Re-evaluating Small and Medium Enterprises financial accessibility post COVID-19 pandemic in Nigeria

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ABSTRACT

Purpose — This paper re-examined financial accessibility for Small and Medium Enterprises (SMEs) in Nigeria by considering the times we live occasioned by the pandemic.

Method — The study adopts the cross-sectional survey research design. The primary data in this study were obtained via a questionnaire administered to 270 SMEs in Abia State, Nigeria, who had applied for credit from a bank within the last two years. The data were collected using a self-administered survey.

Result — The study showed that collateral is still a significant determinant of access to credit, as an increase in the ability of SMEs to provide collateral will significantly impact their access to credit. SME size (SSIZE) was found to have a positive and significant effect on credit access, implying that large SMEs are better able to access credit. Though SME age (SAGE) had an insignificant effect on access to credit and Cost of Credit (CCR) was found to impair access to credit which is significant at 5%. This is in line with expectation as a high-interest rate will discourage SMEs from seeking credit from banks.

Contribution — This study contributes to the emerging discourse on financial accessibility in Nigeria post COVID-19. It presented a useful insight into how the government, through its fiscal, monetary policy and direct intervention, could play a more active role in helping SMEs bounce back from the challenges brought in by the pandemic.

Keywords: access to credit, COVID-19, financial accessibility, Nigeria, SMEs
INTRODUCTION

For several decades, Small and Medium Enterprises (SMEs) financing has been a significant issue in academic and policy circles because it has been globally accepted that SMEs are a critical driver of economic growth and employment generation (Wall & Bellamy, 2019). Philip and Williams (2019) assert that SMEs have historically been the leading players in domestic economic activities, especially as providers of employment opportunities, hence generators of primary and secondary sources of income for many households. However, access to finance is a challenging issue for SMEs, and after the coronavirus (COVID-19) pandemic, it is even now exacerbated. Now more than ever, SMEs face more significant uncertainty about the external environment, including difficulties in accessing finance, which deters business growth (African Development Bank, 2021). Policymakers are concerned about the need to provide financial resources for the growth of SMEs because for an economy to stay competitive in today’s global environment, its small businesses must grow and adopt efficient production methods (Ronda et al., 2020).

In this regard, the International Monetary Fund (2020) has pointed out that closing the SME financial access gap, especially for emerging markets and developing economies, will increase annual economic growth by up to one per cent and also help raise the employment rate, potentially creating about sixteen million jobs by 2025. This underlines that SMEs are fundamental as part of developing countries’ economic fabric and play a crucial role in furthering growth, innovation and prosperity. In the case of Nigeria, which is a developing country with huge potential in the SME sector. The contribution of SMEs to the economy has not been heavily felt because SMEs in Nigeria do not reach the growth stage of their life cycle due to a lack of access to finance (Omeihe et al., 2021).

One way to tell whether an SME is financially inclusive is to look at its ability to acquire capital. Access to financial services through demand deposits, credit, payments, or insurance will boost SMEs’ effectiveness and growth (Ortiz-Molina & Penas, 2008). Nevertheless, most SMEs depend on access to credit for operational and developmental purposes. Ughetto (2008) asserts that several SMEs struggled to access external funding geared toward growth before COVID-19. Consequently, accessing credits during the post-COVID-19 era will be more stringent because most financial institutions were also affected by the pandemic (Çolak & Öztekin, 2021). Therefore, these financial institutions would reduce loan accessibility by playing safe to utilise their available resources to achieve their organisational goals effectively. To protect their business, financial organisations would design a more rigorous collateral method to reduce access.
to credit by SMEs. Also, loans might be provided with a higher interest rate, thus restricting SMEs’ accessibility.

Undoubtedly, the COVID-19 pandemic is taking an extremely heavy toll on economies worldwide. Global gross domestic product (GDP) is projected to decline with a highly uncertain outlook, dependent on the spread of the virus and possible medical breakthroughs (Kumar et al., 2021). Precisely, in African economies, the economic crisis as a result of the COVID-19 pandemic could be cut by three to eight per cent and worsened the GDP growth of African economies, where SMEs account for more than ninety per cent of businesses and almost eighty per cent of employment (African Development Bank, 2021). Throughout Sub-Saharan Africa, SMEs are experiencing significant commercial consequences due to the pandemic. Over a quarter of all SMEs could not continue functioning throughout the pandemic while over half were forced to alter their business models to maintain operations, and over ninety per cent experienced a fall in revenue, with forty per cent experiencing revenue losses of more than fifty per cent (African Development Bank, 2021). In the wake of the pandemic, access to credit has become a severe challenge for businesses worldwide. According to the OECD (2020), simulations based on firm-level data suggest that without government involvement, twenty per cent of enterprises would run out of cash after one month, thirty per cent after two months, and close to forty per cent after three months. It should be underlined that the new pandemic-related funding limitations impose even more enormous obstacles to small firms’ operations and financial viability and, in many instances, constitute a danger to their very existence.

Many scholars have argued financial accessibility is one of the main challenges at the different stages of SMEs growth (Adomako et al., 2016; McCann and Ortega-Argilés, 2016; Quartey et al., 2017; Atiase et al., 2018; Abubakar et al., 2019). Several empirical studies have established the relationship between SME growth and access to finance. For instance, Chen and Kieschnick (2018) used the quasi-likelihood model to ascertain the tangible assets, sales growth and general profit margins of selected SMEs in the US from 2000 to 2016. The study revealed that using bank loans to finance SMEs’ working capital in the US could increase the business size. Although the prospect of profitability and sales growth were reviewed, no attempt was made to analyse the accessibility of finance by SMEs. Yussif et al. (2019) affirmed that several SMEs in Ghana had been crippled due to a lack of financial resources. They asserted that using the resource-based view (RBV) theory, the growth of SMEs might be determined by the availability of financial resources. The study revealed that RBV could be significant for SMEs to access sufficient finance for growth and survival. However, much effort was not
made to address the stringent measures financial providers give SME owners seeking loans. Similarly, in Nigeria, Ibrahim and Ifeyinwa (2020), using the signalling theory, asserted that the challenge of most lending institutions is to effectively monitor SMEs’ performance and ensure that they are making satisfactory progress. The finding further revealed that monitoring could be complex due to the level of transparency in most SME management. Okuwhere and Tafamel (2022) affirm that the level of volatility in Nigeria’s SMEs’ growth is connected to the high level of risk due to a lack of proper recording and documentation of most businesses.

Therefore, taking cognisance of the times in which we live and the enormous disruptions occasioned by the pandemic and how this has affected both providers and users of credit, this study seeks to re-assess the relationship between demand-side factors and credit access. There is considerable literature (Menkhoff et al., 2012; Bonini et al., 2015; Neuberger and Rathke-Doppner, 2015; Stefani and Vacca, 2015; Rahman et al., 2016) which has already examined this before the pandemic. But not much is known regarding if these relationships might change due to the global push for economic recovery, especially for the SME sector, which is even more critical for developing economies like Nigeria.

**METHOD**

The study adopts the survey research design, and primary data in this study were obtained via a questionnaire administered to 270 SMEs in Abia State, South-East Nigeria. The data were collected using a self-administered survey. The research broadly included three business sectors (finance, services, and manufacturing) in three major Abia cities (Aba, Abiriba, and Apumiri). These areas are considered the central market hub in Abia state. The survey was designed for managers and owners of SMEs. The questionnaire consisted of a nearly standardised questionnaire that allows easy access to information from a broad group of respondents. A purposive sampling technique was employed in sampling the selected SMEs. The justification for the sampling technique is that the regions specified in Aba are the areas where manufacturing activities are majorly carried out; hence the regions fit into our study.

The study population represents 1809 managers of SMEs registered with the Abia State Ministry of Trade and Investment who had applied for credit from a bank within the last two years. A sample size calculator, Raosoft, determined the sample size. The margin of error, the expected response distribution, the population, and the confidence level (Raosoft, 2010). Raosoft provided a minimum recommended sample size of 120 with a 5% margin of error. However,
270 questionnaires were distributed because of the problems associated with the self-administered data collection, such as response bias. Study data were collected using 4-point Likert Scale structured questionnaires. Therefore, the primary data used are obtained from the answers given by the SME owners/managers. The stereotype ordinal regression analysis establishes the likelihood of the strength of causality of the dependent variable by the independent variable.

Hypotheses development

The paper identifies key determinants of SMEs’ access and forms the basis for the hypotheses raised and tested in this study.

Collateral

In asset-based lending, collateral reduces asymmetric knowledge and moral hazard (Niinimaki, 2016). Traditionally, lenders reduce the borrower’s risk of default by requiring collateral as part of the loan agreement (Liu et al., 2020). Financial institutions may have difficulty pricing SMEs’ loans because of knowledge asymmetry, which may lead to credit rationing. Firms often pledge collateral to improve their credit quality for banks, which helps to decrease credit rationing (Kirschenmann, 2016). As a result, banks are less likely to experience adverse selection and moral hazards when collateral is required (Godlewska & Weill, 2011). Since lenders use collateral to distinguish between good and bad borrowers, the research concludes that collateral serves this purpose. Hence, if SMEs can provide collateral, they stand a greater chance of getting that financing. Hainz et al. (2013) affirm that long-term loan financing may be more easily obtained via collateral. In light of the above, the hypothesis is specified as follows:

H₁: Collateral has a significant impact on access to finance for SMEs.

SMEs size

Several studies have shown that the organisation’s size may favour credit availability (Hernandaz-Canovas and Martinez-Solano, 2010; Cenni et al., 2015; Dai et al., 2017; Bernini and Brighi, 2018; Drempetic et al., 2019). Large firms have more bargaining power and can negotiate credit conditions with banks that allow for higher loan amounts (Cenni et al., 2015). According to Brancati (2015), SMEs are more restricted in their access to finance because of the greater degree
of information opacity. In general, it is the case that SMEs’ access to bank financing may be improved by reducing the opacity and asymmetry which tends to be associated with the SMEs’ size. As a result, the research predicts that the size of the business will benefit the ability to get financing. In light of the above, the hypothesis is specified as follows:

H$_2$: SMEs Size has a significant impact on access to finance for SMEs.

**SMEs age**

A lack of information openness makes younger enterprises more exposed to bank financing restrictions. As a result, they are more likely to be denied credit since they have a lower degree of asset intensity (Ferri & Murro, 2015). Kirschenmann (2016) reveals that banks have a more challenging time evaluating the repayment history of newer enterprises since they have not received any past loans from them. Furthermore, the default rate for younger firms was greater than that of older firms when looking at firm survival analyses in determining credit availability (Caselli et al., 2021). Therefore, older SMEs have a better chance of establishing a long-term bank-borrower relationship than younger businesses. Due to their long-term connection with banks, older firms can get more loans (Comeig et al., 2015). Following the preceding, the hypothesis is formulated as follows:

H$_3$: SMEs’ access to financing is significantly affected by the firm’s age.

**Cost of credit**

Chaibi and Ftiti (2015) reveal that high-interest rates are the most significant impediment for small businesses. In Portugal, banks with lower interest rates got more loan applications than banks with higher interest rates. According to Farinha and Felix (2015), SMEs are more likely to fail on their loans if interest rates are greater since the higher cost of loans increases the debt load on SMEs. But numerous factors influence interest rates on loan contracts, such as relationships, collateral availability, credit market concentration and competition, bank size and maturity of the loan and the loan size (Rahman et al., 2016). Hernandaz-Canovas and Martinez-Solano (2010) affirm that borrowers are deterred from taking loans from banks since this increases their debt load, which may impair the value of their company when the costs of most loans are too high. Therefore, an inverse correlation between interest rates and access to credit should be expected since greater borrowing costs may deter borrowers
from taking out bigger bank loans. Following the preceding, the hypothesis is formulated as follows:

H4: The cost of credit has a significant effect on SMEs’ access to finance

**Model specification**

The model for the study examines determinants of SME access to credit and identifies some demand-related factors in line with Brancati (2015) and Cenni et al. (2015). The model is presented below:

\[
ACC = \alpha_0 + \beta_1 COL + \beta_2 SAGE + \beta_3 SSIZE + \beta_4 CCR + \mu \quad \text{------------------ (i)}
\]

\(\beta_1, \beta_2, \ldots, \beta_p\) are coefficients for the predictors, respectively,

ACC= Access to Credit
COL = Collateral
SSIZE= SME size
SAGE= SME Age
CCR= Cost of credit

**RESULT AND DISCUSSION**

**Table 1. Demographic data of SME owners and managers**

| Variables     | Frequency | Percentage (%) |
|---------------|-----------|----------------|
| **Age**       |           |                |
| 18-30         | 72        | 26.67%         |
| 31-50         | 139       | 51.48%         |
| 51 and above  | 59        | 21.85%         |
| **Total**     | 270       | 100            |
| **Gender**    |           |                |
| Male          | 142       | 54%            |
| Female        | 128       | 46%            |
| **Total**     | 270       | 100            |
| **Academic level** | |         |
| Primary       | 83        | 30.74%         |
| Secondary     | 68        | 25.19%         |
| Higher degree | 101       | 37.41%         |
| Others        | 18        | 6.67%          |
| **Total**     | 270       | 100            |
Table 1 provides the respondents’ demographic details. It shows that the majority of the SMEs are 51.48% aged between 31 and 50, 26.67% aged between 18 and 30, and 21.85% were aged 51 and above. 142 (54%) of the respondents are male, while 128 (46%) are female. 83, representing 30.74%, had obtained secondary school leaving certificates, 68 (25.19%) had obtained secondary school leaving certificates, 101 (37.41%) had obtained higher certificates, and 18 (6.67%) had obtained other certificates. On respondents’ marital status, the majority were married at around 61.85 per cent, 32.59 per cent were singles, and 5.56 per cent were divorced.

For the SME-specific attributes, the majority of respondents have about 153 (56.67%) for one to three years, 95 (35.19%) for four to five years, while 22 (8.15%) for six years and above have been active. Many of the SMEs, 104 (38.42%), participate in trading, mini-export & mini-import; 84 (31.11%) are involved in small processing activities, while 82 (30.37%) are small retail distributors. Furthermore, 147 (54.44%) operate as sole proprietorship.
businesses, and 12 (4.44%) need funds to fully start up their business, whereas 136 (50.37%) of the SMEs require expansion capital. 94 (34.81%) are involved in a partnership agreement, while 29 (10.74%) are limited liability companies. 86 (31.85%) need capital for capital expenditure, and 36 (13.33%) require money for day-to-day business operations.

Table 2. Nature of SMEs’ businesses

| Nature of SMEs by category | Frequency | Percentage (%) |
|----------------------------|-----------|----------------|
| Manufacturing              | 45        | 16.67          |
| Transport service          | 26        | 9.63           |
| Agriculture                | 38        | 14.07          |
| Fashion                    | 32        | 11.85          |
| Construction               | 26        | 9.63           |
| Retail/Wholesale           | 44        | 16.3           |
| Food and Beverage          | 26        | 9.63           |
| Woodwork/Carpentry         | 22        | 8.15           |
| Others                     | 11        | 4.08           |
| **Total**                  | **270**   | **100**        |

source: authors’ fieldwork (2022)

Table 2 shows that a total of 270 selected SMEs are compiled as research samples. The study covers diverse sub-sectors. Most SMEs were drawn from the manufacturing and retail/wholesale categories, representing 45 (16.67 per cent) and 38 (16.3 per cent), respectively. In comparison, sub-sectors with the lowest number included those in the woodwork/carpentry category, which represents 8.15% of the total sample size, and other SME categories, which represent about 4.08% of the total sample size. Most SMEs are still at their early stages and are owned and operated independently by their owners, who provide different products/services to clients. The SMEs were randomly selected from three cities in Abia, namely Aba, Abiriba, and Apumiri.

Table 3. Stereotype ordinal regression result

| Coefficient | Z-value | [95% Conf. Interval] |
|-------------|---------|----------------------|
| ( ) standard error | ( ) p>|z| |
| COL         | 0.8034  | 2.34                 | .1299983 - 1.477105 |
| SAGE        | -0.3445 | -1.40                | -.8258608 - .1367639 |
| CCR         | -0.7163 | -2.02                | -1.411002 - .0216075 |
| SSIZE       | 0.2202  | 0.97                 | -2.251058 - .6654876 |

Constraints

Φ₁ 0 (base outcome)
Φ₂ 0.4833 1.85 -0.293344 - 0.9958908
(0.2615) [0.065]
The log-likelihood ratio Chi-Square test, $LR \chi^2 (4) = 3443.64$, $p < .001$, indicates that the full model with four predictors better fits the null model with no independent variables. The Cox-Snell $R^2 = .575$ and Nagelkerke $R^2 = .583$ show the model's goodness of fit. The results from the regression reveal that COL has a positive (0.0834) and significant ($p=0.019$) effect on access to credit. This implies that an increase in the ability of SMEs to provide collateral will significantly impact their access to credit. Collateral serves as a means to reduce asymmetric information and moral hazard in asset-based lending (Niinimaki, 2016). Research also shows that collateral is a positive signal for banks to mitigate adverse selection and moral hazard as it is less likely that poor-quality borrowers may pledge collateral. The finding is consistent with other studies findings (Duarte et al., 2017; Rahman et al., 2017; Yin et al., 2019). Therefore, the null hypothesis $[H_1]$ that Collateral has a significant impact on access to finance for SMEs is accepted.

The results from the regression reveal that SME size (SSIZE) has a positive (0.2202) and significant ($p=0.033$) effect on access to credit which implies that large SMEs are better able to access credit. Our findings are consistent with Brancati (2015), Ortiz-Molina and Penas (2008). As the firm gets larger, it can acquire more tangible assets that can be useful for banks in assessing the credit risk of the firm. At the same time, large firms can gain more bargaining power and negotiate credit terms with banks, which may facilitate loans with fewer restrictions and larger loan sizes (Cenni et al., 2015). Therefore, the null hypothesis $[H_2]$ that SME size significantly impacts access to finance for SMEs is accepted.
The results from the regression reveal that SME Age (SAGE) have a negative (-0.3445) effect on access to credit though this is not significant at 5% (p=0.161). The outcomes appear to be in contrast with Kirschenmann (2016), and hence the hypothesis [H₃] that Firm Age has a significant impact on access to finance for SMEs is rejected. Cost of Credit (CCR) was found to have a negative effect (-0.7163) on access to credit which is significant at 5% (0.043), and this is in line with apriori expectation as a high-interest rate will discourage SMEs from seeking credit from banks. The finding is in line with studies such as Beck and Demirgüç-Kunt (2006), Chaibi and Ftí (2015), Farinha and Felix (2015), which showed that a high-interest rate is the most vital financing obstacle for SMEs. Hence they are discouraged from getting loans from banks when the cost of loans is too high because it increases their debt burden, which can negatively affect the firm’s value (Hernandez-Canovas & Martinez-Solano, 2010). Hence the null hypothesis [H₄] that the Cost of Credit significantly impacts SMEs’ access to finance is accepted.

Recall that \( \phi \) is a list of ordinality constraints with the first constraint = 1 and it satisfies the condition 1 = \( \phi_1 > \phi_2 > \phi_3 > \ldots \phi_{J-1} > \phi_J = 0 \). The estimated \( \phi_j \)s in the model were as follows: 0, 0.4833, -0.3122 and 0.9782 which were used to ensure the ordering of the level of the responses. Using the constraints, we proceed to compute the odds ratios. When the odds ratio is greater than 1 (i.e., computed from positive \( \beta \)'s), it indicates that, as the predictor increases, the odds of the event occurring increase by a factor of \( \exp(\beta) \), holding all the other variables constant. Conversely, a value lower than 1 (i.e., computed from negative \( \beta \)'s) indicates that, as the predictor increases, the odds of the event occurring decreases by a factor of \( \exp(\beta) \), holding all the other variables constant. Since \( \phi_2 = 1 \), the odds that access to credit will be very high compared to being very low if there is a unit increase in collateral is \( = e^{(1*0.8034)} = e^{-1.864} = 2.233 \). This indicates that a unit increase in SME collateral will increase access to credit more than proportionately specifically by 2.3%.

Furthermore, \( \phi_3 = 0.4833 \), the odds that access to credit will be very high compared to being very low if there is a unit increase in SME age is \( = e^{(0.4833*0.73316)} = 1.4252 \). This indicates that a unit increase in SME Age will increase access to credit more than proportionately specifically by 1.5%. The odd ratios for \( \phi_4 \) and \( \phi_5 \) also reveal the extent to which a unit increase in CCR and SSME will impact the odds of increased access to credit.
CONCLUSION

It is apt at a time when countries and economies are on the verge of recovery from the disruption occasioned by the COVID-19 pandemic. There is a need to revisit the issue of SME access to credit, especially in developing countries like Nigeria, where the institutional framework to support SME recovery is far from effectively structured, targeted and implemented. As noted earlier, in the wake of the pandemic, access to finance has become a significant concern for enterprises worldwide. Therefore, recognising the times in which we live, the enormous disruptions occasioned by the pandemic and how this has affected both providers and users of credit, this study re-assess the relationship between demand-side factors and credit access.

The study showed that collateral is still a significant determinant of access to credit as an increase in the ability of SMEs to provide collateral will significantly impact their access to credit. SME size (SSIZE) was found to have a positive and significant effect on credit access, implying that large SMEs are better able to access credit. However, the SME Age (SAGE) had an insignificant effect on access to credit. Cost of Credit (CCR) was found to impair access to credit at 5%, which aligns with apriori expectation as a high-interest rate will discourage SMEs from seeking credit from financial institutions. Financial accessibility is vital for SMEs to survive during the post-COVID-19 era, especially in a developing country like Nigeria. It will boost economic conditions by promoting innovation, microeconomic resilience, and improving GDP.

Leveraging on partnership will help to encourage idea sharing that would inspire SMEs to be creative and lead to establishing more small businesses. This will generate employment because more employees will be required in a vigorous partnership which will boost SMEs stakeholders economically. Similarly, owners and managers of SMEs in emerging economies could consider mergers or partnerships to alleviate the menace caused by COVID-19.

This will quicken their recovery from the challenge arising from the pandemic. The study concludes that through its fiscal, monetary policy and direct intervention, the government has to play a more active role in helping SMEs bounce back from the challenges brought in by the pandemic.

Policy and managerial implications

This study suggests that government agencies like the Central Bank of Nigeria (CBN), Bank of Industry (BOI), Small and Medium Enterprises Development Agency of Nigeria (SMEDAN) should focus on simplifying the funding mechanisms of the formal financial sector, particularly during the post-COVID-
19 era, to meet the needs of SMEs. In addition, policymakers must go beyond simple steps to increase access to financing and strengthen the institutional framework to revive and enhance the growth of SMEs.

Also, they should introduce an effective programme to encourage SMEs to redesign their business model to suit the reality post-COVID-19. The programme could be comprehensive to assist small businesses in accessing credit quickly. It might be structured to sponsor digital innovation in SMEs, as this is one of the good things the pandemic brought to businesses. Through the Covid-19 lockdown and various regulations put in place by the government to curb the spread of the virus, many SMEs in Nigeria have moved most of their business online using the Internet. We witnessed an increase in SMEs’ products and services on social media platforms. Some of these SMEs may not have operated in this form before COVID-19. In the post COVID-19 era, SMEs that have become accustomed to this business operation will not fade it out but use it to improve their business progress. Therefore, vital information and communications technology system should be put in place by the relevant bodies to boost what is currently in operation.

Furthermore, there is a need for SME owners in Abia state and Nigeria to collaborate with local and international organisations to train them on proper financial recording and documentation; this will prepare them to be eligible to access credit in future in case of a similar challenge. Additionally, there is a need for actions from various stakeholders, especially the state and federal governments, to ensure improved institutional structures and a viable economic environment where SMEs can thrive better even after the pandemic because entrepreneurship and economic growth are interrelated. As such, entrepreneurs act on profit to make the economy more productive by increasing economic activity and thus generating employment opportunities and boosting the country’s national income.

**Limitations and suggestions for further studies**

The researchers used a relatively small sample size compared to the number of SMEs in Nigeria. Consequently, future researchers on this subject matter should increase the studies to cover more states to enhance all-encompassing findings. This could be achieved by taking samples size from major cities across the nation, which will give a comparative analysis of financial accessibility as a drive for SMEs’ growth based on location. Furthermore, future studies could focus on the influence of financial accessibility on SMEs’ development in Nigeria: post COVID-19; this will guide both existing SME owners and intending entrepreneurs.
Finally, future researchers can increase the variables to measure how financial accessibility by SMEs could drive economic growth in Nigeria or other countries in post COVID-19 era.
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