Effect of Business Credit Availability on SMES Growth of Selected Small and Medium Enterprises in Southwest, Nigeria

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Abstract: The growth of small and medium enterprises (SMEs) is of interest to all countries in the world. Small and medium enterprises are acknowledged as the drivers of social and economic development due to their significant roles in employment generation, income generation, growth of gross domestic product (GDP), and entrepreneurship. Despite these immense contributions of SMEs, small and medium scale businesses in Nigeria have been beleaguered with incessant poor growth such as declining profitability, poor output, low market share, stunted revenue growth, and low sales due to credit non-availability to SMEs operations in Nigeria. The study examined the effect of credit availability measures (information asymmetry, bank density, and credit rationing) on the growth of selected small and medium enterprises in Southwest, Nigeria. The study employed multiple regression method of analysis through Partial Least Squares Structural Equation Modelling (PLS-SEM) for hypothesis testing. Finding revealed that business credit availability measures (information asymmetry, bank density, and credit rationing) have no significant effect on the growth of selected small and medium enterprises in Southwest, Nigeria. The study concludes that business credit availability measures affect SMEs growth of selected small and medium enterprises in Southwest, Nigeria. It is therefore recommends that SMEs owners should focus on and understand deposit money banks strategies such as information asymmetry, bank density and credit rationing so as to continuously record growth in their business activities.

Keywords: Business Credit Availability, information asymmetry, bank density, credit rationing and SMEs growth

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I. Introduction

The growth of small and medium enterprises (SMEs) industry is of interest to all countries in the world as the industry significantly contributes to economic activities, employment generation, and national development of any economies across the globe. Ariguzo, Egwuakhe and Adefulu (2019) have posited that SMEs business performance ascent has remained a universal dilemma which has been generating a vast amount of argument among practitioners, researchers, and policy makers. Kamrul (2019) has argued that for any economies to achieve sound and greater economic activities, continuous SMEs growth is the answer and barometer to achieve economy income generation and growth. Despite enormous contributions of SMEs towards an economy, small and medium scale businesses have been characterized with incessant declined in growth in terms of sales and revenue especially in developing countries. SMEs are due to the challenges of credit availability from financial intermediaries.

In economies of developed countries such as Japan, United States, China and Russia, SMEs have experienced deterioration in performances (World Bank Report, 2018). According to Gunel (2017), small and medium scale businesses are faced with numerous challenges that resulted in their failure. Likewise, it is evident that most of SMEs in emerging economies in the Europe faced the challenges of credit non-availability, thus daunting their growth and reducing their targeted contributions to economic activities.

The issue of declined in SMEs growth has been a trend in the world over, Africa is not an exception, and it requires adequate availability of business credit. However, lack of credit availability to the SMEs sector is universally recognised in developing countries like Africa economies. In Africa, it is agreed among researchers that inability to access credit remains a major hindrance to SMEs performance (Ajayi, 2019; Makanga & Paul, 2017; Aminu, 2018). In Nigeria, in spite of dominance and significant contributions of SMEs to economic activities and development recorded in developed countries, SMEs in Nigeria perform below expectation as low as one percent (1%) to GDP and continuous decline in growth compared with countries like Indonesia, Thailand, and India where SMEs contribute almost 40 percent (Entrepreneurship Outlook, 2019).
The growth of small and medium scale enterprises as an instrument of economic growth has long been under academic scrutiny. This intense scrutiny has been against the backdrop of the decline in SMES growth that has characterised the small and medium scale enterprises in developing countries like Nigeria particularly due to its poor access to credit availability which is a plague to overall performance among other challenges (Ajayi, 2019; Aminu, 2018). The decline in SMES growth has been largely attributed to several factors such as non-availability of credit extension from banking industry. As pointed by Ekpo, Udoidem, and Acha (2017) that SMES in Nigeria has been characterised by deterioration in growth due to lack of access to finance.

Several factors have been identified in literature as the cause of problem for credit non-availability to SMES by banks in Nigeria. Some of the identified problem include corporate issues, banks points of restriction, and credit establishments (Imoughele&Ismaila, 2014), lack of collateral security, poor credit rationing and information gap between bank and SMES owner (Abosede, Hassan, &Oko-Oza, 2017), inconsistency in government policies, high monetary policy rate, loan diversion, exchange rate depreciation, infrastructural decay and tenor of loans (Ajayi, 2019; Ubesie, Onuaguluchi, &Mbah, 2017), informational barriers, lack of management expertise, high default rate, monitoring (Alhassan& Sakara, 2014; Bondinuba, 2012). Similarly, Aguwamba and Ekienabor (2017),Eniola and Ektebang (2015) and Olatunji and Ibukun-Falayi (2018) asserted that deposit money bank in Nigeria denied to extend credit to SMES due to the high interest rate and fear of the collapse of SMES before maturity stage, all these problems aforementioned, thus reducing SMES growth in Nigeria. Past studies especially in Nigeria on SMES financing and performance have not employed information asymmetry, bank density, and credit rationing as measure for SMES credit availability in modeling SMES performance. This creates variable measurement gap this study intends to fill. Based on problem of non-availability of credit to SMES and variable measurement gap identified, this study hypothesis that;

H0: Business credit availability measures (information asymmetry, bank density, and credit rationing) have no significant effect on the growth of selected small and medium enterprises in Southwest, Nigeria

II. Literature Review

This sub-section of literature review focused on credit availability and its measures such as information asymmetry, bank density, and credit rationing.

2.1 Credit Availability

Credit availability refers to the amount of credit to which a borrower has access at a given time. Asad(2018) defined access to credit as the ability of a firm or households to obtain financial products and services at reasonable cost. On the other hand, firms and household that can’t access financial products and services are termed as financially constrained. Harelimana (2017) described access to finance as the ability of individuals or enterprises to obtain financial services, including credit, deposit, payment, insurance, and other risk management services. Those who have only limited access to financial services are referred to as the unbanked or under banked, respectively. Abiola (2012) has viewed access to finance as a contractual agreement in which a borrower receives something of value now and agrees to repay the lender at some later date. The financial services provided to SMES include financial products and services such as savings, credit, insurance and payment systems (Nyakodo&Okello, 2016).

2.1.1 Information Asymmetry

According to Taiwo, Falahun, and Agwu (2016), information asymmetry is a situation in which one party in a transaction has more or superior information compared to another. This often happens in transactions where the seller knows more than the buyer, although the reverse can happen as well. Potentially, this could be a harmful situation because one party can take advantage of the other party’s lack of knowledge. Information asymmetries associated with lending to small scale borrowers have restricted the flow of finance to smaller enterprises.

The main information asymmetries that constraint SME access to finance include high cost of obtaining credit information on SMES, inconsistent SMES financial statements and audits and lack of access to third party information by providers in the marketplace (Ganbold, 2008). Due to lack of information on the creditworthiness of potential SMES, banks perceive SMES as high risk and thus charging higher interest rates (Mazanai&Fatoki, 2012). This in turn discourages low risk SMES to seek financing and ultimately reduced the interest of banks to lend. Ganbold (2008) highlighted that SMES also produce financial statements with large discrepancies and unreliable as they are not required to adopt international accounting standards. It is also reported that banks also need to rely heavily on third party information especially from credit bureaus in order to get histories and credit profiles of SMES.

Nega and Hussein (2016) have indicated that the existence of information asymmetry issues between banks and the potential SME borrowers have severe implications in the lending methodologies used by loan officers, i.e., bank loans depend highly on high collateral values. Firms that hoard information or have a low
credit standing require close monitoring by a financial intermediary hence may not have direct access to the credit markets (Karlan&Morduch, 2009). Verrecchia (2001) has opined that information asymmetry is the difference in the cost of capital in the presence or absence of an adverse selection problem that arises from information asymmetry. Information asymmetry is comprised of a situation where in a contract the two parties involved does not have the full information about the contract. According to Wu, Song, and Zeng (2008), information asymmetry is a core reason commercial banks are generally reluctant to provide loans to SMEs. In most instances, SMEs are unable to provide information on their creditworthiness.

2.1.2 Bank Density

Bank density according to Olatunji and Ibukun-Falayi (2018) is the value of total assets of deposit money banks. Bank density could be termed as a capital ratio which is measured using Tier 1 ratio, where the ratio of tier-1 capital to total risk- weighted assets. Olatunji and Ibukun-Falayi (2018) further asserted that bank density is the asset value ratio represents the ownership of assets by banks and high asset ownership enables banks to offer more financial services at low cost.

Bank density otherwise regarded as number of financial institutions also determines credit accessibility by SMEs. The number of financial institutions offering credit in an economy has an impact on the overall growth of an economy. As observed by Schoof (2006) an inadequate number of financial institutions offering credit services to SME’s would constrain development of the industries. When there are many small-scale traders and the financial institutions with the services customised to them are few (demand exceeds supply), the price of the loan will be high therefore not affordable and hence low uptake by SMEs. The issue of bank density is crucial to ensuring stability of financial sector to finance SMEs activities in an economy because, bank serves as the blood veins of the SMEs economy drive (Muriithi, 2017).

Bank density is the bank size for a firm in a given industry at a given time which results in the lowest production costs per unit of output and generally measured by total asset of the deposit money banks (Owenvbuegie&Igbinedinion, 2015). According to Muriithi (2017) bank density is a primary factor in determining the profitability of a bank and its loan extension to SMEs industry due to the concept of economies of scale in the neo classical view of the firm. Muriithi (2017) furthershowed that in today’s global economy, bank density is very critical to performance due to the phenomenon of economies of scale. Essentially, it means larger deposit money banks can obtain cost leadership relative to smaller banks. A firm’s size is seen in the banking industry as a resource in obtaining sustainable competitive advantage in terms of profit and market share which determine credit extension to economic sectors.

2.1.3 Credit Rationing

According to Maranga and Nyakundi(2017), credit rationing is a situation in which the demand for credit exceeds the supply of credit at the prevailing interest rate. The bank’s credit rationing behaviour may theoretically be influenced by a number of factors which include credit history, age and size of the firm, risk profile and collateral offered (Mole & Namusonge, 2016). Credit rationing or restrictions for SMEs arise from a higher default risk that is associated with SMEs. This association is often due to the fact that commercial banks cannot generate sufficient information about the businesses which apply especially for start-ups, and that the business success is uncertain (Levenson & Willard, 2000). Bank’s credit rationing behaviour may theoretically be influenced by a number of factors which include the borrower’s observable characteristics (age, gender, wealth, experience, credit history), firm characteristics (business experience, risk profile, earnings), and loan characteristics (Diaz-Serrano & Sackey, 2015).

1.1.4 SMEs Growth

According to Janssen (2009a), SMEs growth is an expansion of demands for products or services. It first results in a growth in sales and consequently in investments in additional production factors to adapt to new demands (Janssen, 2009a). The growth rate performance of SMEs output is a key driver and indicators for the level of industrialisation, modernisation, urbanisation, employment generation, income per capital, equitable distribution of income, and standard of living by the citizenry (Abiodun, 2014; Aremu & Adeyemi, 2011). Several studies established that performance of SMEs sectors are associated and significantly determine by effective access to financial resources, infrastructural facilities and friendly government policies (Abiodun, 2014; Altenburg & Eckhardt 2006; Babajide, Adegbuyoye & Omanghanlen, 2015; Wiklund & Shepherd, 2005). Considering the vital role of financial resources to SMEs output performance, Central Bank of Nigeria (CBN) in the early 2000s came up with SMEs financial inclusion programme emanating from the findings that increase in poor economic activities, fall in SMEs output and the collapse of SMEs is a direct outcome of financial exclusion of most SMEs investors in Nigeria (Babajide, Adegbuyoye & Omanghanlen, 2015; SMEDAN, 2018).

Empirically, the studies of Hasan, Raymar, and Song (2015) and Adelekan, Eze and Majekodunmi (2019) found that information symmetric has a positive and significant effect on SMEs output and overall
performance. On the other hands, Arachchi (2018) empirically established that Information asymmetry leads to the adverse selection and moral hazard. Not only it will make a large number of SMEs which have good potential of growth and have no access to loans but also cause banks and other financing institutions reluctant to lend to SMEs. Furthermore, they established that lenders such as banks and other financial institutes are restricted to grant credit facilities due to the asymmetry of information. Lenders are exposed to a huge risk in funding while the entrepreneurs manipulate financial figures and provide false information. All these lead to adverse selection and moral hazard occurring immense contractions in the industry.

Also, Simon, Stachel, and Covin (2011) found a positive relationship between information asymmetry and SME growth and output, Fowokan (2011), Okafor and Ogiedu (2011), Eke, Onafalujo and Akinlabi (2011), and Modugu and Erargbhe (2013) examined the implications of financial knowledge on performance of SMEs and found positive effects between information asymmetry on SME output. Obamuyi (2007) state some standard criteria to assess the creditworthiness of borrowers as follows: financial strength, financial information, profitability, network, track record, management quality, relations and payment records with other banks, business prospects, business risks and collateral securities. All the above criteria cannot be good assessments without adequate accounting. It is because of the deficiency in the record keeping of SMEs that compels the banks to insist on a collateral as a "must" for SMEs. Similarly, Adetula and Owolabi (2014), Ojeka (2011), and Agarwal (2007) carried out a study on the effect of a mandatory financial literacy programme on output of urban female microfinance customers in Indian and they found a significant connection between financial knowledge and SME performance through increased output. In the same vein, Tustin (2010) evaluated the role of a financial information in Limpopo province (South Africa), and found self-reported effects of financial information on SME performance. Landerretche and Martínez (2012) similarly found that financial information increases output and capacity of SMEs. Jin and Zhang (2019) empirically indicated that credit rationing in SMEs is the result of the rational choice by banks for the purpose of profit maximisation, thus affecting SMEs overall performance.

2.1.5 Theoretical Framework

The theory of financial intermediation was developed in 1960 by Gurley and Shaw. This theory is founded on the agency theory and the informational asymmetry theory. They argued that, the existence of financial intermediaries is explained by the existence of the following categories of factors: high cost of transaction, lack of complete information in useful time; and the method of regulation. The theory describes the process where surplus units (savers) give funds, that is, through deposits, to intermediaries who include financial institutions such as banks, credit unions, mutual funds and insurance companies) who in return channel out the funds to deficit units (spenders or borrowers or SMEs) (Andries, 2009).

The financial intermediation theory explains the role of commercial banks in intermediating funds through business credit availability to owners of SMEs as a social and profitable venture and hence stability. SMEs are categorised as risky borrowers by financial institutions and therefore meeting the lenders requirements has become a challenge for the SMEs to access fund from financial institutions and if they do it is at a very high transaction rate. Due to the constraints of fund the SMEs are not able to invest in new improved asset for the development and innovation of new products, the SMEs would not fully utilise their assets when they break down leading to a limitation of their maintenance, this would lead to a low revenue, stunted SMEs growth, reduced market share and also a low profitability. When there is a healthy financial intermediation SMEs would grow and also makes profits which would lead to economic growth (Andries, 2009; Muriithi, 2017).

III. Methodology

This study adopted cross-sectional survey research design to investigate the effect of business credit availability measures (information asymmetry, bank density, and credit rationing) on SMEs growth of selected small and medium enterprises in Southwest, Nigeria. The population for the study is twenty-six thousand, seven hundred and forty-four (26,744) registered SMEs across states such as Lagos State, Ogun State, Oyo State, Osun State, Ekiti State and Ondo State in Southwest, Nigeria (SMEDAN Reports, 2013). The study employed multistage sampling technique and multiple regression method of analysis through Partial Least Squares Structural Equation Modelling (PLS-SEM) for model analysis and hypothesis testing. The breakdown of the population per each State is represented in Table 1 while Table 2 showed proportional distribution of questionnaire by states in Southwest, Nigeria.
Effect of Business Credit Availability on SMES Growth of Selected Small and Medium Enterprises

Table 1: Number of Registered SMEs in Southwest Nigeria

<table>
<thead>
<tr>
<th>STATE</th>
<th>Registered Small Enterprises in Southwest Nigeria</th>
<th>Registered Medium Enterprises in Southwest Nigeria</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ekiti</td>
<td>903</td>
<td>126</td>
<td>1029</td>
</tr>
<tr>
<td>Lagos</td>
<td>11044</td>
<td>619</td>
<td>11663</td>
</tr>
<tr>
<td>Ogun</td>
<td>1690</td>
<td>104</td>
<td>1794</td>
</tr>
<tr>
<td>Ondo</td>
<td>1805</td>
<td>194</td>
<td>1999</td>
</tr>
<tr>
<td>Osun</td>
<td>2247</td>
<td>25</td>
<td>2272</td>
</tr>
<tr>
<td>Oyo</td>
<td>7468</td>
<td>519</td>
<td>7987</td>
</tr>
<tr>
<td>Total</td>
<td>25053</td>
<td>1691</td>
<td>26744</td>
</tr>
</tbody>
</table>

Source: SMEDAN’s Report (2013)

Table 2: Distribution of Questionnaire per State (Proportionate Sampling)

<table>
<thead>
<tr>
<th>STATE</th>
<th>Registered Small and Medium Enterprises in Southwest Nigeria</th>
<th>No. of Questionnaires</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ekiti</td>
<td>1029</td>
<td>32</td>
</tr>
<tr>
<td>Lagos</td>
<td>11663</td>
<td>368</td>
</tr>
<tr>
<td>Ogun</td>
<td>1794</td>
<td>57</td>
</tr>
<tr>
<td>Ondo</td>
<td>1999</td>
<td>63</td>
</tr>
<tr>
<td>Osun</td>
<td>2272</td>
<td>72</td>
</tr>
<tr>
<td>Oyo</td>
<td>7987</td>
<td>251</td>
</tr>
<tr>
<td>Total</td>
<td>26744</td>
<td>843</td>
</tr>
</tbody>
</table>

Source: Researcher’s Computation (2019)

Sample Size Determination

The sample size was determined from the total population of registered SMEs Southwest Nigeria totalling 26,744. The sample size which is the number of representative elements from the population of study will be determined using the Cochran’s sample size formula (1977).

\[ n = \frac{NZ^2pq}{d^2(N-1)+Z^2pq} \]

Where:
- \( n \) = Sample size
- \( N \) = Population size
- \( Z \) = Value for the selected alpha level e.g. 2.58 for (0.25 each tail) a 99.5% desired confidence level.
- \( P \) = Degree of variability (0.5)
- \( q = 1 - p \)
- \( d \) = Degree of accuracy (0.05)
- \( \alpha \) = level of significance (5%)

A total number of registered SMEs with SMEDAN as of May, 2013 is 26,744 and the total number of samples of SMEs (n) will be determined by using the above formula.

\[ n = \frac{26,744 (2.58)^2 \times 0.5 \times 0.5}{(0.05)^2 (26,744 -1) + (2.58)^2 (0.5 \times 0.5)} \]

\[ n = \frac{26,744 \times 6.6564 \times 0.25}{0.0025 \times 26,743 + 1.6641} \]

\[ n = \frac{44504.69}{68.5216} \]

\[ n = 649 \]

Model Specification

In this study, SMEs growth is the dependent variable while Business Credit Availability (BCA) measures (Information Asymmetry, Bank Density, and Credit Rationing) are the independent variables. Business Credit Availability (BCA) ; BCA = (Information Asymmetry(INA), Bank Density (BKD) and Credit Rationing (CRR)).

The function relationship and regression equations to test the specific hypotheses formulated are:

\[ Y = f(x_{1a}, x_{1b}, x_{1c}) \]

\[ Y = \beta_0 + \beta_1x_{1a} + \beta_2x_{1b} + \beta_3x_{1c} + e_i \]

\[ SG = \beta_0 + \beta_1INA_{ai} + \beta_2BKD_{bi} + \beta_3CRR_{ci} + e_i \] ................. eq. (i)

Where;
Effect of Business Credit Availability on SMES Growth of Selected Small and Medium Enterprises:.

X = Business Credit Availability (BCA)  
\[ x_{1a} = \text{Information Asymmetry (INA)} \]  
\[ x_{1b} = \text{Bank Density (BKD)} \]  
\[ x_{1c} = \text{Credit Rationing (CRR)} \]  
Y = SMES Growth (SG)  
\[ \beta_0 = \text{Constant term} \]  
\[ \beta_i - \beta_j = \text{Beta coefficient of variable i the measure of the change in Y associated with the change in X measures (Information Asymmetry, Bank Density, and Credit Rationing).} \]

### Validity and Reliability Results

Confirmatory factor analysis was estimated on multiple criteria construct reliability, convergent and discriminant validity. To satisfy the requirement of discriminant validity of the measurement model, this study followed the criterion suggested by Fornell and Larcker (1981). The average variance extracted (AVE) and composite reliability (CR) were used to determine the convergent and discriminant validity of the construct validity respectively. The AVE should be equal or more than 0.5 and composite reliability should be 0.7 or above (Hair & Lukas, 2014). The results are presented in Table 3.

#### Table 3: KMO and Bartlett test for each variable in the research instrument

<table>
<thead>
<tr>
<th>S/N</th>
<th>Variables</th>
<th>KMO Measure of Sampling Adequacy</th>
<th>Bartlett test of Sphericity</th>
<th>AVE</th>
<th>CR</th>
<th>Cronbach’s Alpha Coefficients</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Information asymmetry</td>
<td>0.823</td>
<td>724.005 (0.000)</td>
<td>0.653</td>
<td>0.762</td>
<td>0.721</td>
<td>Accepted</td>
</tr>
<tr>
<td>2</td>
<td>Bank density</td>
<td>0.897</td>
<td>642.236 (0.000)</td>
<td>0.501</td>
<td>0.684</td>
<td>0.914</td>
<td>Accepted</td>
</tr>
<tr>
<td>3</td>
<td>Credit rationing</td>
<td>0.751</td>
<td>698.714 (0.000)</td>
<td>0.665</td>
<td>0.765</td>
<td>0.798</td>
<td>Accepted</td>
</tr>
<tr>
<td>4</td>
<td>SMES growth</td>
<td>0.774</td>
<td>869.775 (0.000)</td>
<td>0.641</td>
<td>0.601</td>
<td>0.896</td>
<td>Accepted</td>
</tr>
</tbody>
</table>

Source: Researcher’s Computation, 2020

From Table 3, the results of Kaiser-Meyer-Olkin measures (KMO) for all the variables were found to be greater than 0.5 and not above 1, hence acceptable indices. On the other side, the Bartlett’s Test of Sphericity had p-values = 0.000 for all the variables which are less than 0.05. The results for unidimensional test revealed that all factors were unidimensional and thereafter confirmatory factor analysis proceeded. The Average Variance Extracted (AVE) for the latent variables were greater than 0.5 and composite reliability greater than 0.7. Both AVE and composite reliability showed that convergent and discriminant validity of the construct are acceptable, hence the instrument is valid.

### IV. Results, Interpretation and Discussion of Findings

#### Table 4: Results of Hypothesis: Effect of Business credit availability on Growth of selected Small and Medium Enterprises in Southwest, Nigeria

<table>
<thead>
<tr>
<th>Hypothesis/Path</th>
<th>Beta</th>
<th>Standard Error</th>
<th>T Statistic</th>
<th>R²</th>
<th>Adj. R²</th>
<th>P Values</th>
<th>Decisions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bank Density -&gt; SMES Growth</td>
<td>0.290</td>
<td>0.047</td>
<td>6.205</td>
<td>0.374</td>
<td>0.372</td>
<td>0.001</td>
<td>Supported</td>
</tr>
<tr>
<td>Credit Rationing -&gt; SMES Growth</td>
<td>0.253</td>
<td>0.049</td>
<td>5.146</td>
<td>0.374</td>
<td>0.372</td>
<td>0.001</td>
<td>Supported</td>
</tr>
<tr>
<td>Information Asymmetry -&gt; SMES Growth</td>
<td>0.141</td>
<td>0.050</td>
<td>2.805</td>
<td>0.374</td>
<td>0.372</td>
<td>0.001</td>
<td>Supported</td>
</tr>
</tbody>
</table>

Source: Researcher’s Field Survey Results (2020)

Table 4 portrays the multiple regression analysis for the effect of business credit availability of sub-variables (information asymmetry, bank density, and credit rationing) on the growth of selected small and medium enterprises in Southwest, Nigeria. The results presented in the Table 4, reveal that business credit availability of sub-variables (information asymmetry, bank density, and credit rationing) explained 37.4% of the variances in growth of selected small and medium enterprises in Southwest, Nigeria. The result indicates that putting all the constructs together has the tendency of influencing 37.4% change in the growth of selected small and medium enterprises. The Adjusted R square of 0.372 indicates that business credit availability of sub-variables without the constant explains 37.2% variation in the growth of selected small and medium enterprises. The remaining 62.8% variation in growth of selected small and medium enterprises is explained by other variables which are not in this model. This indicated that the structural path model has a moderate and robust predictive accuracy. From the structural model, Goodness of Fit: SRMR = 0.072; d_ULS = 1.576; d_G = 0.354; Chi-Square = 1.568.721; NFI = 0.695. Furthermore, the results reveal that bank density (\( \beta = 0.290, t = 6.205, p = 0.001 \)), credit rationing (\( \beta = 0.253, t = 5.146, p = 0.001 \)), and information asymmetry (\( \beta = 0.141, t = 2.805, p = 0.001 \)).

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0.001) have positive and significant effect on the growth of selected small and medium enterprises in Southwest, Nigeria. The p-value signifies that the model using the predictors did a good job of predicting the outcome of the variables. Thus, the regression equation from findings is expressed as:

\[ \text{SMEGR} = \beta_0 + 0.290 \text{BANK\_DE} + 0.253 \text{CRED\_RA} + 0.141 \text{INFO\_AS} \quad \text{eq. ii} \]

Where

- \( \text{SME\_GR} = \text{SMEs Growth} \)
- \( \text{BANK\_DE} = \text{Bank Density} \)
- \( \text{CRED\_RA} = \text{Credit Rationing} \)
- \( \text{INFO\_AS} = \text{Information Asymmetry} \)

The regression model above revealed that unit change in bank density would cause 0.290 increase in the growth of selected small and medium enterprises. Also, unit change or increase in bank density would also cause 0.253 factor change in growth of selected small and medium enterprises, and unit change in credit rationing would lead to 0.253 increase in the growth of selected small and medium enterprises. The study found out that the major business credit availability sub-variables that influence growth of selected small and medium enterprises in Southwest, Nigeria was bank density followed by credit rationing and information asymmetry. Since the t-values for the variables were greater than 1.96 standard value at 5% significant level as the decision rule for this study with their p-values (P <0.05), the null hypothesis which states that business credit availability of sub-variables (information asymmetry, bank density, and credit rationing) have no significant effect on the growth of selected small and medium enterprises in Southwest, Nigeria is hereby rejected. It is important to determine the relevance and the extent to which the examined path changes in explaining the power of the independent variable. As the path coefficient cannot provide any information about the effect size of the dependent on independent variable.

Table 5: Effect Size (F\(^2\)) of Bank Density, Credit Rationing and Information Asymmetry on SMEs growth

<table>
<thead>
<tr>
<th>Hypothesis/Path</th>
<th>F-Square (F(^2))</th>
<th>Effect Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bank Density -&gt; SMEs Growth</td>
<td>0.054</td>
<td>Small</td>
</tr>
<tr>
<td>Credit Rationing -&gt; SMEs Growth</td>
<td>0.046</td>
<td>Small</td>
</tr>
<tr>
<td>Information Asymmetry -&gt; SMEs Growth</td>
<td>0.015</td>
<td>Not Significant</td>
</tr>
</tbody>
</table>

**Source:** Researcher’s Field Survey Results (2020)

As regards effect size, Cohen \( f^2 \) value was used in which the rule of thumb stated that \( f^2 \) values between 0.020 and 0.150, between 1.50 and 0.350, and exceeding 0.350 represent small, medium and large effect respectively of the dependent variable on independent variable (Hair & Lukas, 2014). As summarised in Table 5, the predictive effect size of Bank Density and Credit Rationing on SMEs growth were small (small effect size) and significant. In contrast, the effect size of Information Asymmetry was 0.015 which was below the minimum threshold. This result indicates that Bank Density and Credit Rationing effect are the factors that influence the growth of SMEs while the Information Asymmetry effect in affecting SMEs growth is negligible. However, it should be noted that other relationship with no effect size is as well as important statistically with other large effect size. This was argued by Hair and Lukas (2014) who affirmed that all effect sizes have their own peculiarity in influencing the 1 dependent variable and, therefore, it should be considered. The path coefficients, indicator loadings, the R\(^2\) and t-values are summarized in Figure 4a& 4b.
Effect of Business Credit Availability on SMES Growth of Selected Small and Medium Enterprises...

Figure 1a & b: Path Coefficients for bank, density, credit rationing, information asymmetry and SMEs Growth

Source: Researcher’s Field Survey Results (2020)
V. Discussions

The hypothesis two of this study focused on effect of business credit availability of sub-variables (information asymmetry, bank density, and credit rationing) on the growth of selected small and medium enterprises in Southwest, Nigeria. The hypothesis was tested using PLS-SEM path analysis. The finding of this study found that business credit availability of sub-variables (information asymmetry, bank density, and credit rationing) has significant effect on the growth of selected small and medium enterprises in Southwest, Nigeria. Business credit availability concept inferred that business credit availability is needed to all SMEs businesses which allow SMEs to utilize productive assets to enhance productivity and economy of scale (Kira& He, 2012; Okello, Ntayi, Munene, & Malinga, 2017). Similarly, Beck and Demirguc-Kunt (2016) and Dalberg’s (2011) conceptually stated that SMEs accessibility to finance encourages market entry, facilitates growth, reduce risks, fosters innovation and entrepreneurial activity. Okello, Ntayi, Munene, and Malinga (2017) further conceptually argued that access to finance by SMEs is the most important factor in determining the survival and growth of SMEs.

Empirically, Beck and Demirguc-Kunt (2016) and Abosedeet et al. (2018) found that SMEs bank financing has positive and significant effect on SMEs growth and overall performance. Obadeyiand Okhiria (2015), and Price, Stoica, and Boncella (2013) found a positive relationship between information asymmetry, bank credit and SME growth. Fowokan (2011), Okafor and Ogiedu (2011), Eke, Onafalujo and Akinlabi (2011), Modugu and Eragbhe (2013) empirically established that bank SMEs credit financing enhance SME output as well as growth. Also, Obamuyi (2007), Ojeka and Mukoro (2011), Agarwal (2007) found a significance connection between financial knowledge and SME performance through increased output. On the other hands, scanty study like Arachchi (2018) empirically established that Information asymmetry lead to adverse effect on SMEs growth. Furthermore, they empirically established that lenders such as banks and other financial institutes were restricted to grant credit facilities due to asymmetry of information, thus reducing SMEs growth. This indicated that majority of past empirical studies established that bank credit to SMEs significantly affect SMEs growth, therefore these past studies’ supported the study findings of this current that business credit availability measures significantly affect SMEs growth. Based on these majority findings, this study rejected the null hypothesis that; business credit availability of sub-variables (information asymmetry, bank density, and credit rationing) has no significant effect on the growth of selected small and medium enterprises in Southwest, Nigeria.

Considering the theoretical support for this study, financial intermediation theory supported the findings of this present study as the theory explained that commercial banks play intermediary function in terms of making loan available to SMEs owners in order to run and expand business activities, thus enhancing SMEs growth. Financial intermediation theory viewed SMEs as deficit or end users of credit so as to expand their business activities. Based on the financial intermediation theoretical explanation that supports the finding of this study, business credit availability significantly affects SMEs growth in Southwest, Nigeria. With these conceptual and past empirical findings support that bank credit significantly affect SMEs growth. Therefore, this study rejected the null hypothesis that; business credit availability of sub-variables (information asymmetry, bank density, and credit rationing) has no significant effect on the growth of selected small and medium enterprises in Southwest, Nigeria.

VI. Conclusion and Recommendations

Considering the empirical findings, this study concluded that business credit availability of sub-variables (information asymmetry, bank density, and credit rationing) has significant effect on SMEs growth of selected small and medium enterprises in Southwest, Nigeria. Since the study established that business credit availability measures significantly determine SMEs growth of selected small and medium enterprises in Southwest, Nigeria, it is therefore recommended that SMEs owners should focus on and understand deposit money banks strategies such as information asymmetry, bank density and credit rationing so as to continuously record growth in their business activities.

Also, the study recommends that SMEs in Nigeria should move closer to deposit money banks in order to have full knowledge and information on loan requirement, thus reducing the level of information asymmetry between SMEs owners and banks. Beside, Central bank of Nigeria should enact policies that will legally establish Small and Medium Scale Enterprise Bank; as this will enhance credit or loan supply and monitoring to SMEs, thus increasing SMEs profitability and productivity in relation to contributing to the economic activities growth of Nigeria.
References


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