that enhancing credit availability and reducing lending rates are essential for industrial expansion and recommended policies to improve loan accessibility for SMEs, promote financial inclusion, and boost sectoral competitiveness.

In a related study, Akpan et al. (2016) examined the impact of lending rates on Nigeria's manufacturing sector using annual data from 1981 to 2014 and the Vector Error Correction Model (VECM). The empirical results revealed that high lending rates exert a significant negative long-run effect on manufacturing productivity. The study recommended the implementation of investment-friendly policies aimed at narrowing lending rate spreads to enhance production growth and global competitiveness.

Ekadi et al. (2025) analyzed the effect of interest rate spread on manufacturing sector growth in Nigeria from 1990 to 2023, using data from the World Bank's World Development Indicators and the CBN Statistical Bulletin. The Augmented Dickey–Fuller test and ARDL technique were employed, with results indicating a significant long-run relationship between interest rate spread and manufacturing sector performance. The findings revealed that widening interest rate spreads negatively affect manufacturing growth, prompting recommendations for the CBN to implement measures to reduce interest rate differentials.

Finally, Usio (2021) examined the relationship between lending rates and manufacturing sector growth in Nigeria between 1986 and 2020 using the Ordinary Least Squares (OLS) method. The results showed a negative and insignificant effect of inflation on manufacturing growth, while lending rates exhibited a positive but insignificant

Table 1: Descriptive statistics results.

| | LDMBC | LDMBP W | LPMN | LPRT |
|--------------|--------------|----------------|-------------|-------------|
| Mean | 9.969241 | 11.15252 | 9.189765 | 2.692341 |
| Median | 9.771777 | 11.47268 | 9.147539 | 2.889260 |
| Maximum | 13.13883 | 12.68757 | 11.99493 | 3.394508 |
| Minimum | 6.843857 | 9.417593 | 6.124465 | 1.631199 |
| Std. Dev. | 1.715419 | 1.012278 | 1.713061 | 0.494527 |
| Skewness | 0.188434 | -0.494776 | 0.032663 | -0.515680 |
| Kurtosis | 2.205213 | 1.912713 | 2.011872 | 2.106100 |
| Jarque-Bera | 0.870430 | 2.431581 | 1.103248 | 2.095607 |
| Probability | 0.647125 | 0.296476 | 0.576013 | 0.350707 |
| Sum | 269.1695 | 301.1181 | 248.1237 | 72.69319 |
| Sum Sq. Dev. | 76.50925 | 26.64240 | 76.29905 | 6.358473 |

Source: Authors Compilation (2026)

Table 2: Correlative Analysis.

| | LDMBC | LDMBP | LPMN | LPRT |
|-------|---------------|--------------|--------------|--------------|
| LDMBC | 1 | 0.2164696240 | 0.1640591700 | 0.398341278 |
| LDMBP | 0.2164696240 | 1 | 0.5543549518 | 0.6668965237 |
| LPMN | 0.1640591700 | 0.5543549518 | 1 | 0.4993364056 |
| LPRT | 0.39834127885 | 0.6668965237 | 0.4993364056 | 1 |

Source: Author's Computation (2026)

impact. The study recommended continuous monitoring of interest rate deregulation by the Central Bank of Nigeria through appropriate monetary policy measures.

- β_0 is the intercept,
- β_1 – β_3 are the slope coefficients, and
- ϵ_t is the stochastic error term.

MATERIALS AND METHODS

Research Design and Model Specification

This study adopts a quantitative research design, employing time-series econometric techniques to examine the relationship between deposit money banks (DMBs) and the performance of Nigeria's manufacturing sector. The functional relationship between banking sector variables and manufacturing sector productivity is specified as follows:

$$PMN=f(DMBP,DMBC,PRT)$$

The econometric form of the model is expressed as:

$$PMN_t=\beta_0+\beta_1DMBP_t+\beta_2DMBC_t+\beta_3PRT_t+\epsilon$$

where:

- PMN represents productivity of the manufacturing sector,
- DMBP denotes deposit money bank profits,
- DMBC refers to deposit money bank credit to the manufacturing sector,
- PRT is the prime lending rate,

Data Sources and Period of Study

The study utilises annual time-series data spanning the period **1998 to 2024**. The data were sourced from relevant secondary sources, including publications of the Central Bank of Nigeria (CBN) and other official statistical databases. All variables were transformed appropriately to ensure consistency and reliability of the estimates.

Estimation Technique

The Autoregressive Distributed Lag (ARDL) estimation technique was employed for the analysis. The choice of the ARDL approach is justified by the mixed order of integration observed among the variables, as revealed by unit root tests, where the series were integrated of order zero, $I(0)$, and order one, $I(1)$. The ARDL methodology is suitable under such conditions and allows for the simultaneous estimation of both short-run and long-run relationships. The ARDL framework involves estimating the short-run dynamic model and the long-run equilibrium relationship between the variables. In addition, the ARDL bounds testing approach to cointegration was applied to determine the existence of a long-run relationship among the variables. Where cointegration was established, both the long-run coefficients and the associated error correction mechanism (ECM) were estimated to capture

the speed of adjustment to equilibrium following short-run shocks.

The model used to analyse DMB and the performance of the manufacturing sector stated below:

$$PMN = F(DMBP, DMBC, PRT)$$

This is stated functionally below:

$$PMN = b_0 + b_1 DMBP + b_2 DMBC + b_3 PRT + VT$$

Where:

PMN = Productivity of the manufacturing sector

DMBP = Deposit money bank profit

DMBC = Deposit money bank credit to manufacturing sector

PRT = Prime lending rate

VT = Error term

The study employed annual time-series data covering the period 1998–2024. The model was established using the ARDL estimation technique. This is because the variable had mixed order of integration in the unit root test. The static long run model, short run dynamic model and long run model as well as the bounds test were estimated.

RESULTS AND DISCUSSION

The mean for DMBC is 9.97 which is higher than the median value of 9.77, an indication that the DMBC improved over the study period. The maximum figure for

DMBC is 13.14 while the minimum figure is 6.84 (Table 1). The standard deviation (SD) of 1.72 is satisfactory. The average value for DMBP is 11.15 and the median is 11.47 indicating that the DMBP did not improve significantly. The highest value is 12.69 while the lowest value is 9.42. The mean for PMN is 9.19 while the median value is 9.15. This indicates that the PMN improved substantially during the period. The highest and lowest values are 11.99 and 6.12 respectively. The SD of 1.71 is satisfactory. The average value for PRT is 2.96 and the median is 2.89. The maximum and minimum values are 3.39 and 1.63. The SD of 0.49 is sufficient. The result of the correlation analysis is shown in (Table 2).

The correlation coefficient (CC) between DMBC and DMBP is 0.22 which is a weak and positive correlation. The correlation coefficient between DMBC and PMN is 0.16 which is low and positive. The correlative coefficient between DMBC and PRT is 0.40 which is low and positive. Overall the result indicated an absence of multicollinearity among the variables. The result of the ADF unit test is shown in (Table 3).

The result indicated that three of the first difference was taken, while the PRT was starting at the level. This indicates that three variables are I(1) and one is I(0). This supports the adoption of the ARDL estimation technique as the preferred method to analyze the data. The result of the static long run ARDL result is shown in the (Table 4). According to the coefficient of determination, the DMBP, DMBC, and PRT together accounted for 93% of the overall variation in the PMN. Just 7% of the change is unexplained. The manufacturing sector's performance is positively

Table 3: Summary of ADF unit root test result.

| | Level data | First difference | Order of integration |
|------|------------|------------------|----------------------|
| DMBC | -0.10 | -3.86* | I(1) |
| DMBP | -2.01 | -4.88* | I(1) |
| PMN | -0.86 | -7.89* | I(1) |
| PRT | 5.67* | -9.79 | I(0) |

NB: 1% critical value = -3.72. I(1) means after first difference.

Table 4: Static ARDL result, dependent variable: PMN.

| Variable | Coefficient | Std. Error | t-Statistic | Prob.* |
|----------|-------------|------------|-------------|--------|
| LPMN(-1) | -0.148706 | 0.207428 | -0.716906 | 0.4844 |
| LPMN(-2) | -0.280408 | 0.217441 | -1.289581 | 0.2167 |
| LDMBP | 0.118117 | 0.153089 | 0.771563 | 0.4524 |
| LDMBC | 1.350892 | 0.293397 | 4.604308 | 0.0003 |
| LPRT | 0.134756 | 0.329729 | 0.408687 | 0.6885 |
| LPRT(-1) | 0.361392 | 0.319906 | 1.129681 | 0.2764 |
| LPRT(-2) | 0.702845 | 0.459653 | 1.529077 | 0.1471 |
| LPRT(-3) | -1.049713 | 0.469289 | -2.236817 | 0.0409 |
| C | -2.263639 | 1.479413 | -1.530092 | 0.1468 |

R² = 0.93, OW = 1.99. Source: Author's Computation

Table 5: Summary of bound test result for Cointegrating

| Test Statistic | Value | k |
|-----------------------|----------|----------|
| F-statistic | 5.662199 | 3 |
| Critical Value Bounds | | |
| Significance | 10 Bound | 11 Bound |
| 10% | 2.72 | 3.77 |
| 5% | 3.23 | 4.35 |
| 2.5% | 3.69 | 4.89 |
| 1% | 4.29 | 5.61 |

Source: Author's Computation

impacted by the deposit money bank credit. The manufacturing sector's productivity rose by 1.35 units for every unit rise in commercial bank credit. There was a negative correlation between the manufacturing sector's productivity and the prime lending rate at lag 3. The industrial sector's success is positively impacted by the profitability of deposit money banks. The findings also demonstrate that the DMBC is statistically significant in explaining the shifts in the manufacturing sector's performance, with a t value of 4.60 and a probability of 0.0003. This implies that the alternative hypothesis is accepted and the null hypothesis is rejected. In terms of explaining the shift in the manufacturing sector's performance, the DMBP is not statistically significant. When it comes to explaining the shift in the manufacturing sector's profitability, the PRT with t values of -2.24 and 0.0409 is statistically significant. The result of the bound test of Cointegrating is shown in the (Table 5).

According to the bound test result, the statistic's value of

5.66 exceeds both the lower and upper bounds. This implies that there is a long-term relationship between the variables. This allows us to estimate both the long-term outcomes and the short-term dynamics.

The short-term dynamic result did not differ from the long-term static result; it showed that, in the short term, the manufacturing sector's performance is positively correlated with the DMBP and DMBC and negatively correlated with the PRT. Additionally, the DMBC t value and PRT lag, with t values of 4.60 and 2.24 and probabilities of 0.0003 and 0.0409, are statistically significant in explaining the changes in PMN (Table 6). With a coefficient of 0.95 and a t value of 0.0000, the outcome shows that the DMBC has a long-term, positive, and considerable impact on the manufacturing sector's performance (Table 7). However, the outcome showed that the PRT has a long-term detrimental but negligible effect on the industrial sector's performance. In the long term, the DMBP was insignificant.

Table 6: Short run dynamic results dependent variable: PMN.

| Cointegrating Form | | | | |
|--------------------|-------------|------------|-------------|--------|
| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
| D(LPMN(-1)) | 0.280408 | 0.217441 | 1.289581 | 0.2167 |
| D(LDMBP) | 0.118117 | 0.153089 | 0.771563 | 0.4524 |
| D(LDMBC) | 1.350892 | 0.293397 | 4.604308 | 0.0003 |
| D(LPRT) | 0.134756 | 0.329729 | 0.408687 | 0.6885 |
| D(LPRT(-1)) | -0.702845 | 0.459653 | -1.529077 | 0.1471 |
| D(LPRT(-2)) | -1.049713 | 0.469289 | -2.236817 | 0.0409 |
| CointEq(-1) | -0.416485 | 0.177471 | -2.346783 | 0.0279 |

Source: Author's computation

Table 7: Long run result dependent variable PMN.

| Long Run Coefficients | | | | |
|-----------------------|-------------|------------|-------------|--------|
| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
| LDMBP | 0.082651 | 0.107119 | 0.771576 | 0.4523 |
| LDMBC | 0.945266 | 0.067584 | 13.986549 | 0.0000 |
| LPRT | -0.104457 | 0.299867 | -0.348343 | 0.7324 |
| C | -1.583945 | 0.967030 | -1.637948 | 0.1222 |

Source: Author's Computation

Conclusion

The reviewed empirical literature provides substantial evidence on the critical role of deposit money banks (DMBs) in influencing the performance and productivity of Nigeria's manufacturing sector. Across different methodological approaches and time periods, the studies consistently demonstrate that bank credit, lending rates, inflation, and interest rate spreads significantly shape manufacturing output and growth dynamics. While increased access to deposit money bank credit generally enhances manufacturing productivity, expansion of production capacity, and technological advancement, high lending rates and wide interest rate spreads continue to constrain credit affordability and accessibility. The findings further reveal that although some studies report positive relationships between lending rates and manufacturing output, such effects are often insignificant or counterproductive in the long run, particularly when borrowing costs are excessive. Overall, the evidence underscores the importance of effective financial intermediation, sound monetary policy, and improved credit conditions in fostering sustainable growth and competitiveness within Nigeria's manufacturing sector.

Recommendations

1. The Central Bank of Nigeria, in collaboration with relevant fiscal authorities, should implement and sustain monetary policies aimed at reducing lending rates and narrowing interest rate spreads. Lower borrowing costs will enhance credit accessibility for manufacturing firms, particularly small and medium-sized enterprises (SMEs), thereby stimulating investment, productivity, and industrial expansion.
2. Deposit money banks should be encouraged through regulatory incentives and credit guarantee schemes to increase the volume of credit extended to the manufacturing sector. Such measures would improve long-term financing for capital investment, technological upgrades, and capacity expansion, ultimately enhancing the sector's contribution to economic growth and employment generation.

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