

The Development of SME's in Pre and Post-Pandemic Nigeria: The Role of Banks



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ABSTRACT: This research paper explores how banks have impacted the growth of small and medium enterprises (SMEs) in Nigeria from 1991 to 2021. The review of existing literature discussed the challenges faced by SMEs due to the COVID-19 pandemic, which resulted in disruptions to both demand and supply. These disruptions caused revenue losses and a decrease in market confidence, further worsening liquidity constraints. The study employed a pair Granger causality test to investigate if loans from banks to SMEs influenced SME development over the research period. The variables examined included the proportion of SME contribution to GDP as an indicator of SME progress, bank loans extended to SMEs, the inflation rate (INF), and the exchange rate (EXCR). The findings reveal that neither commercial bank loans nor inflation impacted SME development without any evidence of causation. However, there was a relationship between exchange rates and SME growth. These results suggest a lasting connection between the factors studied. These outcomes recommend strengthening collaboration between the government and commercial banks to increase the share of loans directed towards SMEs for their advancement.

KEYWORDS: SME, Bank Loan, Interest Rate, COVID-19, Development

JELL Code: L26, G21, E43, E65, O10

1 INTRODUCTION

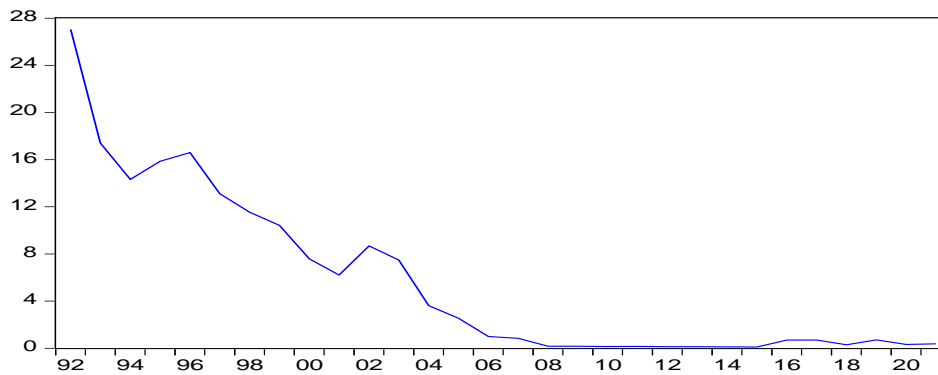
As Nigeria emerges from the COVID-19 pandemic, the role of small and medium enterprises (SMEs) in the economic recovery of local, state, and federal governments is crucial. SMEs are a diverse and dynamic segment of the economy encompassing businesses from various sectors, operating at different stages of the business life cycle, with varying ambitions and prospects. Despite their critical importance to economic growth and development, particularly in developing economies, SMEs in Nigeria often face significant challenges, particularly in accessing finance, which hampers their ability to thrive and contribute meaningfully to the economy.

In 2017, Nigeria had more than 41 million microenterprises, which made up more than 99 percent of the country's micro, small, and medium-sized enterprises (MSMEs) and employed more than 70% of the working population (Statista, 2022). Despite the significant contribution of SMEs to employment, the country continues to grapple with high unemployment rates, currently 33%, and pervasive poverty. The limited access to finance has been identified as one of the primary barriers to SME growth, with many businesses relying heavily on internally generated funds, thereby limiting their operations and expansions.

Historically, commercial banks in Nigeria have allocated only a small percentage of their total loans to SMEs. According to CBN data for 2021, commercial bank loans to SMEs as a percentage of total loans averaged 5.6% between 1992 and 2021. It was highest in 1992 (27.4%) and lowest (0.7%) in 2016 and 2017 (See Figure 1). This trend underscores the persistent challenge of inadequate financing for SMEs, which remains a significant obstacle to their growth and by extension the broader development of the country.

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Figure 1: Commercial Banks Loan to SME's (1992-2021)



Source: CBN Statistical Bulletin, Vol. 32, 2021

Several empirical studies have explored how banks influence the growth of small and medium enterprises (SMEs) in Nigeria. Researchers such as Nwosa & Oseni (2013), Afolabi (2013), and Bassey et al. (2014) conducted these studies. Bello & Mohammed (2015); Ubesie et al. (2017); Olaoye et al. (2018); Muhammad et al. (2018); Ajiboye et al. (2018) Yusufu et al. (2020) and Umar & Ndidi (2020) provided insights into this area up to a point, but they did not cover the post-pandemic period. This gap in research inspired this study to delve into how banks support SMEs, both in situations using SME contributions to the GDP as an indicator of development and commercial bank loans to SMEs as an indicator of bank support.

The research is structured as follows: The following section examines relevant literature on SME challenges during pandemic outbreaks and the impact of banks on SME development. Section 3 describes the research method. Section 4 presents the study's findings, and the final section concludes with policymakers, industry, and future research recommendations.

2. REVIEW OF EXISTING LITERATURE

2.1 The Vital Role of Small Businesses in Driving Economic Growth

Small and medium-sized enterprises (SMEs) play a role in fostering economic development at the local, state, and national levels by contributing to job creation, technological progress, product diversity, and the encouragement of local entrepreneurship. Although SMEs offer these advantages, they frequently encounter obstacles in securing financial resources, which can impede their expansion and progress. Research by Maksimov et al. (2017) reveals that SMEs are responsible for creating two-thirds of all jobs within the economy, highlighting their role as catalysts for economic advancement. This trend is notably noticeable in Nigeria, where a rising number of entrepreneurs are venturing into SME ventures encompassing sectors like beauty products, transportation logistics, event management, food retailing, interior design services, fashion industry enterprises, agricultural initiatives, and technology startups.

The classification of SMEs varies depending on which entity compiles the data. For instance, certain definitions categorize SMEs as businesses with more than 100 employees, while others extend this threshold to 500 employees, sometimes incorporating revenue as an additional parameter. Despite these discrepancies, Peoria Magazine (2014) generally describes SMEs as owned entities with staff facing day-to-day operational hurdles. The variety of interpretations also impacts how medium-sized enterprises (SMEs) obtain funding, as different industries may have requirements and capabilities that banks need to take into account when creating financial services.

There are factors that influence the establishment of SMEs, such as necessity (Fairlie & Fossen 2018), innovation (Visser, 2017; Adeosun & Shittu 2021), and opportunity (Aparicio et al., 2016). Entrepreneurs driven by necessity or the need for survival may face unemployment, while those motivated by opportunity focus on identifying and addressing market needs. Innovation-driven entrepreneurship involves enhancing processes, markets, or goods. These drivers underscore the demands of SMEs that banks must cater to with customized solutions. For example, SMEs driven by opportunity might require offerings compared to those driven by necessity, potentially impacting how banks interact with these enterprises.

SMEs play a role in revival, especially in the aftermath of the pandemic. They can swiftly adapt to shifting demand patterns and contribute to revenue, employment rates, productivity improvements, and entrepreneur development. According to the Small and Medium Enterprises Development Agency (SMEDAN), in 2022, SMEs will contribute 43.31 percent to Nigeria's GDP. SMEs employed 87.9 percent of the workforce (Yakubu, 2022). This significant boost to the economy highlights the importance of banks offering

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assistance to medium-sized enterprises, particularly in light of the economic challenges brought about by the pandemic. Small and medium-sized enterprises also play a role in their communities.

Research conducted by Civic Economics revealed that for every \$100 spent in an owned business, \$68 is reinvested back into the community through taxes, salaries, and other expenses, compared to just \$43 when spent at a national chain. This impact on economies underscores the importance of supporting SMEs not only for their contributions to the broader economy, but also for their resilience within local communities. Nonetheless, SMEs often need help to address obstacles like access, where banks can make a meaningful difference. The number of start-up failures in Nigeria has been alarmingly high, with a failure rate of 61 percent between 2010 and 2018 (Bailey, 2020).

Factors contributing to this failure rate include government policies, a lack of essential skills, inadequate funding access, and steep business registration costs. According to Femi Egbesola, the president of the Association of Small Business Owners of Nigeria (ASBON), unstable government policies hinder business success rates. Moreover, Nigeria's struggling economy has created obstacles to accessing support for infrastructure to aid businesses.

These difficulties highlight the role that banks could potentially play in assisting medium enterprises (SMEs), particularly by offering reliable and accessible financial services. Supporting SMEs is critical for sustaining the economy's growth. These enterprises serve as drivers of progress and long-term development, emphasizing the need for investment in their potential and capabilities. Banks that act as intermediaries can provide the necessary assistance for SMEs to flourish, particularly through tailored financial solutions that cater to the diverse requirements of different SME categories.

2.2 The impact of COVID-19 on Small and Medium-Sized Enterprises in Nigeria

Crises often disproportionately affect SMEs, and the COVID-19 pandemic was no different. The pandemic significantly disrupted Nigeria's economy, impacting not only industries like tourism, hospitality, transportation, logistics, and banking but also SMEs (Akbulaev et al., 2020). SMEs encountered challenges on both supply and demand fronts, further amplifying their vulnerability.

On the supply side, the pandemic resulted in a reduced labor force due to illness among workers or caregiving responsibilities during school closures and movement restrictions. The implementation of containment measures, such as lockdowns, resulted in a decrease in capacity utilization, disrupting supply chains and causing shortages of parts and intermediate goods. Small and medium-sized enterprises (SMEs), which typically have suppliers, were especially vulnerable to these disruptions.

On the demand side, SMEs faced a drop in demand and revenue, resulting in cash flow problems. Consumers faced concerns about income loss due to contagion and heightened uncertainty, which negatively impacted their spending decisions. Consumer confidence plummeted, severely impacting industries like tourism and transportation. Due to their size and limited resources, SMEs struggled more than firms when it came to adapting to these challenges. The costs associated with prevention measures and changes like telecommuting were relatively higher for SMEs due to their scale and lower digitalization levels.

The impact of the pandemic on SMEs was profound, with many businesses fighting for survival. A survey by the Fate Foundation (2020) revealed that 94.3% of respondents noted effects on their businesses caused by the pandemic, particularly affecting cash flow, sales, and revenue. The survey underscored the circumstances faced by SMEs, with only 13% having enough cash flow to sustain operations for 1–3 months. This emphasizes the importance of banks providing assistance to small and medium-sized businesses in managing cash flow difficulties during times of crisis.

Existing obstacles to capital access further hindered SMEs' ability to recover from the pandemic. The study discovered that many SMEs intended to depend on savings, loans, or help from relatives and friends to endure the pandemic. However, the inability of most businesses to provide their goods or services significantly exacerbated their cash flow issues. Banks could help SMEs overcome these obstacles by providing financing options and supporting their digital evolution.

In the long run, the pandemic may have lasting repercussions for SMEs in terms of disrupted business networks and supply chains. Once supply chains disrupt and former partners establish associations and business agreements, SMEs may face challenges in reconnecting with their networks. This underscores the significance of banks in aiding SMEs not during crises but in their recuperation and expansion during the post-pandemic era.

According to Oyewale et al. (2020), both the pandemic and government-imposed mobility restrictions significantly impacted SMEs within the agricultural and non-agricultural sectors. Their results align with research indicating that the COVID-19 outbreak greatly affected the operations and sustainability of medium-sized enterprises (SMEs) in Nigeria. Lockdown measures, restricted movement, market closures, and social distancing all played a role in determining how the pandemic impacted SMEs. These discoveries highlight

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the importance of tailored assistance from institutions to assist SMEs in overcoming the obstacles brought about by the pandemic and bouncing back during the pandemic era.

2.3 SME Development in Nigeria

Small and medium-sized enterprises (SMEs) have grown in Nigeria since the country's independence. This resulted in the establishment of the Nigerian Industrial Development Bank in 1962, as well as the World Bank's SME Loan Scheme and Small Scale Industries Credit Scheme. In 1977, the Rural Banking Initiative (RBI) was also established. The Agricultural Credit Guarantee Scheme Fund (ACGSF) and the Nigerian Agricultural Cooperative Bank were also established to increase lending to agriculture and SMEs (Ikpor et al., 2017). To mitigate the negative impact of structural adjustment programs in the mid-1980s, the government established the National Economic Reconstruction Fund (NERFUND) to provide SMEs with a five- to ten (5-10) year concessionary long-term loan (Ogujiuba et al. 2004). 214 small and medium-sized businesses received a total of \$144.9 million in intervention between 1990 and 1998. Between 1978 and 2011, the ACGSF made loans to 701,000 SMEs totaling 43.12 billion naira. In addition, to supplement domestic SME financing, the government obtained a World Bank loan in the amount of US\$270, which was distributed to SMEs through participating commercial banks in the country. To increase the availability of finance for SMEs, the government established a community banking scheme in 1991 to promote rural development and provide start-up capital to smallholders. The People's Bank and the Family Economic Advancement Program (FEAP) were also established in 1997.

The government merged the NERFUND and NIDB into the Bank of Industry in 2002 to provide loans to the industrial sector and SMEs at a 10% interest rate. Thus, it could be said that the Nigerian government has been working for a long time to develop SMEs. In addition to the foregoing, Ogujiuba et al. (2004) stated that the Central Bank of Nigeria established a number of SME-financing schemes in order to encourage the growth of SMEs in Nigeria. For example, in 2002, the Refinancing and Rediscounting Facility scheme was established at a concessionary rate to provide temporary relief to banks that make long-term production loans. In the same year, the CBN and the Bankers' Committee established the Small and Medium Industries Equity Investment Scheme (SMIEIS), which required commercial banks to set aside 10% of their annual profit before tax to finance small and medium-sized enterprises. In Nigeria, many other intervention programs have been set up to help SMEs by giving them long-term or specialized funds.

To improve SMEs' access to finance, the Central Bank of Nigeria approved an investment of N500 billion in debenture stock to be issued by the Bank of Industry (BOI) beginning in May 2010. In the first instance, N300 billion will be used for power projects, and N200 billion will be used to refinance and restructure the bank's existing loan portfolios to Nigerian SMEs and manufacturers (CBN, 2022). The goals of refinancing and reorganizing the manufacturing sector's \$200 billion in bank loans were to:

- Accelerate the development of the Nigerian economy's SMEs and manufacturing sectors.
- Improve the deposit banks' financial position.
- Aside from the aforementioned, the bank has established a N200 billion Small and Medium Enterprises Credit Guarantee Scheme (SMECGS) to promote SMEs' access to credit in Nigeria. The Central Bank of Nigeria (CBN) will provide all of the funding for the program, according to the rules.

The SMECGS's goals are as follows:

- Provide guarantees for bank credit to SMEs and manufacturers.
- Increase credit availability to SMEs and manufacturers' promoters.
- Set the tone for the industrialization of the Nigerian economy.

The overall goal of these two initiatives is to increase output, create jobs, diversify revenue, increase foreign exchange earnings, and provide inputs to the industrial sector on a long-term basis. In addition, 300 billion naira in airline and off-grid power funds have been set aside to assist SME clusters. The recent establishment of the NIRSAL Microfinance Bank for SMEs has been a significant boost to the country's SMEs' activities. On the other hand, these projects were marked by not paying back loans and not reaching their goals. This is because the government encouraged the policies through credit allocation, subsidies, and interest ceilings. These factors may have contributed to the deterioration of credit available to Nigerian SMEs. To mitigate the impact of the COVID-19 pandemic that afflicted the world in 2020 and thus caused global hardship on SMEs, the federal government, through the Central Bank of Nigeria (CBN), introduced a N50 billion Targeted Credit Facility (TCF) as a stimulus package to assist households and micro, small, and medium enterprises (MSMEs) affected by the coronavirus pandemic (Etale & Light, 2021).

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In Nigeria, the SMEs sector has consistently underperformed, undermining its contribution to economic growth and development. The main issues affecting the country's SMEs can be divided into four categories: an unfriendly business environment, inadequate funding, a lack of managerial skills, and a lack of access to modern technology (CBN, 2022). Among these, the lack of finance is at the top of the list. Commercial banks, which continue to be the most important source of funding for SMEs globally, have generally shied away due to perceived risks and uncertainties. In Nigeria, the fragile economic environment and lack of necessary infrastructure have made SME practices expensive and inefficient, reducing their credit competitiveness. The government can help SMEs by establishing the necessary enabling frameworks and easing the regulatory burden. Furthermore, they can simplify business registration procedures and paperwork to make them less expensive, simpler, and faster.

2.4 Ways Banks can Improve SME's Development

SMEs require greater access to financial services and investment capital. Large corporations have little difficulty securing sizeable bank loans and private investments. At the same time, microfinance, consisting of very small loans, tends to benefit individual entrepreneurs. SMEs fall in between and often struggle to obtain credit and loans (OECD 2015).

Majority of SMEs in Nigeria are obliged to source much of their financing from personal savings. Many financial institutions in the country are reluctant to fund SMEs because of perceived risk and high transaction costs. SMEs are considered high-risk, as their managers are perceived as lacking managerial expertise, credit history, and/or tangible assets to secure loans. Thus loans to SMEs, when they are able to obtain them, tend to carry higher interest rates and shorter pay-back times. However things may be changing. Many large banks are now partnering with development agencies and NGOs to serve the SME market. Banks can adapt the following steps to serve SME's better:

2.4.1 Small Business Needs

1. Most businesses require basic services such as a checking account, credit cards, payroll services, and loans; small and medium-sized enterprises (SMEs) are not exempt. Banks benefit from a streamlined and convenient process for offering these core banking services to prospective business customers. Banks can increase profits from business accounts by improving their processes for services such as loans and by providing all of the banking services that small businesses require. They will save the customer time if they do not have to go elsewhere. This will make both parties more interested in the relationship. High interest rates or a lengthy vetting process for loans and credit can deter small businesses. They may not want to deal with these administrative headaches on top of their daily operations responsibilities.
2. Commercial banks require business and financial plans, but many SMEs in desperate need of credit lack the resources to create these documents. Small and medium-sized enterprises (SMEs) use a single-entry accounting system, whereas banks expect something more complex. It is therefore critical to invest in financial literacy for SME entrepreneurs and managers. Short financial literacy courses for SME managers, as well as financial literacy programs in high schools and universities, would be ideal.
3. Banks should provide incentives such as cash bonuses for opening an account or form partnerships with SMEs to provide discounts on items that can benefit a business, such as insurance.
4. Banks should make it easier for SMEs to work with them by implementing various incentives, such as lower fees and better rates. Minimum balance fees and transaction limits will irritate many SME owners who feel they are wasting money in order to maintain an account or complete routine transactions.

2.4.2 Modernizing the SME lending business

1. Embracing digitalization through the introduction of online loan applications, an automated loan approval process, and the creation of an online platform will help banks accelerate the SME lending process. Furthermore, they should begin providing small businesses with personalized advice on banking products and services, as well as assistance in resolving various business issues. Building an online platform with self-service capabilities such as simplified online applications, document imaging, online creditworthiness assessment, and digital document interchanging throughout the lending cycle will make the loan disbursement process much simpler and faster (Choudhury, 2019).
2. Banks must segment small businesses based on the number of customers, business types and profiles, products, and credit history in order to maintain existing relationships with potential SME customers. Assessing all SME segments with equal effort and time may raise a red flag for banks before making a final lending decision.

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3. The loan application evaluation and review mechanisms should be automated, saving credit analysts' time, lowering the cost of the loan process, and streamlining the decision-making process. Banks will gain a competitive advantage in the fast-paced digital world by integrating automated underwriting platforms.
4. Banks should assist early-stage SMEs by providing value-added services, mentorship, guidance, and support systems. Small businesses require more than just funding; they also require business management tools and guidance on how to spend working capital wisely.
5. Small businesses frequently face multiple challenges at various stages of financial growth and, as a result, seek tailored solutions. For small businesses, remote virtual interaction with relationship managers at banks could be a huge relief (regardless of the geographical location). Banks can initiate such interactions using online tools, and SMEs can book appointments online as well. A wealth of unstructured data exists in SMEs' business bank accounts, which can be leveraged using advanced technologies such as artificial intelligence, data analytics, and big data tools to improve lending decisions and better assess borrowers' creditworthiness.

2.4.3 Improve credit assessment for SMEs.

Rating the creditworthiness of SMEs in the country is difficult. As a useful next step, the government should establish a domestic credit bureau for SMEs through a public-private partnership. This institution could eventually become its own company. A more effective commercial bank financing system for SMEs in Nigeria is preferable to a plethora of industrial policies for SMEs. There are no quick fixes when it comes to reforming commercial bank financing of SMEs; the process will take time and political will. However, this can be a good starting point.

2.5 Empirical review

Umar & Ndidi (2020) investigated the impact of bank lending on the growth of a sample of Nigerian small and medium-sized businesses. In the study, simple percentages and tables were used. According to the study, lending to SMEs encourages self-employment, lowering the rate of unemployment and crime in Nigeria; bank lending also has a positive influence on the level of economic activity and the growth of SMEs in the country; and commercial banks and the Central Bank of Nigeria should increase lending to small and medium-sized businesses in order to create more jobs, reduce crime and unemployment, and boost industry. John-Akamelu & Muogbo (2018) distributed a 109-questionnaire to bankers and SME owners in Anambra State. The purpose of this research is to assess the role of deposit money banks in financing SMEs in Nigeria. Through percentage analyses and the chi-square method, the study explicitly demonstrated that small and medium-sized businesses faced a number of challenges in obtaining loans from deposit money banks; it also revealed that deposit money banks have significantly contributed to the development of SMEs through their loans and advances. From 1986 to 2015, Ubesie, Onuaguluchi, & Mbah (2017) investigated the effectiveness of banks' lending to small and medium-sized businesses in Nigeria. According to the ordinary least squares regression, "credit to small and medium-sized enterprises has no significant effect on deposit money banks' credit to the private sector, which has a significant effect on small and medium-scale enterprise growth in Nigeria," and bank interest rates have a serious and significant effect on small and medium-scale enterprise growth in Nigeria. According to the findings of the study, deposit money bank management should prioritize economic development by increasing credit to the private sector, which is led by small and medium-sized businesses.

Okafor, Ugochukwu, & Chijindu (2016) looked at how small and medium-sized businesses affect Nigeria's economic growth by using SME loans, oil revenue, and inflation rate indicators (SMEs). The study discovered that small and medium-sized businesses, when combined with oil revenue and an inflation rate, have a significant impact on economic growth in the short run. It used OLS, ADF, and ECM to examine the period from 1986 to 2014. However, in the long run, the opposite is true. Basse et al. (2014) used time series data from the Central Bank of Nigeria from 1992 to 2011 to examine the impact of bank lending and macroeconomic policy on the growth of small-scale enterprises in Nigeria. The data was analyzed using the ordinary least squares (OLS) regression technique. The findings also revealed that commercial bank credit finance and industrial capacity utilization had a significant positive impact on the growth of small-scale enterprises. In their study, Ayuba, B., & Zubairu, M. (2015) investigated the impact of banking sector credit on the growth of small and medium enterprises in Nigeria. Using annual data from 1985 to 2010, which was analyzed using a correlation matrix and error correction model to test the hypotheses, it was found that banking sector credit has a significant impact on the growth of small and medium enterprises in Nigeria, as it has a positive impact on some major macroeconomic growth variables such as inflation, exchange rate, trade debts, and so on. The study suggested that the country's financial lending institutions (Monetary Authorities) loosen the strict rules on credit facilities for small and medium-sized enterprises (SMEs) in order to make it easier for SMEs to get loans, which will help them get money and do well.

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Afolabi (2013) investigated the impact of financing for small and medium-sized enterprises (SMEs) on growth in Nigeria. The study identified the issue as well as the existence of a few quantitative empirical studies on the subject, and it investigated the impact of SME financing on Nigerian economic growth from 1980 to 2010. The study used the ordinary least squares (OLS) method to estimate the multiple regression model. According to the estimated model results, SMEs' output, as measured by wholesale and retail trade output as a component of GDP, commercial banks' credit to SMEs, and the naira's exchange rate relative to the US dollar, all have a positive influence on economic development and real GDP, whereas the lending rate has a negative influence on economic growth. In terms of partial significance and using the t-statistic as a test of evaluation, SMEs' output and commercial banks' credit to SMEs were found to be significant factors enhancing economic growth in Nigeria at the 5% critical level. Bello & Mohammed (2015) investigated the impact of banking sector credit on the growth of Nigerian SMEs. The primary goal of the study was to determine whether banking sector credit has a significant impact on the growth of Nigerian small and medium enterprises. The study collected and used annual data from 1985 to 2010, and descriptive statistics, a correlation matrix, and an error correction model were used to test the hypotheses, which show that banking sector credit has a significant impact on the growth of small and medium enterprises in Nigeria, as well as a positive impact on some major macroeconomic growth variables like inflation, the exchange rate, and trade debts. From 1970 to 2012, Ilegbinosa & Jumbo (2015) conducted an empirical study of small and medium-sized enterprises and Nigerian economic growth. For primary data, the study polled 84 SMEs and used statistical records from 1975 to 2012 for secondary data. This study's data was estimated using the ordinary least squares, co-integration, and error correction models. GDP is the dependent variable, and the independent variables are the finance available to small and medium-sized businesses, the interest rate, and the inflation rate. The results showed that financing for small and medium-sized businesses (SME) was good for economic growth, while interest rates and inflation rates were bad and good for growth, respectively.

3 DATA AND METHODOLOGY

In this study, the data for the variables of SME growth (SMEG), bank loan to SMEs (CBLsME), exchange rate (EXCR), and inflation (INF) will be used. The data for the respective variables was obtained from the world development indicators (World Bank, 2021) and central bank of Nigeria (statistical bulletin, 2021) over the period of 1992 until 2021. Firstly, unit root tests are carried out to determine the stationary of the data. Next, lag order selection based on the unrestricted Vector Autoregressive (VAR) model is performed. The integration test and lag selection test is conducted since it is pre-requisite in Granger Causal test. Finally, the Pair Wise Granger Causality test proposed by Granger (1969), is conducted to determine the granger causal relationship between the variables which may cause one-way or two-way interaction or no interaction.

3.1 Description of data

Every variable have 29 sample sizes. In order to analyze them, we plot the figure 1 contain the four linear graph of four variables.

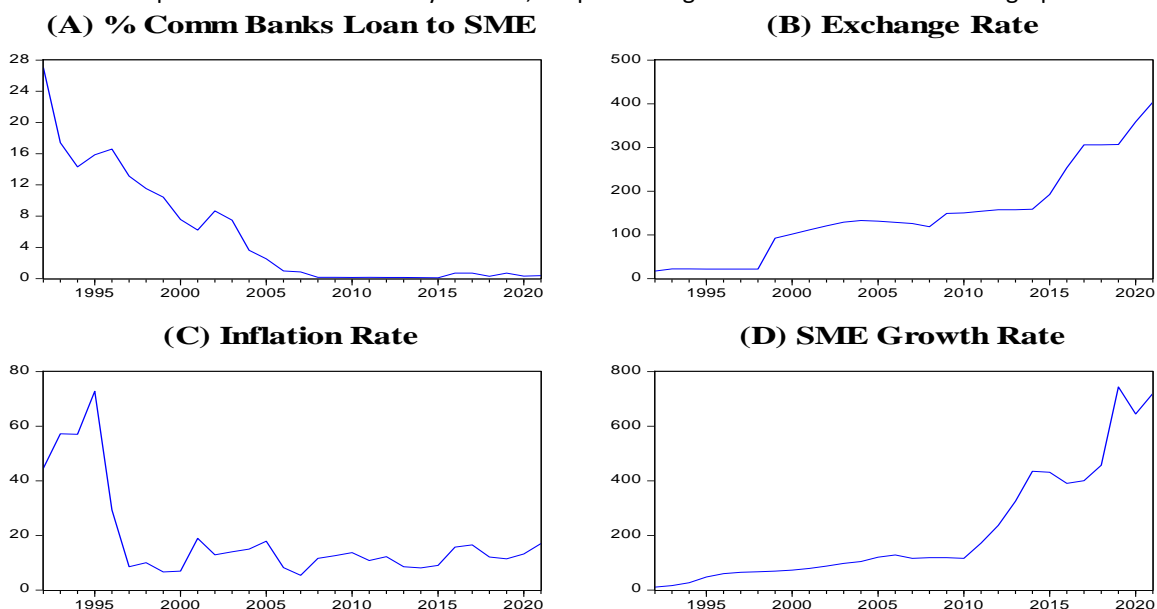


Figure 2: Yearly Data From 1992-2021

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From the graph (A) of the figure 2, we can see that the percentage of commercial bank loan to SME's has a declining growth between 1992 and 2017. It became steady and slightly increased from 2018. From the graph (b) of the figure 1, we can see that the Nigeria exchange rate increased from 17.3 LCU per US dollars in 1992 to 403.58 LCU per US dollars in 2021 growing at an average annual rate of 17.6%. The inflation rate in Nigeria moved over the past 29 years between 29.3% and 28.8%. For 2021, an inflation rate of 17.0% was calculated. During the observation period from 1992 to 2021, the average inflation rate was 19.2% per year. SME's had an increasing growth except staying more or less constant, except a slight decrease in 2014, 2015 and 2019 as shown in (d).

The variables used in the study are similar and also in percentage. There will be no need to transform the data to log because the coefficient will give us elasticity interpretation (percentage change of percentage).

3.2 Unit Root Tests

To validate the technique used in this study, it became necessary to test for the order of cointegration to ensure that there are no $I(2)$ cointegrating equations in the series. A prerequisite for performing the Granger Causality test is that the data need to be stationary i.e. it should have a constant mean, constant variance, and no seasonal component. Transform the non-stationary data to stationary data by differencing it, either first-order or second-order differencing (Padav, 2021). As a result, a unit root test would help eliminate the possibility of autocorrelation and also skew the test. Table 1 summarizes the results of the ADF tests at level, constant and trend, none, and first difference.

Table 2: Unit Root Tests Result

Variables	ADF Test Statistic				PP Test Statistic			
	Constant	Constant & Trend	None	First Difference	Constant	Constant & Trend	None	First Difference
SMEG	1.71	-1.50	2.05	-0.93	2.74	-0.75	4.36	-5.88*
CBL SME	-4.53*	-3.66*	-5.44*	-6.68*	-4.97*	-3.53*	-6.25*	-6.68*
EXCR	1.76	-0.30	3.85	-3.56*	1.99	-0.46	4.26	-3.45*
INF	-2.13	-2.01	1.79	-5.52*	-1.90	-1.61	-1.82	-5.17*

Source: Researcher's calculations from Eviews 12, 2023.

Notes (ADF): Test critical values at 5% (At level: constant = -2.94, Constant and trend = -3.53, none = -2.63 while at First difference = -2.95); P-value= Probability value, * signifies stationarity.

Notes (PP): Test critical values at 5% (At level: constant = -2.94, Constant and trend = -3.53, none = -2.63 while at First difference = -2.94); P-value= Probability value, * signifies stationarity.

The advantage of the PP test over the ADF test is that the test corrects any heteroscedasticity and serial correlation in the errors terms (u_t). Also, PP tests do not require lag selection and are based on a serially correlated regression error term. Similar to the ADF test, the null for PP is also based on the null that the series are non-stationary. The results of the PP test are indicated in Table 2 above. The results indicate that the series are non-stationary at level but stationary at first difference except commercial bank loan to SME's.

Optimal Lag order Check

The optimum lag length (k) must be determined using appropriate model order selection criteria such as the Akaike Information Criterion (AIC), Schwarz Information Criterion (SIC), or Hannan-Quinn Criterion (HQC). The appropriate lag length for each variable is shown in table 3 below:

Table 3: VAR Lag Order Selection Criteria

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-165.2078	NA	10408.31	12.08627	12.27658	12.14445
1	-155.0184	16.73962*	5409.336*	11.42989*	11.66778*	11.50261*
2	-154.7968	0.348353	5735.052	11.48548	11.77095	11.57275

* indicates lag order selected by the criterion

Source: Researcher's calculations from Eviews 12, 2023.

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According to the table, lag 1 has the lowest AIC value, which is also less than the SIC value at lag 1. As a result, the model (Lag 1) is chosen to estimate Equation (1). Table 4 illustrated the Pair-Wise Granger Causality test result.

Table 4. Pair-Wise Granger Causality Test Result

Null Hypothesis:	Obs	F-Statistic	Prob.
CBLSME does not Granger Cause SMEG SMEG does not Granger Cause CBLSME	29	0.59131 0.28625	0.4488 0.5972
INF does not Granger Cause SMEG SMEG does not Granger Cause INF	29	0.00220 0.00453	0.9630 0.9468
EXCR does not Granger Cause SMEG SMEG does not Granger Cause EXCR	29	5.16705 12.4761	0.0315 0.0016
INF does not Granger Cause CBLSME CBLSME does not Granger Cause INF	29	8.04043 1.11828	0.0087 0.3000
EXCR does not Granger Cause CBLSME CBLSME does not Granger Cause EXCR	29	1.58138 0.10062	0.2197 0.7536
EXCR does not Granger Cause INF INF does not Granger Cause EXCR	29	0.00695 0.38452	0.9342 0.5406

The above result showed that the p-value of the F-statistic (0.4488) is greater than 5 per cent significance level. Therefore, the null hypothesis of CBLSME does not Granger cause SMEG is not rejected. Also, the p-value for the null hypothesis of SMEG does not Granger Cause CBLSME is 0.5972 which is still above 0.05. As a result, the null hypothesis is accepted at 5 per cent significance level. Thus, it can be concluded that there is no causality that runs from CBLSME to SMEG. The p-value for the null hypothesis of INF does not Granger Cause SMEG is 0.9630 which is greater than 0.05. This means the null hypothesis is not rejected at 5 per cent significance level. Also, the p-value for the null hypothesis of SMEG does not Granger Cause INF is 0.9468 which is still above 0.05. As a result, the null hypothesis is accepted at 5 per cent significance level. Thus, it can be concluded that there is no causality that runs from INF to SMEG. The p-value for the null hypothesis EXCR does not Granger Cause SMEG is 0.0315 is less than 0.05. Hence, the null hypothesis is rejected at 5 per cent significance level. Also, the p-value for the null hypothesis of SMEG does not Granger Cause INF is 0.0016 which is still below 0.05. As a result, the null hypothesis is not accepted at 5 per cent significance level. Thus, it can be concluded that there is causality that runs from EXCR to SMEG.

CONCLUSION

In Nigeria, according to the findings, the Pairwise Granger Causality Test did not show any link between bank loans and SMEs. This suggests that the current bank lending practices have not significantly boosted the growth of SMEs in the country. Moreover, there was no causal relationship between inflation and SME expansion, indicating that inflation does not directly impact the development of SMEs. However, we discovered a two-way causal relationship between the exchange rate and SMEs, suggesting that changes in the exchange rate can affect SME performance, and vice versa.

These results suggest that the current lending practices of commercial banks and exchange rates do not effectively support the progress of SMEs in Nigeria. The insufficient number of loans given to SMEs could be an issue, as it may not be substantial enough to make a difference. Additionally, the absence of a link between CBLSME and inflation implies that neither bank loans nor inflation significantly influence long-term SME development.

Research by Umar & Ndidi (2020), Afolabi (2013), and Bassey et al. (2014) indicates an impact of bank lending on economic activity and SME growth in Nigeria, which contrasts with this outcome. These contrasting findings may underscore the necessity of a reevaluation of existing lending policies and procedures.

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Based on these findings, the study suggests that it would be beneficial for the government to work together with banks to boost the amount of loans provided to small and medium-scale enterprises (SMEs). This collaborative effort could strengthen assistance to SMEs, ultimately resulting in a more substantial influence on their development and their role in bolstering the Nigerian economy.

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