

## ASSESSING THE IMPACT OF FINANCIAL INCLUSION ON THE PERFORMANCE OF SMALL AND MEDIUM ENTERPRISES (SMES) IN SOKOTO STATE

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### Abstract

*This study investigates the role of financial inclusion in driving the performance of small and medium enterprises (SMEs) in Sokoto State, Nigeria. Drawing on survey data collected from a sample of 367 SME owners and managers, the study employs robust regression techniques to analyze the relationships between various dimensions of financial inclusion, including financial literacy, financial self-efficacy, financial attitudes, and financial social networks, and key SME performance indicators. The findings offer a comprehensive and compelling blueprint for leveraging financial inclusion to propel the success and growth of SMEs in the study area. The results unequivocally underscore the pivotal importance of financial literacy, underscoring the urgent need for widespread financial education initiatives to empower SME stakeholders with the knowledge and skills for informed financial decision-making. Equally significant is the study's revelation of the counterproductive impact of overconfidence in financial self-efficacy, necessitating targeted interventions to cultivate a realistic and adaptive financial mindset. Furthermore, the profound influence of positive financial attitudes highlights the critical role of fostering a proactive and favorable financial mindset among SME owners and managers. The recognition of the value of leveraging financial social networks also provides a clear path for strengthening the collaborative and information-sharing ecosystem within the SME community.*

**Keywords:** Financial inclusion, SME performance, financial literacy, financial attitudes, Financial social networks, Sokoto State, Nigeria

### INTRODUCTION

Nigeria is predominantly a cash-based economy, which can be attributed to low financial literacy and limited financial infrastructure, leaving a significant portion of the adult population excluded from the formal banking system. This lack of financial inclusion has become a serious economic burden in emerging countries, including Nigeria, with the majority of money in the economy being held outside the banking system (CBN, 2018).

The prevalence of financial exclusion has presented significant challenges for the performance of small and medium-sized enterprises (SMEs) in Nigeria. In Sokoto State, for instance, many commercial enterprises have been unable to achieve sustainable performance due to an inadequate access to funding (Abdullahi et al., 2016). This issue of financial exclusion has become a pressing concern for the Nigerian financial system, as it hinders the growth and development of the country's business sector (Ibor et al., 2017).

While micro, small, and medium enterprises (MSMEs) tend to face greater financial exclusion compared to larger corporate entities, over half of SMEs in developing countries have identified access to financing as a key constraint to their operations (Olowe et al., 2013). The access to finance remains a significant challenge for small and medium enterprises (SMEs) in Nigeria. While the government has introduced various initiatives to support SME financing, the majority of SMEs continue to face difficulties in securing loans and other forms of credit from formal financial institutions due to factors such as lack of collateral, perceived high risk, and insufficient documentation. SMEs have resorted to alternative financing sources like microfinance institutions and informal lenders, but the effectiveness and reach of these options have been limited (Ariyo, 2008). This lack of access to financial services may have significant implications for the operational efficiency of SMEs, limiting their ability to tap into broader market opportunities, achieve sales growth, and leverage digital payment technologies such as point-of-sale terminals and mobile phones (Olowe et al., 2013). Ultimately, this financial exclusion can hamper the overall profitability and sustainability of SMEs in developing economies like Nigeria (Olowe et al., 2013).

Despite the challenges of limited access to finance, SMEs in Nigeria have shown resilience and continued to play a vital role in the country's economy over the 2021-2023 period. In 2021, the SME sector contributed around 48% to Nigeria's GDP, employing over 80% of the workforce (SMEDAN, 2024). However, the COVID-19 pandemic posed significant disruptions, with many SMEs experiencing reduced sales, cashflow challenges, and operational difficulties. To support the recovery of the SME sector, the Nigerian government introduced various stimulus packages and loan schemes, which helped some SMEs stabilize their operations by 2022. By 2023, the performance of SMEs in Nigeria showed signs of improvement, with increased access to finance, adoption of digital technologies, and a rebound in consumer demand. Yet, the lingering effects of the pandemic and persistent structural issues continue to constrain the full growth potential of the SME sector in the country (Edobor, 2023).

The relevant empirical studies conducted in Nigeria on the impact of financial inclusion on SMEs were carried out by Togun et al. (2022), and Ibor et al., (2017). However, these studies failed to disaggregate the impact of specific components of financial inclusion, such as financial literacy, financial self-efficacy, financial attitude, social network, and access to financial services, on the performance of SMEs in their respective study areas (Togun et al., 2022; Ibor et al., 2017).

Furthermore, a literature search reveals a dearth of empirical studies on the effect of financial inclusion on the performance of SMEs, particularly with regard to the Sokoto State of Nigeria (Togun et al., 2022; Ibor et al., 2017). To the best knowledge of this study, there is no existing research that investigates the impact of financial inclusion on the performance of SMEs in Sokoto State. Based on the foregoing, this study seeks to fill the research gap by exploring the impact of various components of financial inclusion on the performance of SMEs in Sokoto State, Nigeria.

To achieve the objective, this study is structured into five distinct sections: 1) Introduction, providing the background and context; 2) Theoretical Framework and Literature Review, delving into the theoretical underpinnings and relevant empirical studies; 3) Methodology, presenting the research approach; 4) Results and Discussion, focusing on the key findings; and 5) Conclusions and Recommendations, summarizing the study and offering suggestions.

## LITERATURE REVIEW

Financial inclusion refers to individuals and businesses having access to affordable and usable financial products and services, such as transactions, payments, savings, credit, and insurance, delivered in a responsible and sustainable manner (World Bank, 2023). Access to a transaction account is a crucial first step towards greater financial inclusion, as it enables people to store money and make payments, which can then lead to the use of other financial services like credit and insurance to start and grow businesses, manage risks, and weather financial shocks (Togun et al., 2022). The demand for enhanced digital financial inclusion has been further driven by the COVID-19 pandemic, as digital financial services can provide cost-effective access to formal financial services for underserved and financially excluded populations (World Bank, 2023).

The performance of small and medium-sized enterprises (SMEs) refers to the positive outcomes of their business operations, which can be measured using various indicators (Kotane & Kuzimina-Merlino, 2017). SME performance is a facet of organizational effectiveness, encompassing operational and financial outcomes, such as profitability, cost reduction, and innovation (World Bank, 2018). Additionally, SME performance can be evaluated based on the firm's financial, product market, and shareholder return (World Bank, 2018).

Theoretically, this study is grounded in several key theories, including the Technology Acceptance Theory, Financial Innovation Theory, and Diffusion of Innovation Theory. The Technology Acceptance Theory, proposed by Davis in 1989, offers a framework for understanding the determinants of technology acceptance, which is crucial in explaining SMEs' adoption of information systems and financial technologies (Bertrand & Bouchard, 2008). This theory suggests that the acceptance of modern banking technologies by business customers, such as SMEs, is fundamental to the performance of banks and the realization of financial inclusion, which in turn can improve the performance of SMEs with access to financial services. Given Nigeria's status as a developing nation with various challenges related to technology acceptance, this study is anchored on the Technology Acceptance Theory (Bertrand & Bouchard, 2008).

Existing empirical research has examined the relationship between financial inclusion and SME performance. For instance, Anthanasius and Opperman (2023) examined the financial inclusion and performance of MSMEs in Eswatini. They applied unconditional quantile regression and the study revealed that small changes in access to bank accounts, saving for business, formal saving, stokvel and informal saving at the 50th and 75th percentiles have a positive and statistically significant effect on microenterprises' annual turnover profit. Furthermore, Aritonang et al., (2022) investigated influence of financial literacy and financial inclusion on the performance of MSMEs in Indonesia using a survey dataset for a sample of five hundred and seventeen (517) MSMEs. They used Partial Least Square in the analysis and the results indicated that financial literacy and financial inclusion partially and simultaneously significantly affect the performance of MSMEs.

Significantly, Togun et al. (2022) analyzed the link between financial literacy, financial inclusion, and SME performance in Nigeria, using structural equation modeling to find a positive and statistically significant relationship between financial inclusion and SME performance. Similarly, Dorcas et al. (2023) estimated the effects of financial inclusion on the performance of micro, small, and medium enterprises (MSMEs) in Nigeria, revealing that financial inclusion has a significant positive impact on MSME performance. However, the

study also identified challenges such as lack of collateral, low income, and high interest rates as factors that negatively impact MSME performance by limiting their access to formal financial services. Overall, the extant literature suggests that improving financial inclusion can enhance the performance of SMEs and MSMEs, but barriers to accessing financial services remain a key challenge.

Additionally, [Ibor et al., \(2017\)](#) assessed the influence of financial inclusion on the performance of Nigeria's micro, small, and medium businesses (MSMEs). In order to collect data from respondents, the survey research design approach was employed, which included the use of questionnaires. The Pearson Chi-square approach was used to analyse the data. The findings demonstrate that, while financial inclusion has a favorable and significant influence on MSMEs' operations and growth, distance to financial services access points and infrastructural deficiencies have hampered MSMEs' timely and effective access to financial services in Nigeria. Moreover, [Eton et al., \(2021\)](#) investigated the contributions of small and medium-sized enterprises (SMEs), the challenges that small and medium-sized enterprises face, and how financial inclusion supports the growth of small and medium-sized enterprises, in order to establish the relationship between financial inclusion and the growth of small and medium-sized enterprises. A cross-sectional research design was adopted in the study. Inferential statistics were utilized to enhance the descriptive design. The study used correlation and regression analysis and the results show that financial inclusion is important in promoting SME growth. The survey also indicated that the cost of purchasing and servicing financial services is excessive; that certain financial services are difficult to use; and that some financial providers treat financial consumers with a lack of respect and dignity.

## DATA AND METHODOLOGY

This study used a survey research design in identifying and analyzing the impact of financial inclusion on SMEs performance in Sokoto State, Nigeria. The survey seeks to use primary sources of data in the analysis. In addition, the primary data was collected using a structured questionnaire. Furthermore, the population of this study comprises the total number of registered SMEs in Sokoto State. According to National Bureau of Statistics ([NBS, 2023](#)), Sokoto State has about seven hundred thousand, one hundred and six (700,106) registered SMEs. Based on the population of this study, the sample size is 384. Thus, the sample size was computed with a margin error of 5% (0.05) and a confidence level of 95% using a Raosoft sample size calculator available at [www.raosoft.com](http://www.raosoft.com). Moreover, this study used simple random sampling technique in selecting the respondents.

This study utilized a five-point Likert scale to measure the variables in the survey questionnaire, with response options ranging from "strongly disagree" to "strongly agree." The data collected was then analyzed using inferential techniques, specifically multiple regression analysis, to model the relationship between the dependent variable of SME performance and the independent variables are financial services, financial literacy, financial self-efficacy, financial attitude, and social network which are the components of financial inclusion. Thus, the model is specified as:

$$SMEP_i = \beta_0 + \beta_1 FIL_i + \beta_2 FSE_i + \beta_3 FIA_i + \beta_4 SNK_i + \mu_i \dots\dots\dots 1$$

Where SMEP = SMEs performance,

FIL = Financial Literacy,

FISE = Financial Self-efficacy,

FIA= Financial Attitude,

SNK = Social Network,

i = Study area,

$\beta_0$  to  $\beta_4$  = Coefficients of the estimated parameters and

$\mu$  = Error Term.

## RESULTS AND DISCUSSIONS

This section presents the empirical findings regarding the impact of financial inclusion on the performance of small and medium enterprises (SMEs) in Sokoto state. A total of 384 questionnaires were distributed to the respondents for data collection. However, it is important to note that 17 questionnaires were not returned, resulting in a final sample size of 369 questionnaires. This accounts for approximately 4.43% of the total surveys distributed. The response rate from the respondents was remarkably high, at around 95.57%. This high response rate is considered highly sufficient for drawing broad conclusions about the study. The substantial participation rate suggests that the study was able to capture a significant proportion of the target population, thereby increasing the reliability and validity of the findings. To provide a comprehensive understanding of the results, descriptive statistics were employed and are summarized in Table 1. This table presents an overview of the key findings related to financial inclusion and its impact on SME performance in Sokoto state.

**Table 1: Summary Statistics of the variables**

Variables	Mean	Std. dev.	Min	Max
SMEP	3.0054	1.2803	1	5
FIL	4.0865	0.4272	3.5	4.75
FSE	3.7949	0.3362	3.25	4.25
FIA	4.2942	0.1711	4	4.5
SNK	3.7867	0.5696	2.75	4.5

*Source: Authors' Computation from STATA Output.*

Based on the descriptive statistics presented in Table 1, it can be observed that the small and medium enterprises (SMEs) in Sokoto state exhibit a moderate level of performance, with room for improvement. The surveyed SMEs have a mean score of 3.0054 for SME performance (SMEP), indicating that there is potential for enhancing their overall performance. However, it is important to note that there is significant variation among the SMEs, as indicated by a standard deviation of 1.2803. In terms of financial literacy, the surveyed SMEs demonstrate a relatively high level, with a mean score of 4.0865. This suggests that the majority of SMEs in Sokoto state possess a good level of financial literacy and are well-informed about financial matters. The low standard deviation of 0.4272 indicates that there is relatively little variation in the level of financial literacy among the SMEs in the sample.

When it comes to financial self-efficacy, the surveyed SMEs display a moderate level, with a mean score of 3.7949. This indicates that the SMEs in Sokoto state possess a certain degree of confidence and belief in their ability to manage their financial affairs. The standard deviation



of 0.3362 suggests a relatively small variation in the level of financial self-efficacy among the SMEs. Furthermore, the surveyed SMEs exhibit a high level of financial attitude, with a mean score of 4.2942. This suggests that the SMEs in Sokoto state hold positive attitudes towards financial matters and recognize the importance of financial inclusion. The low standard deviation of 0.1711 indicates that there is little variation in the level of financial attitude among the SMEs. In terms of the financial aspect of social network, the surveyed SMEs demonstrate a moderate level, with a mean score of 3.7867. This suggests that there is room for improvement in the knowledge and utilization of social networks for financial purposes among the SMEs in Sokoto state. The standard deviation of 0.5696 reflects a moderate variation in the level of the financial aspect of social network among the SMEs.

Furthermore, the study conducted a correlation analysis to investigate the presence of multicollinearity among the variables. The findings of this analysis are presented in [Table 2](#).

**Table 2: Correlation Analysis of the Variables**

Variables	SMEP	FIL	FSE	FIA	SNK
SMEP	1.0000				
FIL	0.4561	1.0000			
FSE	-0.0862	0.6361	1.0000		
FIA	0.3668	0.0853	0.1493	1.0000	
SNK	-0.2831	-0.5579	-0.5579	0.1094	1.0000

*Source: Authors' Computation from STATA Output.*

Based on the correlation analysis presented in [Table 2](#), the results provide insightful interpretations of the relationships among the variables. The positive correlation of 0.4561 between SMEs Performance and Financial Literacy indicates that there is a moderate positive relationship between the level of financial literacy and the performance of small and medium enterprises in Sokoto state. This suggests that SMEs with higher levels of financial literacy tend to exhibit better performance outcomes. On the other hand, the negative correlation of -0.0862 between SMEs Performance and Financial Self-Efficacy suggests a weak negative relationship between the level of financial self-efficacy and SMEs performance. Although the correlation is close to zero, it implies that there may be a slight tendency for SMEs with higher levels of financial self-efficacy to have slightly lower performance outcomes.

In addition, the positive correlation of 0.3668 between SMEs Performance and Financial Attitude indicates a moderate positive relationship between the level of financial attitude and SMEs performance. This suggests that SMEs with more positive attitudes towards financial matters are more likely to achieve better performance outcomes. On the other hand, the negative correlation of -0.2831 between SMEs Performance and the Financial Aspect of Social Network suggests a moderate negative relationship between the level of the financial aspect of social network and SMEs performance. This implies that SMEs with higher levels of engagement and utilization of social networks for financial purposes may experience slightly lower performance outcomes. However, the relationship between financial inclusion and SMEs performance is examined and the results are shown in [Table 3](#).

**Table 3: Financial Inclusion and SMEs Performance Results**

Dependent Variable: SMEs performance				
Variables	Coefficient	Std. Err	T	Prob.
Financial literacy	3.2406	0.2325	13.93	0.000
Financial Self-efficacy	-2.6230	0.1630	-16.09	0.000
Financial Attitude	2.6345	0.2673	9.85	0.000
Financial Social Network	0.5553	0.1665	3.34	0.001
$R^2 = 0.61$ , F-stat. = 142.68 (0.000), H-test = 0.28 (0.5964), Mean VIF =4.41				

*Source: Authors' Computation from STATA Output.*

The regression results presented in [Table 3](#) provide valuable insights into the relationship between financial inclusion and the performance of small and medium enterprises (SMEs) in the study area. The findings suggest that financial literacy plays a crucial role, as a one-unit increase in the level of financial literacy is associated with a 3.2406-unit increase in SMEs' performance, holding all other variables constant. This underscores the importance of financial education and knowledge in enabling SMEs to make more informed financial decisions and access appropriate financial services. This is in agreement with work of [Togun et al. \(2022\)](#) who reported that financial literacy play significant role in determining the SME performance.

Interestingly, the regression coefficient for financial self-efficacy is negative and statistically significant, indicating that a one-unit increase in financial self-efficacy is associated with a 2.6230-unit decrease in SMEs' performance. This counterintuitive result may suggest that overconfidence in one's financial capabilities can lead to suboptimal decision-making and, consequently, poorer performance among SMEs. This contradicts the work of [Dorcas et al., \(2023\)](#) who indicated that financial inclusion has significant positive effect on SMEs performance.

In contrast, the regression coefficient for financial attitude is positive and statistically significant, suggesting that a one-unit increase in the favorability of financial attitudes is associated with a 2.6345-unit increase in SMEs' performance, holding other factors constant. This finding highlights the importance of cultivating a positive and proactive financial mindset among SME owners and managers, as it can contribute to improved business outcomes. The findings of this study align with the conclusions drawn by [Eton et al. \(2021\)](#), which also reported the significant and positive impact of financial inclusion on the performance of small and medium enterprises (SMEs).

Furthermore, the results show that the strength of an SME's financial social network also plays a significant role, as a one-unit increase in the strength of the network is associated with a 0.5553-unit increase in its performance, all else being equal. This underscores the value of leveraging social connections and networks to access financial information, resources, and support, which can ultimately benefit SMEs' performance. The result confirms the findings of [Ibor et al., \(2017\)](#) who reported the positive contribution of financial inclusion in improving the performance of SMEs.

## CONCLUSIONS AND RECOMMENDATIONS

The results provide a comprehensive understanding of the critical role that financial inclusion plays in driving the performance of small and medium enterprises (SMEs) in the study area. The findings unequivocally demonstrate the pivotal importance of financial literacy, underscoring the transformative power of financial education and knowledge for SME

performance. Equally noteworthy is the counterintuitive yet statistically significant negative relationship between financial self-efficacy and SME performance, suggesting that overconfidence in one's financial capabilities can lead to suboptimal decision-making and diminished business outcomes. Conversely, the study highlights the profound impact of positive financial attitudes, emphasizing the critical role of cultivating a proactive and favorable financial mindset among SME owners and managers. Furthermore, the results underscore the value of leveraging financial social networks, reinforcing the importance of accessing financial information, resources, and support through collaborative networks. The results presented in this study offers a comprehensive and compelling blueprint for leveraging financial inclusion to drive the performance of small and medium enterprises (SMEs) in the study area. The findings resoundingly underscore the pivotal importance of financial literacy, underscoring the urgent need for widespread financial education initiatives to empower SME owners and managers with the knowledge and skills for informed financial decision-making. Equally significant is the study's revelation of the counterproductive impact of overconfidence in financial self-efficacy, necessitating targeted interventions to cultivate a realistic and adaptive financial mindset among SME stakeholders. Furthermore, the profound influence of positive financial attitudes highlights the critical role of fostering a proactive and favorable financial mindset. Finally, the recognition of the value of leveraging financial social networks provides a clear path for strengthening the collaborative and information-sharing ecosystem within the SME community.

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