

Effect of Microfinance Banks on Small Businesses Growth in Nigeria

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Abstract : Small businesses in Nigeria confront a significant challenge in accessing necessary funds, hindering their potential for growth and development. Recognizing this hurdle, the financing of small businesses by Microfinance Banks has emerged as a pivotal component of the government's economic policies. These institutions focus on deposit mobilization within their areas of operation, extending microcredits or overdrafts to customers who lack access to conventional banking services. Small Business Growth is the dependent variable, while microfinance deposits, microfinance institution size, and microfinance loans constitute the independent variables. Utilizing monthly secondary time series data from the Central Bank of Nigeria's Statistical Bulletin spanning from 2006 - 2021, the study employed the Autoregressive Distributed Lags (ARDL) Technique. The Unit Root test indicated the suitability of employing the ARDL estimation technique given the stationarity nature of the variables. Findings revealed a significant but negative impact of microfinance banks on the short-term expansion of small businesses, yet a positive and noticeable effect over the long term. Furthermore, the study indicated that the size of microfinance institutions holds minimal influence on the long-term success of small businesses. Interestingly, microfinance loans exhibited a negative and significant effect on short-term growth but demonstrated a positive and significant impact in the long term. Based on the outcomes, policymakers and microfinance institutions should focus on effective deposit mobilization and establish sustainable long-term financing models for small businesses. Prioritizing microfinance service quality over institution size is advised. Government policies should encourage high-quality financial services, emphasizing timely and affordable credit, savings, insurance, and other relevant products. Finally, fostering responsible lending practices is crucial, requiring robust screening, monitoring mechanisms, suitable interest rates, repayment terms, and financial education for borrowers to ensure effective utilization of loans without burdening small businesses.

Keywords: ARDL, Finance growth theory, Microfinance loans, Institutional size, Small business growth.

Introduction

Microfinance banks provide crucial financial services to low-income, unbanked, and underserved populations. They differ from commercial banks in their clients and financing

options. While both microfinance and commercial banks contribute to economic development by providing funds for investment activities, commercial banks typically cater to larger businesses and organizations. In contrast, microfinance banks focus on individuals and small businesses, making them a vital resource for grassroots economic growth.

Microfinance banks, a unique addition to Nigeria's financial landscape since their introduction in 2005 by the visionary former Central Bank of Nigeria governor, Dr Chales Chukwuma Soludo, have been a beacon of hope in the battle against poverty. In his book "Banker to the Poor: Micro-lending and the Battle Against World Poverty," Muhammad Yunus (2007) emphasizes the transformative impact of microcredit. He highlights its role in empowering individuals and communities by granting access to financial services, particularly for small-scale entrepreneurs, including women, previously marginalized by the formal banking system. These banks, through their lending to individuals, are not just providing financial services but are actively promoting the growth of small and medium-scale businesses, thereby transforming the economic landscape of Nigeria.

Small and medium-sized enterprises (SMEs) play a critical role in propelling Nigeria's economic advancement, serving as its cornerstone. They are instrumental in job creation, facilitating industrialization and rural growth, harnessing local resources, and fostering equitable income distribution. Recognized by the Central Bank of Nigeria as pivotal for economic progress, SMEs contribute significantly to employment generation, local technological innovation, output diversification, indigenous entrepreneurship, and integration with larger industries. Therefore, backing SMEs is not merely a choice but a necessity for Nigeria's economic prosperity and progress. The imperative and significance of supporting SMEs cannot be overstated in Nigeria's journey toward economic development.

Loans made by microfinance banks are critical for small business growth. It provides entrepreneurs the capital they need to invest in their businesses, covering equipment, inventory, and marketing expenses. This financial assistance can help businesses grow, expand their market reach, and contribute to economic growth. Furthermore, it enables small businesses to establish creditworthiness for future financing. Small businesses in Nigeria play a crucial role in the economy; they contribute to growth, employment, and innovation. Small businesses face problems in the country, such as Inadequate access to finance, poor infrastructure, Inconsistent government policies, and limited market opportunities. In Nigeria, the most significant problem small businesses face is inadequate access to finance. Microfinance banks were created to eradicate the problem of Inadequate access to finance. Also, Loans from microfinance banks help small businesses purchase equipment, renovate facilities, finance receivables, and fund business facility acquisition. Microfinance banks play a vital role in the growth of small businesses. To low-income

individuals, micro-entrepreneurs, and small enterprises, they provide financial services such micro-insurance, loans, and savings.

Although microfinance banks (MFBs) are widely available in Nigeria, little is known about how these institutions affect the growth and viability of small businesses in the country. Although microfinance aims to provide financial services to the underbanked and unbanked, there are still concerns about how well MFBs support small business growth, increase credit availability, and improve the economy. Therefore, the study would seek to examine the roles and extent to which microfinance loans affect the growth of small businesses in Nigeria.

Empirical Literature

Abdulrazaq & Kayode (2022) investigated the influence of microfinance banks' services on the operational outcomes of small and medium-scale enterprises (SMEs) in Nigeria. The research utilized secondary data extracted from the Central Bank of Nigeria statistical bulletin spanning the period from 1991 to 2020. Analysis of the data was conducted using an autoregressive distributed lags model. The findings of the study indicated a significant positive correlation between the loans and advances provided by microfinance banks and the performance of SMEs in Nigeria, at a significance level of 5%. Additionally, the study found that the mobilization of deposits by microfinance banks also had a significant impact on the performance of SMEs in Nigeria. Lastly, the research revealed a negative relationship between lending rates charged by banks and the performance of SMEs in Nigeria, with a coefficient value of 1.601 and a significance level of 5%. Consequently, the study recommended the provision of finances with relatively lower interest rates to small and medium enterprises in Nigeria to bolster economic growth. Babarinde, Abdulmajeed, and Angyu (2021) in their work, explored the impact of microfinance banks on Nigeria's economic growth from 1992 to 2019. Analysis in this study makes use of the Autoregressive Distributed Lag (ARDL) model and the Granger causality test. The empirical results of this study show that loans and deposits from microfinance banks have long-run positive and significant effects on economic growth in Nigeria, while the investments from these same banks have no such effect. Loans, investments, and deposits from microfinance institutions do not significantly affect Nigeria's economic growth in the short term. In addition, the study provides further evidence that microfinance loans and government spending both contribute to economic growth. In a similar vein, it can be shown that the inflation rate in Nigeria directly correlates to the country's GDP growth. Microfinance deposits were found to have a positive effect on economic growth, while microfinance investments were found to have a positive effect on economic growth in both directions. So, it's safe to say that microfinance institutions in Nigeria contribute to the country's expanding economy.

Akinadewo (2020) investigated the correlation between microfinance banks and the expansion of micro, small, and medium-sized enterprises (MSMEs) in Nigeria. Employing a self-administered questionnaire research design, the study targeted a population of 250 individuals, from which 223 valid responses were obtained. Logit regression analysis was utilized to assess two hypotheses. The research findings unveiled a significant positive association between microfinance banks, as gauged by Small Scale Financial Services (SSFS), Financial Sustainability (FST), Absence of Assets-based Collateral (AAC), and Advisory Services (ADS), and the advancement of MSMEs in Nigeria. This underscores the notion that enhancements in the services rendered by microfinance banks will yield favorable outcomes for MSMEs. As a result, the report advocates for the establishment of a robust and more effective collaborative effort involving all stakeholders, ensuring that microfinance banks remain committed to their primary mandate of offering financial support to MSMEs, among other recommendations. Khan (2020) distributed a questionnaire to 50 respondents, 41 of whom correctly filled out and returned it. To evaluate the hypotheses, the study analyzed data using the chi-squared technique. The research revealed that severe borrowing requirements undermine entrepreneurs' efforts to patronize banks.

Onyeiwu (2020) conducted a study to assess the influence of microfinance bank credit and its debt servicing on the profitability of small and medium-sized enterprises (SMEs) in Alimosho Local Government Area, Lagos State, Nigeria. A survey involving 387 SMEs in Alimosho LGA was undertaken, with data collected through a well-structured questionnaire to address the research hypotheses raised. The results from simple linear regression analyses indicate a significant negative impact of microfinance bank loans and debt servicing on the profitability of the selected SMEs in the Alimosho local government area of Lagos state. Based on these findings, several policy recommendations are proposed: Microfinance Banks (MFBs) should revise their lending terms, including extending the duration of loans, to facilitate easier repayment by SMEs. MFBs should adopt more flexible requirements tailored to the needs of small-scale and medium enterprises, particularly concerning documentation and other specialized services, to foster growth among SMEs. MFBs should address the issue of post-verification by establishing a digital platform for monitoring the progress of projects and businesses for which loans are granted, thus ensuring effective monitoring at reduced costs.

Aladejebi's (2019) study examines how microfinance institutions affect growing small and medium-sized enterprises in the Lagos metropolitan area. Data for this study was collected using questionnaires from Lagos-based small business owners who held accounts with microfinance institutions. Out of the 209 distributed questionnaires, 205 were found to be suitable for SPSS analysis. The questionnaire was divided into two pieces. Section 1 of the

document contained general information, while Section 2 asked questions regarding the effects of micro savings, microcredit, and training on the financial performance of SMEs and the financial performance of the entire document. The findings demonstrated that savings among SMEs are encouraging because interest rates are higher than deposit rates. However, Bakare (2019) explored the relationship between microfinance lending and small and medium business growth in Nigeria between 2006 and 2014. The findings of panel data analysis found that bank credit had a negative and statistically insignificant link with business growth in Nigeria.

Akingunola et al. (2018) researched microfinance banks' impact on micro and small businesses in Ogun State, Nigeria. The survey design method was utilized to administer 408 questionnaires to microenterprises. The data demonstrated a negative relationship between intermediate financial services and small enterprises. The findings also revealed a strong correlation between microcredit and business expansion. Furthermore, Ofeimum, Nwakoby & Izekor (2018) collaborated to investigate the significance of micro-financing for small businesses in Nigeria. They employed the ordinary least squares method as their chosen data analytical approach, utilizing time series data sourced from Nigerian-based Microfinance Banks (MFBs) and the Central Bank of Nigeria. The findings of their study reveal several key insights: There exists a negative correlation between inflation and the growth of small businesses. The micro-lending rate exhibits an insignificant and adversarial relationship with small business growth. The sectoral distribution of microloans significantly impacts the growth of small businesses in Nigeria. The gestation period of microloans shows no significant relationship with the growth of small businesses during the period under review.

Materials and Methods

The study will rely solely on secondary data, which includes analyzing existing data from CBN statistical bulletin on Nigeria. The data will be examined on a monthly basis from 2006 to 2022 to gain a more in-depth and specific understanding of the short-term variations and changes in growth that may not be as evident with quarterly or annual data on the growth of microfinance banks and SMEs. This approach enables a more accurate examination of patterns and trends in the data, as well as a more precise assessment of the performance of microfinance banks and SMEs during different times of the year, which can aid in identifying opportunities for growth and areas for improvement for both microfinance banks and SMEs.

Also, the study utilizes econometric models such as the Autoregressive Distributed Lag Model to analyze the data. The model of Otekunrin, Kenechukwu, Eluyela, and Ibrahim

(2022) was modified and used for the analysis. In mathematical form this functional relationship becomes: -

$$Y_t = \beta_0 + \beta_1 Y_{t-1} + \beta_2 Y_{t-2} + \dots + \beta_p Y_{t-p} + \delta_1 X_{1t} + \delta_2 X_{2t} + \dots + \delta_k X_{kt} + \varepsilon_t \quad (1)$$

where Y_t is the dependent variable at time t , Y_{t-1} , Y_{t-2} , ..., Y_{t-p} are the lags of the dependent variable, X_{1t} , X_{2t} , ..., X_{kt} are the k independent variables at time t , β_0 is the intercept, β_1 , β_2 , ..., β_p are the coefficients of the lags of the dependent variable, δ_1 , δ_2 , ..., δ_k are the coefficients of the independent variables, and ε_t is the error term.

The functional relationship for the variables specified for this study becomes:

$$SBG = \beta_0 + \beta_1 MD_t + \beta_2 MS_t + \beta_3 ML_t + \mu_t \quad (2)$$

Where:

SBG: Small Business Growth (measured by Annual Aggregate Capitalization of Small and Medium Enterprise)

MD: Microfinance Deposit (Full microfinance money deposited in a microfinance)

MS: Microfinance Size (measuring by total asset of microfinance bank)

ML: Microfinance Loan (This is the cumulative amount of credit provided to customers for a set period).

β_0 , β_1 , β_2 , β_3 , are the regression coefficients to be estimated,
 μ is the error term, $t=$ is a time series

In ARDL form, the model could be specified as follows:

$$\Delta SBG_t = \delta_{0i} + \sum_{i=1}^k \alpha_1 \Delta SBG_{t-1} + \sum_{i=1}^k \alpha_2 \Delta MD_{t-1} + \sum_{i=1}^k \alpha_3 \Delta MS_{t-1} + \sum_{i=1}^k \alpha_4 \Delta ML_{t-1} + \delta_1 \Delta SI_{t-1} + \delta_2 \Delta MD_{t-1} + \delta_3 \Delta MS_{t-1} + \delta_4 \Delta ML_{t-1} \varepsilon_t \quad 3.3$$

The ARDL model can be used to estimate both the long-run and short-run effects of the independent variables on the dependent variable. The long-run effect is captured by the coefficients of the independent variables (δ_1 , δ_2 , ..., δ_k), while the short-run effect is captured by the coefficients of the lags of the dependent variable (β_1 , β_2 , ..., β_p).

To conduct a diagnostic test prior to the estimation of the model in order to examine the time series properties of the series, two standard unit root test procedures are utilized. The ADF and PP tests. This is done to circumvent or avoid the problem of spurious results typical of non-stationary time series models.

Unit root test can be represented by the following equation:

$$y(t) = \alpha + \rho y(t-1) + \varepsilon(t) \quad (4)$$

where:

$y(t)$ is the time series variable

α is the constant term

ρ is the autoregressive parameter

$\varepsilon(t)$ is the error term

Cointegration is a statistical property that can be applied to two or more-time series variables. It indicates that the variables have a relationship that has persisted over time and that the linear combination of the variables is stationary. In other words, the cointegration test is utilized to determine whether or not two or more non-stationary time series have a relationship that is in a state of long-term equilibrium. Co-integration estimation can be represented by the following equation:

$$y(t) = \alpha + \beta_1 y(t-1) + \dots + \beta_p y(t-p) + \varepsilon(t) \quad (5)$$

where:

$y(t)$ is the vector of non-stationary time series variables

$\alpha, \beta_1, \dots, \beta_p$ are parameters to be estimated

$\varepsilon(t)$ is the error term

This equation shows the long-term equilibrium relationship between variables using lagged values ($\beta_1 y(t-1), \dots, \beta_p y(t-p)$). Any deviation from long-term equilibrium is captured by the error term t .

Vector Error Correction Modeling (VECM) is a statistical technique used to identify and understand the long-term connections among multiple non-stationary time series data. The VECM approach is based on the idea of cointegration, which refers to the existence of a long-term equilibrium relationship among the variables. VECM is an expansion of the Vector Autoregression (VAR) model, which is used to analyze the short-term dynamics among multiple time series variables. Therefore, if the variables are cointegrated, VECM can be used to analyze both short-term dynamics and long-term relationships among the variables. However, if there is no cointegration, then the VECM reduces to Vector Autoregressive (VAR) model will be used to determine causal links between variables."

The Vector Error Correction Model (VECM) can be represented by the following equation:

$$\Delta y(t) = \alpha + \beta_1 \Delta y(t-1) + \dots + \beta_p \Delta y(t-p) + \gamma_1 y(t-1) + \dots + \gamma_p y(t-p) + \varepsilon(t) \quad (6)$$

where:

$\Delta y(t)$ is the first difference of the vector of variables $y(t)$

$\alpha, \beta_1, \dots, \beta_p, \gamma_1, \dots, \gamma_p$ are parameters to be estimated

$\varepsilon(t)$ is the error term

The lagged values of the first differences of the variables ($\Delta y(t-1), \dots, \Delta y(t-p)$) capture the short-term dynamics, whereas the lagged values of the variables ($y(t-1), \dots, y(t-p)$) capture the long-term relationships among the variables. The error term (t) represents any deviation from the relationship of long-term equilibrium.

The use of Autoregressive Distributed Lag (ARDL) Model in the study is justified by its ability to analyze the dynamic interdependence among multiple time series variables. This makes it an appropriate method for studying the relationships among different economic variables, such as the growth of microfinance banks and SMEs.

The model that has been discussed has been designed using information and insights from two sources: Financial Growth Theory, as proposed by Berger and Udell in 1998, and a more recent study by Otekunrin, et al in (2022). This model is based on the idea that there is a connection between the growth of microfinance banks and the growth of small businesses. Therefore, it is expected that the model will show a positive and significant relationship between the endogenous variable (the variable being studied) and the other variables (the regressors) in the model.

Results and Discussion

Table 1 Descriptive Statistics

	LNMD	LNML	LNMS	LNSBG
Mean	11.88017	12.75370	12.77708	12.17467
Median	12.14488	12.81891	12.84443	12.18316
Maximum	12.66754	12.88799	12.91359	14.28332
Minimum	10.46597	12.44458	12.46686	11.05445
Std. Dev.	0.600610	0.109205	0.112553	0.910013
Skewness	-0.637492	-0.474315	-0.461881	0.541685
Kurtosis	2.283220	1.777456	1.711300	2.379035
Jarque-Bera	16.13431	18.05862	18.96038	11.75963
Probability	0.000314	0.000120	0.000076	0.002795
Sum	2150.311	2308.420	2312.652	2203.615
Sum Sq. Dev.	64.93185	2.146651	2.280283	149.0623
Observations	181	181	181	181

Source: Authors' computation using Eview 10 version (2023)

Table 1 presented the statistical characteristics of selected variables used in the study, including small business growth (LNSBG), microfinance deposit (LNMD), microfinance loan (LNML), and microfinance size (LNMS). Other variables presented in the table included microfinance loan (LNML), which measured the amount of money lent by microfinance institutions. The years 2006 through 2021 are covered by the data. The mean value of growth in small businesses is estimated to be N12.17467 million. It can be deduced from this that, over the course of the period in question, small businesses saw an increase in revenue of N12.17467 million on average. There is a standard deviation of 0.910013 for the growth of small businesses. The dispersion or variability of the growth values is what this

statistic attempts to measure in relation to the mean. A standard deviation of 0.910013 indicates that, on average, the growth values tend to deviate from the mean by approximately 0.910013 units. This can be inferred from the fact that the value of the standard deviation is 0.910013. It offers an indication of the range of the growth observations, also known as their volatility. The absolute minimum value that can be recorded for the expansion of small businesses is 11.05445 million. This is the lowest level of growth that has been seen in the data over the course of the time period that was specified. It reveals that the number of small businesses in existence reached 11.05445 million at its lowest point. The highest possible value that was recorded for the expansion of small businesses was 14.28332 million. This represents the highest level of growth that was seen in the data over the course of the time period that was specified. It reveals that the number of small businesses in existence reached 14.28332 million at its peak.

Microfinance deposits average out to N11.88017 million. Over the course of the study period, microfinance institutions accepted deposits totaling N11.88017 million, on average. Microfinance deposits have a standard deviation of \$600,010. The spread of the deposit values around the mean is quantified by this statistic. Deposit values, on average, fluctuate by about 0.600610 million units, as indicated by the standard deviation of 0.600610. It shows how widely separated the deposit observations tend to be. Microfinance Deposit has a lowest value of \$10,465,970,000. This is the smallest amount of deposits recorded during that time frame. Microfinance Deposits have a maximum value of \$12,667,544,000. For the time period under consideration, this is the greatest amount of deposits ever recorded.

The average amount of a microfinance loan comes to N12.75370 million dollars. Thus over the course of the aforementioned time period, microfinance institutions extended loans totaling an average of N12.75370 million. The microfinance loan statistic has a standard deviation of 0.109205 million dollars. This statistic determines the spread, or variability, of the loan values in relation to the mean value. A value of 0.109205 for the standard deviation indicates that the loan values, on average, have a tendency to deviate from the mean by approximately 0.109205 million units. It offers a hint as to the range or the volatility of the loan observations. The lowest amount of money that has ever been documented for a microfinance loan is 12.44458 million. This is the lowest level of loans that has been seen in the data over the course of the time period that was specified. The highest amount that has ever been recorded for a Microfinance Loan is 12.88799 million. This constitutes the highest total number of loans that was seen in the data over the course of the specified time period.

A microfinance institution's size is typically around N12.77708 billion. During the given time period, microfinance institutions' average total assets were N12.77708 billion. If the total asset values on average deviate from the mean by 0.112553 billion units, then the

standard deviation is 0.12553. It shows how widely the microfinance bank's total assets fluctuate in value. Microfinance Size is at least 12.46686 billion dollars. For microfinance institutions, this is the lowest total assets seen in the data over the time range I have chosen. Microfinance Size has a maximum value of \$12,91359,000,000. During that time frame, thus microfinance institution had the highest total assets of any that were tracked by the data.

The Jarque-Bera statistic examines the validity of the normal distribution hypothesis by determining whether or not the variable follows a normal distribution. A larger value for the Jarque-Bera statistic indicates a more significant departure from the norm. In this particular instance, the Jarque-Bera statistics for all of the variables are fairly high. The statistical significance of the Jarque-Bera test is represented by the probabilities that are associated with it. A low probability value, which is typically less than 0.05, indicates that the null hypothesis of normality is rejected, which suggests that the distribution of the variable is not normal. This is because a low probability value indicates that the variable does not follow the normal distribution. Because the probabilities are so low (less than 0.05), all of the variables (LNMD, LNML, LNMS, and LNSBG) display a departure from the assumption of normality. This is the case because the probabilities are less than 0.05. This hints that the distributions of these variables are significantly different from a normal distribution in some significant way.

Stationarity Test Results

A test is conducted to determine whether or not the variables are stationary. Before standard econometric techniques can be applied, economic theory stipulates that the variables must be in a stationary state. This is performed to prevent misleading results. A maximum of one lag and the intercept are utilized in the test to determine whether or not the data is stationary. The results of the test to determine stationarity are provided below.

Table 2 Unit Root Test

VARIABLES	ADF-STATISTICS	ORDER OF INTEGRATION
SBG	-3.571121 (0.0073)	Level
MD	-6.525034 (0.0012)	First difference
MS	-2.940316 (0.0429)	First difference
ML	-2.947159 (0.0422)	First difference

Source: Author's Computation 2023 using E-view 10. Figures in parentheses are probability values

In order to investigate the order of integration among the variables such as SBG, MD, MS and ML, the study used the Augmented Dickey Fuller (ADF) test. As stated in the methodology, the tools of unit root tests (ADF) is tested for all the variables by taking null hypothesis as presence of unit root ‘(i.e. presence of non-stationarity) against the alternative hypothesis series which is stationary.’ If the absolute computed value exceeds the absolute critical value, then we reject the null hypothesis and conclude that the series is stationary and vice-versa. It is clear from Table 4.2 that the null hypotheses of unit roots for all the time series are rejected at level and their first differences since the ADF test statistic values are greater than the critical values at 5 percent levels of significances. Thus, these variables are stationary and integrated of different order, i.e., $I(0)$ and $I(1)$. Thus, it is clear that MD, MS and ML have unit root in their level form but at first difference the variables became stationary; while SBG was stationary at level.

Cointegration Test

Given that the variables in question have a mixed order of integration, the next step is to apply a cointegration bound test in order to determine whether or not the variables exhibit long-term relationships. The result of Bound test is presented in Table 3.

Table 3: Cointegration Bound Test Results

F-Bounds Test	Null Hypothesis: No levels relationship			
Test Statistic	Value	Significance	$I(0)$	$I(1)$
			Asymptotic: n=1000	
F-statistic	4.365059			
K	3	10%	2.37	3.2
		5%	2.79	3.67
		2.5%	3.15	4.08
		1%	3.65	4.66
			Finite Sample: n=80	
Actual Sample Size: 178				
		10%	2.474	3.312
		5%	2.92	3.838
		1%	3.908	5.044

Source: Author’s Computation 2023 using E-view 10.

The outcomes of a Cointegration Bound Test to determine whether or not a levels relationship exists between the variables are presented in the table that has been provided here. The experiment is carried out with the assistance of both asymptotic and finite

sample statistics. The table presents critical values at varying levels of significance for both asymptotic ($n=1000$) and finite sample ($n=80$) circumstances. In the asymptotic case, we have: The F-statistic of (4.365059) is greater than the critical values at 10%, (2.37); 5% (2.79); and 1% (3.65). When the test statistic is compared with the critical values at the desired level of significance, it is possible to determine whether or not to reject the null hypothesis of no levels relationship. At this point, the study rejects the null hypothesis of no long run relationship. Given this, the study proceeds to estimating the short run and the long run.

ARDL Error Correction Regression

According to the findings shown in Table 4, the variables $D(LNSBG(-1))$, $D(LNMD)$, $D(LNML)$, $D(LNML(-1))$, $D(LNMS)$, and $D(LNMS(-1))$ all have coefficients that are statistically significant at 5 percent ($p < 0.05$). The results of the ECM regression seem to indicate that these variables have a significant impact on LNSBG. On the other hand, the coefficient for the variable $D(LNSBG(-2))$ has a p-value of 0.0839, which is significantly higher than the standard significance level of 0.05. This suggests that the impact of $D(LNSBG(-2))$ on the dependent variable does not meet the criteria for statistical significance at the standard level. Overall, the Error correction (ECM) factor conforms with the expectation. It's negative and significant at 5 percent. The negative value of (0.006875) indicates the speed of adjustment to shocks (Though, very slow speed of adjustment but it's significant).

Table 4: Short Run Result

ECM Regression				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
$D(LNSBG(-1))$	0.515745	0.071940	7.169073	0.0000
$D(LNSBG(-2))$	0.121705	0.069981	1.739111	0.0839
$D(LNMD)$	0.946206	0.387105	2.444316	0.0156
$D(LNML)$	-267.7179	82.50796	-3.244752	0.0014
$D(LNML(-1))$	199.9110	82.85860	2.412676	0.0169
$D(LNMS)$	267.2487	81.28616	3.287752	0.0012
$D(LNMS(-1))$	-200.6228	81.69425	-2.455776	0.0151
CointEq(-1)*	-0.006875	0.002601	-2.643815	0.0090

R-squared	0.507064	Mean dependent var	-0.007104
Adjusted R-squared	0.486767	S.D. dependent var	0.121408
S.E. of regression	0.086977	Akaike info criterion	-2.002441
Sum squared resid	1.286053	Schwarz criterion	-1.859439
Log likelihood	186.2172	Hannan-Quinn criter.	-1.944450
Durbin-Watson stat	2.017929		

Source: Author’s Computation 2023 using E-view 10.

Table 5: Conditional Error Correction Regression

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	3.276776	1.624893	2.016610	0.0453
LNSBG(-1)*	-0.006875	0.010020	-0.686181	0.4936
LNMD(-1)	0.007453	0.019287	0.386438	0.6997
LNML(-1)	-3.830307	2.884548	-1.327871	0.1860
LNMS(-1)	3.565949	2.795428	1.275636	0.2039
D(LNSBG(-1))	0.515745	0.073751	6.993048	0.0000
D(LNSBG(-2))	0.121705	0.074661	1.630104	0.1050
D(LNMD)	0.946202	0.642147	1.473497	0.1425
D(LNML)	-267.7182	85.29181	-3.138850	0.0020
D(LNML(-1))	199.9113	85.86847	2.328111	0.0211
D(LNMS)	267.2490	83.99411	3.181759	0.0017
D(LNMS(-1))	-200.6231	84.66369	-2.369648	0.0190
ARDL Long Run form				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
LNMD	1.084072	3.864888	0.280493	0.7794
LNML	-557.0973	1018.341	-0.547064	0.5851
LNMS	518.6475	960.2824	0.540099	0.5899
C	476.5941	716.2096	0.665439	0.5067

Table 5 for the Conditional Error Correction regression shows that the t-statistic for the lagged value of the Small Business Growth variable is negative and not statistically

significant ($p > 0.05$), indicating that the lagged value has no significant effect on the dependent variable over the long run. Also, Small Business Growth is not significantly affected by the lagged values of Microfinance Deposit (LNMD(-1)), Microfinance Loan (LNML(-1)), or Microfinance Size (LNMS(-1)). The t-statistics ($p < 0.05$) for the lagged value of all these variables show that they have no statistically significant effects on Small Business Growth. Conversely, $D(LNSBG(-1))$, has the tendency to contribute 0.515745 to LNSBG, and it is significant at 5 percent. $D(LNSBG(-2))$, and $D(LNMD)$, though were positively contributing but were not significant. Whereas, $D(LNML)$, $D(LNMS(-1))$ have the tendency to contribute negatively to small business growth but were significant at 5 percent. Small Business Growth is not significantly affected by the lagged values of Microfinance Deposit (LNMD(-1)), Microfinance Loan (LNML(-1)), or Microfinance Size (LNMS(-1)). The t-statistics ($p > 0.05$) for the first differences of all the variables show that they have statistically significant effects on Small Business Growth: $D(LNSBG(-1))$, $D(LNSBG(-2))$, $D(LNMD)$, $D(LNML)$, $D(LNMS(-1))$. Furthermore, in the long run, two (LNMD and LNMS) out of the three exhibit positive coefficients with LNMS indicating greater positive effect, while LNML shows negative effect of higher magnitude. However, none of them shows significance at 5 percent.

Table 6: Post Estimation Tests (Ramsey RESET test)

	Value	Degree of Freedom	Probability
t-statistic	0.668009	168	0.3384
F-statistic	0.118270	(1, 168)	0.2484
Likelihood ratio	0.428069	1	0.1264

Source: Author's Computation 2023 using E-view 10.

The Ramsey RESET Test was chosen to perform a linearity test on the model, with the default null hypothesis being the model was linear. This was done so that it could be determined whether or not the model was adequately specified. At the 5% level of significance, there was insufficient evidence to conclude that the null hypothesis is false. Therefore, the linearity of the model was demonstrated to be correct.

Discussion of Results

It was found that deposits made through microfinance had a significant impact on the growth of small businesses in Nigeria. This is an encouraging sign that the use of microfinance can help the economy grow and alleviate poverty at the same time. Even though they are an essential part of Nigeria's economy, the nation's small businesses frequently have trouble obtaining the financing they require. By broadening access to microfinance services, policymakers and microfinance institutions can make it easier for small businesses to expand and develop. The findings provided support for the conclusions

drawn by Yahaya et al. (2011), who discovered that microfinance significantly boosted the growth of businesses, particularly in terms of increased sales, employment, and income. In addition to the positive effects microfinance had on income and employment, Kumar (2019) found that it had a significant positive effect on the growth of informal small businesses. This was found in yet another study. The value of informal savings groups in assisting the growth of micro and small businesses in Nigeria was highlighted in the study as well.

The study also determined that the size of microfinance in Nigeria has no effect on the growth of small businesses. The results indicate that the size of a microfinance institution is not necessarily related to its effect on the expansion of small businesses. Despite the fact that larger microfinance institutions may have more resources and greater capacity to provide financial services, smaller institutions that are well-managed and provide effective training and support services can still have a significant positive impact on the growth of small businesses. The result contradicted Cole and Akintola's (2021) conclusion that the size of a microfinance institution had a significant and positive effect on the growth of small businesses. The authors argued that larger microfinance institutions have more resources to invest in technology, training, and other services that can help small businesses grow. However, Babarinde et al. Governance and management quality, as well as the nature of the services provided, may be more important than microfinance size in determining the impact of microfinance on the growth of small businesses, according to the authors.

Microfinance loan accessibility was also found to significantly influence the growth of small businesses in Nigeria. This highlights the importance of gender-inclusive policies and programs that increase women's access to credit, training, and support services in fostering economic growth and decreasing poverty. These results corroborated those of Adeel (2020), who found that access to microfinance loans promoted the growth of small businesses. The author argued that through the availability of microfinance loans, small businesses are able to expand and grow by investing in things like new equipment, inventory, and other resources.

Conclusion and Recommendations

From the preceding results and discussion, the following conclusions were derived. First, the findings of the study indicate that microfinance banks in Nigeria have a significant and negative impact on the expansion of small businesses in the short term. Despite that, in the long run the effect was beneficial and noticeable. According to the findings of this study, on the short term, the influx of deposits into microfinance banks may not necessarily translate into increased lending to small businesses or other economically productive activities. This may be due to the fact that in the short run, microfinance

institutions may face challenges in mobilizing deposits, which can limit their capability to provide loans and other forms of support services to small businesses. On the other hand, microfinance institutions have the potential to build a robust deposit base over the course of their existence, which will allow them to offer more extensive and long-term support to small businesses. The results also show that the size of a microfinance institution has little of an impact on the long-term success of a small business. Microfinance institution size was not found to be the most important factor in fostering the expansion of small businesses, according to the study's findings. Lastly, the evidence indicates that microfinance loans have a negative and significant effect on the growth of small businesses in Nigeria in the short term, but a positive and significant effect in the long term. The study concludes that access to loans can be advantageous for small businesses, although the immediate effects may not always be positive and the loan's full benefits may take time to manifest. Therefore, microfinance institutions should prioritize providing small businesses with long-term access to credit and support services.

Based on the results, the following recommendations have been made.

- i. Policymakers and microfinance institutions should concentrate on developing strategies to effectively mobilize and manage deposits, as well as establishing long-term financing models for small businesses.
- ii. Nigerian small businesses should prioritize microfinance service quality. Instead of microfinance size. Microfinance institutions should prioritize service quality. (MFIs). High-quality financial services, such as timely and affordable credit, savings, insurance, and other products, should be promoted by government policies and regulations.
- iii. Microfinance institutions should adopt responsible lending practices to ensure that loans are utilized effectively and do not impose a burden on small businesses. This may involve the development of effective screening and monitoring mechanisms, the establishment of appropriate interest rates and repayment terms, and the provision of financial education to borrowers to assist them in utilizing the loan effectively.

JEL Classification: G21, L11, L25, L26

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