Business Credit Affordability and Revenue Growth of Small and Medium Scale Enterprises: Evidence from Southwest, Nigeria

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Abstract: Whereas business credit is given to increase the performance of small and medium enterprises (SMEs), the beneficiary SMEs in Southwest Nigeria still displayed stunted revenue growth. A high failure rate in SMEs is still reported despite their increased access to business credit. This study examined the effect of business credit affordability (interest rates, collateral requirement, and loan administration) on revenue growth of small and medium scale enterprises in Southwest, Nigeria. The study adopted a cross-sectional survey research design. Data were obtained through primary source using self-developed structured and validated questionnaire. The population of the study comprised 26,744 registered Small and Medium Scale Enterprises operating in Southwest, Nigeria. Cochran’s sample size formula was employed to determine sample size of 843 SME owners/managers. Partial Least Square Structural Equation Modeling (PLS-SEM) through Smart PLS 3.2.8 was employed to analyze and test hypothesis. The path analysis and bootstrapping results showed that collateral requirement and loan administration have positive and significant effect on revenue growth of small and medium enterprises in Southwest, Nigeria. The study concluded that collateral requirement, and loan administration are major predictors of revenue growth, while interest rate has no significant effect on revenue growth. The study recommended that Central Bank of Nigeria should consider revising their policy on interest rate charged to single digit, credit appraisal techniques, transaction costs, debt collection process and limitation on the amount of loan granted that accommodate SMEs financial needs.

Keywords: Business credit affordability, Collateral requirements, Interest rates, Loan administration, Revenue growth

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1. Introduction

The performance 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. Small and medium enterprises are labour intensive as much as they are capital saving business ventures. SMEs are responsible for making people self-reliant and generating billions of new jobs globally. Despite these immense contributions of SMEs, small and medium scale businesses have been beleaguered with incessant poor performance reflected in stunted revenue growth and low sales. SMEs are vulnerable and very few manage to survive most especially due to the problems of credit affordability.

The issue of SMEs performance has been trending in the world over, Africa not an exception requires adequate availability of business credit. However, lack of business credit is universally recognized problem facing SMEs performance especially 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). This is evident in a report by the Enterprise Survey of the World Bank in a period of ten years covering 100 countries, found access to credit as the most important constraint hindering performance of SMEs. Compared to other parts of the world where the problem was moderate while in Africa’s credit systems are not only small, shallow, costly and unaffordable, but they have very limited outreach thereby only reaching a small percentage of the total population which forces SMEs to do their own self-financing or depend on colleagues and friends to provide capital for their businesses.

In Nigeria, SMEs represent about 90 per cent of firms in the industrial sector on numerical basis, and account for about 70 per cent of aggregate employment per annum in the face of a roll-a-coaster nature in the last 59 years of nationhood partly due to her existence on the periphery of the global economy (Ekpo, 2017). However, in spite of these dominance and significant contribution of SMEs, they perform below expectation as low as one percent (1%) to GDP, in contrast to countries like Indonesia, Thailand, and India where SMEs contribute almost 40 percent (Entrepreneurship Outlook, 2019). As submitted by Ekpo (2017) SMEs has been characterized by declining performance which was more prominent from March 2016, when the economy was in a state of stagflation (economic downturn). The Vision 2020 committee on SMEs in Nigeria (Aminu, 2018;
Taiwo, 2016) noted inadequacy of capital as a factor causing problem for successful operations of SMEs. The situation is seeming to be persistent to date and when some SMEs meet the requirements of accessing fund from deposit money banks, the attached terms and conditions may not be affordable for the SMEs owners. Adequate financing and credit affordability are necessary to help SMEs set up and expand their operations, develop new products, and invest in new staff or production facilities.

The study by Adefulu, Asikhia, Kabuoh and Oliseh (2019) revealed that SMEs owners in Southwest of Nigeria find it very difficult to access finance from financial institutions due to their high comparative interest rates, demand for collateral and loan guarantees. The researchers noted that banks cite difficulties in issuing funds to SMEs operators; as most of the SMEs could not afford loan cost. They argue that the cost of administering small loans to SMEs only reduce their profits. Imoughelu and Ismaila (2014) have identified formal financing problem such as cost of capital risk, inappropriate terms on bank loans, and shortage of equity capital as impediments to the performance of SMEs in Nigeria. Central Bank of Nigeria (2019) report shows that 39% of small scale and 37% of medium scale firms in Nigeria are financially constrained due to unaffordability of loan administration, interest rate and costs. The contribution of SMEs to the GDP has remained well below 5%. Deposit Money banks loan to SMEs as a percentage of total credits decreased from 48.79% in 1992 to 0.15% in 2010. Factors affecting SMEs performance and sustainability in Nigeria include insufficient access to financial resources, and high interest rates among others. The interest rate is between 20 and 25 percent with banks, preferring to give lower rates to blue chips. This has led to the high rates of failure among SMEs in the country.

In Nigeria, government has come up with various policies aimed at investing in and boosting the Small and medium scale enterprises to generate employment and reduce poverty, but there has been the challenge of poor implementation. It is worrisome to note that Nigeria has not experienced massive industrial development via SMEs, despite, the policy initiatives and all manners of support and programs that successive governments have pursued to ensure that SMEs perform, but financing problems of credit unaffordability keep reoccurring. According to the Small and Medium Enterprises Development Agency of Nigeria (SMEDAN), 80% of SMEs die before their fifth anniversary in Nigeria. This has affected the performance of SMEs in terms of change in number of employees and annual revenue. According to the Small and Medium Enterprises Development Agency of Nigeria (SMEDAN), 80% of SMEs die before their fifth anniversary in Nigeria. This has affected the performance of SMEs in terms of change in number of employees and annual sales revenue. In congruence, Egwakhe and Odumesi (2019) highlighted that in Nigeria, despite the important roles of the SMEs to the nations of the world its performance suffered due to lack of business credit availability. Consequently, the SMEs continue to face the challenge of inadequate funding which weaken their capital base, productivity, size, and revenue growth.

Studies have been conducted to investigate the effect of bank interest rate reforms on economic growth in Nigeria (Acha&Acha, 2011; Nkemakolam, 2017; Obamuyi&Olorunfemi, 2011). The studies have used different data sets, techniques for data analysis, and years covered. However, there appears to be different results generated regarding the phenomenon under study. Further, few studies on the response of the SMEs performance to interest rate of deposit money banks in Nigeria has created a gap in knowledge, and most studies examine its effect vis-à-vis the overall economy. Whereas business credit is given to increase the performance of small and medium enterprises (SMEs), the beneficiary SMEs in Southwest Nigeria still displayed stunted revenue growth. A high failure rate in SMEs is still reported despite their increase access to business credit, inadequate funding has been a serious impediment to SMEs’ financing, growth and overall performance (Beck &Demirguc-Kunt, 2016; Belke, 2013; Rossi, 2014). It has been identified that the rate of interest is high in Nigeria (Olatunji & Ibukun-Falayi, 2018). The problem of lack of access to resources by SMEs are also attributed to the effect of lack of information transparency and SMEs unaffordability of credit had decline SMEs access to credit and thus reduced SMEs economic contribution to gross domestic product and SMEs growth (Adeyelure, Kalema, & Bwalwa, 2018). The lack of information transparency on the part of SMEs and inappropriate credit rationing creates difficulty for external agents to identify their financial circumstances (Adeyelureet al., 2018). The information distortion, which characterizes the relationship between banks and SMEs, leads to exposure to credit risks which denied SMEs access to bank credit and higher interest rate, consequently reduced SMEs performance (Akingunola, Olowofela, &Yunusa, 2018). Hence, SMEs do not have better access to funds and unaffordable to bear the cost of the credit. This has made the growth of SMEs in Nigeria largely uncoordinated, continue declined and SMEs contribution to gross domestic product relatively meagre. It has been affirmed that one of the issues linked to accessing financing is to determine whether financial services are available, affordable and in what quantity.

The provision of business finance is central to the success of small and medium enterprises. Several studies have examined the impact of bank credits to SMEs and its effect on performance of SMEs; but these studies end up with conflicting results and conclusions. The studies from Omonigho (2017), Hedwigis (2017), Iloh and Chioke (2015) and Akingunola (2011) found a positive and significant relationship between bank credit
to SMEs and profitability while Benson (2017), and Okey (2016), found insignificant relationship between bank credit to SMEs and revenue growth; Richard (2016), Oluwarotimi and Adamu (2017) found a negative relationship between bank credit to SMEs and SMEs performance. Most of the existing studies often focus on deposit money banks’ credit availability and SMEs performance in Nigeria (Dada, 2014; Egwuake&Odumesi, 2019) but most of these studies failed to investigate bank credit affordability by SMEs and its impact on revenue growth of SMEs particularly in Southwest Nigeria. It is against this backdrop that the study investigated whether interest rates, collateral requirement, and loan administration affected the revenue growth of selected small and medium scale enterprises in Nigeria using Southwest as a research context. The objective of this paper is to determine the effect of business credit affordability sub-variables (interest rates, collateral requirement, and loan administration) on revenue growth of selected small and medium scale enterprises in Southwest, Nigeria.

II. Literature Review

2.1 Business Credit Affordability

Different definitions of affordability have been proposed for consumer credit in general, but they all focus on the ability to repay the loan without financial distress. They vary over whether they consider only the current situation of the borrower or seek also to forecast any future changes in the borrower’s finances. According to Anderson (2007), affordability is the ability to do something without causing financial distress, or other undesirable consequences. Experian (2014) defined affordability is the measure of a customer’s financial capacity to fund new and outstanding debts, now and in the future. Junior (2015) view bank credit affordability as the assessment of a customer’s financial capabilities to fund new and outstanding loan now and in the future. Affordability focuses on the lack of repayment resulting from the customer’s inability to repay. Furthermore, when assessing affordability, it should be checked whether the customer can meet the credit commitment ‘in a sustainable manner’ (in particular, without difficulties in the context of their other commitments and normal expenditure). Anderson (2007) described affordability assessment as an evaluation of a borrower’s ability to repay business credit or loan. The Office of Fair Trading (2011) defined affordability assessment as a borrower-focused test which involves a creditor assessing a borrower’s ability to undertake a specific credit commitment, or specific additional credit commitment, in a sustainable manner, without the borrower incurring (further) financial difficulties and/or experiencing adverse consequences.

The Financial Services Authority (2010) suggested that a (business credit) loan can be deemed affordable if its level and terms allow the consumer (SMEs) to meet current and future payment obligations in full, without recourse to further debt relief or rescheduling, avoiding accumulation of arrears while allowing an acceptable level of consumption. According to Junior (2015), bank credit affordability is indispensable requirements for all lending institutions who wish to widen credit responsibly as well as reducing exposure to risk. As lending institutions trying to balance growth with risk, some customers are faced with insufficient disposable incomes, the current economic situation has made it necessary for lending institutions to employ a better credit process. Failure to implement a proper credit management process could put pressure on customers and lenders at a time when the economic climate not improving (Junior, 2015).

In this study, the researchers define business credit affordability as SMEs financial and non-financial resources capability to meet up with deposit money bank requirements or conditions when sourcing for business loan. This is determined by interest rates, collateral requirement, and loan administration. These factors are reviewed in the subsequent sections.

2.1.1 Interest Rate

From an economic perspective, interest can be viewed as either the compensation received for deferring consumption, e.g., putting money in a savings account rather than spending it, or the cost of consuming when resources are not available, e.g., using a credit card to make a purchase rather than first saving the money (Obasan, 2012). At any given time, a person with money has two choices; one is to spend the money immediately and the second is to save it for the future. Likewise, a person without money has two choices; one is to borrow money from someone to buy something and the second is to decide to postpone the purchase (Asuguo, 2012). The decision whether to spend, save, borrow, or refrain from spending can be a complex one. Some people require a greater incentive to save, i.e., the reward for deferring consumption needs to be greater, while others require a greater incentive to borrow, i.e., the cost of borrowing needs to be lower (Bean, 2017). Sunday (2012) see interest rate as the reward that accrues to people who provide the fund with which capital goods are bought. In the area of the financial sector of the economy, interest rate is a common phenomenon, described as amount charged which is expressed as a percentage of principal, by a lender to a borrower for the use of assets (Crowley, 2007). Interest rates typically noted on an annual basis, known as the annual percentage rate (APR). The assets borrowed could include, cash, consumer goods, large assets, such as a vehicle or building. Interest is essentially a rental, or leasing charge to the borrower, for the asset's use. When
the borrower is a low-risk party, such is usually charged a low interest rate; if the borrower is considered high risk, the interest rate that they are charged will be higher (Ejikeme, 2013).

Interest rates as a cost of the loan have a significant effect on a company's growth plans. They do not only affect loan payments, but they also have an impact on an enterprise funding (Ogolla, 2013). High interest rates reduce business earnings which ultimately hinders the business capacity to grow (Ndungu, 2016). High interest rates also affect a business cash flow in that one has to set aside more money to repay the loans. This in turn reduces its disposable income hence affecting ability to pay its other creditors.

2.1.2 Collateral Requirement

Collateral refers to an asset pledged by a borrower to secure a loan from the lender (Bagaka&Memba, 2015). A lender gets a fall back in case of default where they can dispose the asset to recover their money. Kung'u (2011) noted that secured loans are seen to have a low risk of default hence they are charged a lower interest. Most SMEs' do not have tangible assets that they can use to secure their loans hence their borrowing is limited. According to Nhung (2018), collateral serves to reduce asymmetric information and moral hazard in asset-based lending. Ochola (2013) defined collateral as a defined asset issued by the borrower to the lender, in a show of commitment towards repaying the loan advanced. This definition aligned with that of Central Bank of Kenya (2005) which defines collateral as the ability of the borrower to pledge specific assets to secure a loan. According to the provisions of Central Bank, all loans offered by banks must be secured to protect the borrower's funds. The value of the security should be ascertained, and title documents charged to the loan which should not exceed 2/3 of the value of the securities. It is a borrower's pledge of specific property to a lender, to secure repayment of a loan. If the other fails to honor his repayments, the collateral is liquidated, and the value of the loan recovered from such proceeds.

Collateral requirements serve as an incentive mechanism because higher collateral enforces a selection of less risky projects (Bester, 2007). This is due to the fact that a lower-risk borrower has a greater incentive to pledge collateral than a high-risk borrower, because of his lower probability of failure and loss of collateral. The willingness of the entrepreneur to pledge collateral positively influences the quality of credit request as perceived by the bank. Borrowers signal the real value and belief in the quality of the project to the bank. Thus, low risk borrowers can signal their status through the provision of collateral, even though literature identifies collateral as a key, contracting tool employed by lenders to reduce the problem associated with asymmetrical information.

Banks use of collateral as observed by Greenbaum and Thakor (1995) allows for a reduction of the loan loss for the bank in the event of the default of the loan. Indeed, it provides to the bank prior title on specific assets. Second, collateral helps to solve the problem of adverse selection borne by the bank when lending, as it constitutes a signalling instrument providing some valuable information to the bank. Indeed, collateral helps the bank to obtain private information owned by the borrower, as high-quality borrowers are more induced to accept to provide collateral in compensation of a low loan rate than low quality borrowers. Third, collateral helps to solve the problem of moral hazard after the loan is granted: namely, the borrower is not inclined to provide the optimal effort or the optimal level of investment.

2.1.3 Loan Administration

Loan administration has been defined as the measures undertaken to make sure that the loan disbursed are recovered according to policy set by a financial institution (Njogu, 2017). Loan administration also refers to the means by which financial institutions ensure customers receive credit in the best way possible for their economic needs and make prompt payments as per the loan agreement (Njogu, 2017). According to Huseyin, (2011) loan administration is an aggregate of all methods procedures employed by a firm to ensure effective management of loaned funds to enhance the best performance is achieved and eliminate delinquency in these assets. Loan management is an aspect that involves credit classification, analyzing, ranking, and credit reporting. Nelson (2002) pointed out that loan administration means the policies adopted by an entity to manage its credit sales. Loan administration influences the success or failure of financial institutions (Nzotta, 2004). Failure of deposit taking banks is influenced by the quality of loan and the credit policy followed and also the quantity of the risky assets thus credit management provides leading indicator of the quality of loan portfolio.

2.1.4 Revenue Growth

Growth for a business is essentially expansion, making the firm bigger, increasing its market and ultimately making the company more profitable. Measuring growth is possible by looking at several pertinent statistics, such as overall sales, numbers of staff, market share and turnover. The interrelation of profitability and growth is illustrated by the fact that a basic operating principle is that growth can best be evaluated by examining profit and total sales. It is important that all firms must remember the need to maintain a balance between profitability and growth; it is crucial for any business to grow as well as be profitable in order to sustain and stay relevant in the marketplace (Chowdhry, 2016). Fitzsimmons, Steffens, and Douglas (2005) restated the belief that the use of growth as a measure of firm performance is based on the understanding that growth is an...
antecedent to the attainment of sustainable competitive advantage. The belief is that firms that are undergoing growth phases have higher rates of survival and they enjoy the benefits associated with economies of scale which in turn will affect their profitability (Fitzsimmons, et. al. 2005). Though present profitability of a company may be good, opportunities for growth should always be explored, since this offers opportunities for greater overall profitability and keeps or moves the firm into the line of sight of analysts and potential or current investors. Profitability and growth go hand in hand with regard to business success.

2.2 Theoretical Review

2.2.1 Resource Based View

Resources Base View (RBV) was originated by Barney (1986) and Wernerfelt (1984) based on the fundamental ideas of Penrose (1959) in the theory of the growth of the firm and Rubin (1973) in the theory of the expansion of firms. The theory explains that organizational resources which are valued, rare, and difficult to duplicate and substitute are a source of competitive advantage, which is capable of improving business performance (Barney, 1991). According to Barney (2000), the theory rests on three assumptions: that firms seek to earn above average returns; that resources are asymmetrically distributed across competing firms; and that differences in resources lead to differences in product or service characteristics that result in variations in firm performance. The proponents of the theory stressed the fact that organisation can take advantage of their resources to have a better competitive edge.

The Resource-based theory of entrepreneurship argues that access to resources by founders is an important predictor of opportunity-based entrepreneurship and new venture growth (Alvarez & Busenitz, 2001). This theory stresses the importance of financial, social and human resources (Aldrich, 1999). Thus, access to resources enhances the individual’s ability to detect and act upon discovered opportunities, risk taking and proactiveness (Davidson & Honing, 2003). According to Barney (1991), internal resources of an organization must be valuable, exceptional, unmatched and non-substitutable resources to have a sustainable competitive advantage. This theory argues that entrepreneurs have individual-specific resources that facilitate the recognition of new opportunities and the assembling of new resources for the emerging firm (Alvarez & Busenitz, 2001).

Businesses and firms have in the past relied on the traditional financing mechanism which appeared not to have worked for them. Ahmed (2002) argued that the reason for over reliance to traditional funding by SMEs resulted from lack of exchange and understanding of existing information that exist between lenders and borrowers. Financial organisations have information about credit worthiness and hedge against potential losses, while on the other hand borrowers lack such kind of information. Due to the mismatch of information between lenders and borrowers, SMEs lack of access to finances contributes to their failure since other firms with better resources have competitive advantage. In addition, SMEs without proper resources will fail to satisfy both employees and their customers since they will lack the advantage of better resources. As applied to the study, the RBV provides the conceptual lens to understand how obtaining financial resources may contribute to the business success.

The resource-based view has been criticized because it is static and does not explain how a specific resource can create sustainable competitive advantage while firms do not have enough knowledge about the productivity of each individual asset (Cumberland, 2006). In addition, the concept of firm-specific resources is ambiguous, and it is not easy to operationalize measurement items for them (Knot, 2009). The RBV focuses on the role of resources in creating competitive advantage but does not show the relationship between resources and capabilities (Ismail, Rose, Uli, & Abdullah, 2012). Resource Based theory focuses on resources and capabilities in achieving a competitive advantage, but it does not show how they influence the performance of a business. Also, RBV represents a tautology, and that it therefore cannot be generalized to be a theory (Priem & Butler, 2001).

Among the supporters of RBV was Bacon and Hofer (2003) who contended that three factors are essentials for new venture performance: the entrepreneur, the industry structure, and strategy. Many scholars (Alvarez and Barney, 2002; Barney and Arikan, 2001; Michael, Storey and Thomas, 2002) agreed that RBV theory of competitive advantage requires four characteristics of resources and capabilities as determinants of the sustainability of competitive advantage. These are durability, valuable and rare, ease of imitation, transferability and substitutability (Grant, 2001). A firm’s resource is valuable to the extent that it helps the firm create strategies that capitalize on opportunities and ward off threats from the environment and of competitors. That resource is also rare when it is better than similar resources owned by the competitors of the firm. This theory is relevant to the study because it shows how obtaining financial resources may contribute to the SMEs performance. The application of the RBV may be helpful in letting SMEs identify what strategies needed to obtain financing that could help achieve financial sustainability. Chowdhry (2016) validated the RBV by employing RBV in his study and view firm financial resource as resource that enhanced firm competitive advantage. Similarly, RBV was relevant to study variables i.e business credit availability, business credit affordability and SMEs performance as this study viewed bank credit as resources needed by SMEs to achieve competitive advantage over foreign SMEs imported products.
2.2.2 Loanable Funds Theory

The loanable funds theory was proposed by Swedish economist Knut Wickensell (1851-1926). According to the theory, loanable funds theory, rate of interest is determined by the demand for loanable funds and supply of loanable funds. This theory could be divided into “Demand for Loanable Money and Supply of Loanable Funds. In this regard, this theory is more realistic and broader than the classical theory of interest. Demand for Loanable Funds; loanable funds theory differs from the classical theory in the explanation of demand for loanable funds. According to this theory, demand for loanable funds arises for the following three purposes viz.; Investment, hoarding and dissaving.

The theory assumes that interest rates are determined by supply of loanable funds and demand for credit and that there exists an inverse relationship between the loanable funds and the interest rates. If both the demand and supply of loanable funds change, the resultant rate would depend on the magnitude of movement of the demand and supply of the loanable funds. In other words, the availability of these loanable funds depends on the interest rate that the lenders charge and whether the borrowers can afford the funds at the same interest rate.

The loanable funds theory has been criticized for combining monetary factors with real factors. It is not correct to combine real factors like saving and investment with monetary factors like bank credit and dishoarding without bringing in changes in the level of income. This makes the theory unrealistic. Also, Ross (1976) criticized the theory that it fails to address the reasons why people would prefer to save and invest without necessarily having to deposit money in the banks like the fear of unknown, wealth taxation, delay in accessing the banked money among other factors.

Despite the arguments against this theory, it is still found to be relevant to this study because by trying to adjust the interest rates, the pricing determinants of the commercial loans granted to SMEs is affected thus affecting the total cost of loanable funds. This development will in turn affect the loan uptake by the SMEs which will eventually affect the lending business of the Deposit money banks. The Loanable Funds theory is linked to credit access since access to credit is related to the interest rate charged. Akingunola (2011), Azende (2011), Muritala, Awolaja, and Bako (2012) and Taiwo, Falohun and Agwu (2018) have validated loanable fund theory in their studies and established that loan to SMEs enhance their contribution to economic activities and overall performance.

2.3 Empirical Review

Crimmins and Cruise (2013), and Imoughele and Ismaila (2014) examined the impact of deposit money bank credit on the growth of small and medium scale enterprises and found that bank density has direct but insignificant impact on the country SMEs revenue performance connected with the stringent policy in accessing credit facility. These findings are also in accordance with that of Onakoya, Fasanya and Abdulrahman (2013). Bassey, Asinya and Amba (2014). Riding, Barbara, Orser and Brad (2010) evaluated the impact of deposit money banks (DMB’s) financing of Small and medium scale enterprises on the economic development of Nigeria. The results revealed a weak significant effect between bank density and performance of SMEs and selected macroeconomic variables included in the model have a long run relationship with SMEs output. Bello and Mohammed (2015) also found a weak significant effect between bank density and SME revenue growth in Nigeria. These findings are also in accordance with that of Okpara and Pamela (2008).

Onakoya, Fasanya and Abdulrahman (2013) examined the impact of financing small scale enterprises on economic growth using quarterly time series data from 1992 to 2009 the study revealed that loan to small scale entrepreneurs have a positive impact on the economic performance and conclude that access to capital or finance is necessary but not a sufficient condition for successful entrepreneurial development. Imoughele and Ismaila (2013) also investigated the impact of commercial bank credit accessibility and sectoral output performance in Nigerian economy for the period which spanned between 1986 and 2011. An augmented growth model was estimated via the ordinary least square (OLS) techniques. The result found that the various commercial bank credit supplies have a long-run relationship with sectoral output performance in Nigeria.

Afolabi (2013) and Dada (2014) evaluated the effect of SMEs financing on economic growth in Nigeria. The study employed Ordinary Least Square (OLS) method to estimate the multiple regression models. The estimated model results revealed that SMEs output proxy by wholesale and retail trade output as a component of gross domestic product and commercial banks’ credit to SMEs exert positive and significant impact on economic development proxy real gross domestic product while lending rate is found to exert negative effects on economic growth. Mohammed (2014) examined the necessity and strategies of re-positioning commercial banks in order to enhance the productive capacities of SMEs employing the Error Correction Model (ECM) and Co-integration Test the results showed that there was co-integration between re-positioning of commercial banks and capacities of SMEs to deliver products/services and also there was significant dispersion resulting from lending conditions and macroeconomic variables. He concluded that the previous global financial crisis really brought with it economic hazards leading to banking sector crises. It was further established that government
should relax the conditions for lending offered by the commercial banks through the central bank, revitalize the capital markets and prioritize the SME in order to contribute to economic growth.

The study of Ikpor, Nnabu, and Obaji (2017) revealed that lending to small and medium scale enterprises leads to revenue growth of SMEs in Nigeria. Similarly, Hassan and Olaniran (2011) found the existence of positive relationship between assistance institutions and the performance of SMEs with regards to revenue growth and sales volume in Nigeria. On the contrary, Abiola (2012) found that access to finance does not enhance revenue growth of micro and small enterprises in Nigeria. In the same vein, Riding, Barbara, Orser, and Brad (2010) established that deposit money banks (DMB’s) financing of Small and medium scale enterprises has no significant impact on revenue performance of small and medium enterprises in Nigeria. The study of Kamunge, Njeru and Tirimba (2014) revealed that access to commercial credit did not contribute to entrepreneurial success in any significant way. On the basis of these findings, In the light of the foregoing, this study hypothesizes that:

**H0:** Business credit affordability sub-variables (interest rates, collateral requirement, and loan administration) have no significant effect on the revenue growth of selected small and medium scale enterprises in Southwest, Nigeria.

### III. Methodology

#### 3.1 Theoretical Framework and Measures
The theoretical framework in this study is depicted in Figure 1. The independent variable is business credit affordability was measured by (interest rate, collateral requirements, and loan administration), while revenue growth is the dependent variable. The primary data for the independent and dependent variables were collected through self-developed structured questionnaire.

![Figure 1: The theoretical model for the research variables and their relationships.](source)

Source: Developed by the Researchers (2019)

#### 3.2 Research Design
The study adopted cross-sectional survey research design. The design was appropriate for this study because the study sought information from the respondents relative to their attitudes, beliefs, feelings and behaviours (Owenvbiugie&Igbinedion, 2015). The research design also enables the authors to compare many different variables at the same time because it affords the opportunity to collect different kind of data in a relatively short period of time. The research design has also been employed by authors who have carried out similar studies on this phenomenon (Atkins, Dou, & Jeffrey, 2015; Durrah, Rahman, Jamil &Ghafeer, 2016;Obokoh& Goldman, 2016).

#### 3.3 Population and Sample
The target population consisted of 26,744 registered Small and Medium Scale Enterprises operating in Southwest, Nigeria (SMEDAN Reports, 2013). The unit of analysis was the SME owners in South-West of Nigeria, one from each SME in cases where there are more than one owner. The justification for selection is the belief by the researcher that the owner-managers have the authority to provide information on the main variables and sub-variables of this study.

A sample size of 649 was initially determined based on Cochran’s sample size formula (1977). However, 30% (194) of the sample size was added to it to increase the sample base as suggested by (Israel, 2009). This brought the sample size to 843. This was included to compensate for non-response probability. The formula used to calculate sample size is:
Business Credit Affordability and Revenue Growth of Small and Medium Scale Enterprises: ..

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

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%)

Table 3.1: Distribution of Questionnaire per State (Proportionate Sampling)

<table>
<thead>
<tr>
<th>No.</th>
<th>States</th>
<th>Registered Small and Medium Enterprises in South-West Nigeria</th>
<th>No. of Questionnaire</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ekiti</td>
<td>1029</td>
<td>32</td>
</tr>
<tr>
<td>2</td>
<td>Lagos</td>
<td>11663</td>
<td>368</td>
</tr>
<tr>
<td>3</td>
<td>Ogun</td>
<td>1794</td>
<td>57</td>
</tr>
<tr>
<td>4</td>
<td>Ondo</td>
<td>1999</td>
<td>63</td>
</tr>
<tr>
<td>5</td>
<td>Osun</td>
<td>2272</td>
<td>72</td>
</tr>
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<td>6</td>
<td>Oyo</td>
<td>7987</td>
<td>251</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>26744</td>
<td>843</td>
</tr>
</tbody>
</table>

Source: Researcher’s Computation (2019)

To get appropriate information from the respondents by States, the researchers used multi-stage sampling technique. The first stage involved the use stratified sampling technique. In this stage, the total population of SMEs in South-West Nigeria was identified and grouped according to the States where they operate. The six States are Lagos, Ogun, Oyo, Osun, Ondo and Ekiti. Thereafter the study employed simple random sampling method to select sample size in proportion to the total number of registered SMEs from each State which arrived at a total sample size of 843.

3.4 Data Collection

Data for the research was collected using a self-developed, closed-ended questionnaire. Closed-ended questionnaire was used due to ease of the administration and analysis of responses (Adimo, 2018). Furthermore, the cost and time required were low compared to other sources of data collection (Mundia&Iravo, 2014). The questionnaire instrument contained information on business credit affordability (interest rate, collateral requirements, and loan administration) and revenue growth. A six points modified Likert scale type was used to elicit responses from every question in the questionnaire and this covered; Very High (VH) = 6; High (H) = 5; Moderately High (MH) = 4; Moderately Low (ML) = 3; Low (L) = 2; Very Low (VL) = 1. This modified scale was intended to increase the reliability of the responses and also gain more effective result from the respondents.

The data were analyzed using Partial Least Square Structural Equation Modeling (PLS-SEM) through Smart PLS 3.2.8. Smart PLS was utilized because of its completeness (Balarabe, Lily, & Shamsul, 2017). The analysis consists of two stages. The first stage is the assessment of the reliability and validity of the measurement model and the second stage is the assessment of the structural model to test the hypothesis understudy. PLS techniques such as bootstrapping and blindfolding were used to evaluate the model predictive capability (Hair, Hult, Ringle, &Sarstedt, 2014; Obonyo, Okeyo, &Kambona, 2017).

IV. Data Analysis and Results

To ascertain the reliability and validity of the instrument used for data collection, the measurement model was calculated using PLS-SEM path modelling. The reliability is evaluated using Composite Reliability (CR) while validity is evaluated using Average Variance Extracted (AVE) and discriminant validity. Figure 2 and Table 4.1 represents the reliability and validity of latent variables of the study.

Table 4.1: Construct Reliability and Convergent Validity (Measurement Model) \( n= 813 \)

<table>
<thead>
<tr>
<th>Construct</th>
<th>Items</th>
<th>Loadings</th>
<th>AVE</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue Growth</td>
<td>REV GR1</td>
<td>0.794</td>
<td>0.578</td>
<td>0.775</td>
</tr>
<tr>
<td></td>
<td>REV GR2</td>
<td>0.719</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>REV GR3</td>
<td>0.599</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>REV GR4</td>
<td>0.713</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>REV GR5</td>
<td>0.787</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>REV GR6</td>
<td>0.567</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interest Rate</td>
<td>INT RAT1</td>
<td>0.598</td>
<td>0.598</td>
<td>0.879</td>
</tr>
<tr>
<td></td>
<td>INT RAT2</td>
<td>0.609</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 4.1 display the reliability and validity of constructs of the study. Construct reliability and convergent validity of constructs were tested using composite reliability and Average Variance Extracted (AVE) as suggested by Garson (2016). Composite reliability coefficient should be ≥ 0.7 also (Lee & Chen, 2013), while AVE coefficient should be ≥ 0.5 (Garson, 2016). Item loadings should be above 0.5. On Table 4.1, it is seen that all of the items met the minimum benchmark for item loadings (i.e., 0.5), composite reliability (i.e., 0.7) and AVE (i.e., 0.5). Therefore, it is assumed that the items on Table 4.1 displayed reliability and convergent validity. The data were next subjected to discriminant validity test using Fornell-Larcker criterion. The result is presented in Table 4.2.

Table 4.2: Discriminant Validity using Fornell-Larcker Criterion (n=813)

<table>
<thead>
<tr>
<th>Construct</th>
<th>Collateral Requirement</th>
<th>Interest Rate</th>
<th>Loan Administration</th>
<th>Revenue Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collateral Requirement</td>
<td>0.672</td>
<td>0.692</td>
<td>0.648</td>
<td>0.770</td>
</tr>
<tr>
<td>Interest Rate</td>
<td>0.627</td>
<td>0.627</td>
<td>0.619</td>
<td>0.678</td>
</tr>
<tr>
<td>Loan Administration</td>
<td>0.437</td>
<td>0.437</td>
<td>0.353</td>
<td>0.413</td>
</tr>
<tr>
<td>Revenue Growth</td>
<td>0.368</td>
<td>0.368</td>
<td>0.368</td>
<td></td>
</tr>
</tbody>
</table>

Note: The bolded numbers represent the square root of the AVE of each latent construct.

AVE was used by the study to establish discriminant validity using the Fornell–Larcker criterion. For discriminant validity to exist, the square root of the AVE should be higher than its correlation with other latent variables (Garson, 2016). On Table 4.2, the bolded numbers represent the square root of the AVE of each latent construct. The square roots of the AVE of each construct are higher than their correlations with other latent construct. Based on the Fornell-Larcker criterion, the data exhibited discriminant validity. The study subsequently tested the hypotheses of the study by calculating the structural model, bootstrapping the samples 5,000 times.
Table 4.3 presents results on the test of hypothesis. Two of the three measures of business credit affordability are supported while one variable (interest rate) was not supported. From Table 4.3, it is revealed that collateral requirement ($\beta = 0.271, t = 5.527, p<0.05$) has positive and significant effect on the revenue growth of selected small and medium enterprises. That implies that, a change in collateral requirement, will lead to a 0.271 positive change in revenue growth of selected small and medium enterprises. Also, loan administration has positive and significant effect on the revenue growth of selected small and medium enterprises ($\beta = 0.229, t = 4.229, p<0.05$). This implies that a change in loan administration, will lead to a 0.229 increase in revenue growth of selected small and medium enterprises. Finally, interest rate has positive but insignificant effect on the revenue growth of selected small and medium enterprises ($\beta = 0.031, t = 0.532, p>0.05$). Since two out of the three measures of business credit affordability were statistically significant, the null hypothesis was hereby rejected. This means that business credit affordability through collateral requirement and loan administration have significant effect on the revenue growth of small and medium scale enterprises in Southwest Nigeria.

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

Table 4.4 display the effect size of each of the independent variable in the study.

**Table 4.4: Effect Size ($F^2$) of Exogenous Variables**

<table>
<thead>
<tr>
<th>Construct</th>
<th>$F$-Square ($F^2$)</th>
<th>Effect Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collateral Requirement $\rightarrow$ Revenue Growth</td>
<td>0.049</td>
<td>Small</td>
</tr>
<tr>
<td>Interest Rates $\rightarrow$ Revenue Growth</td>
<td>0.001</td>
<td>Not significant</td>
</tr>
<tr>
<td>Loan Administration $\rightarrow$ Revenue Growth</td>
<td>0.031</td>
<td>Small</td>
</tr>
</tbody>
</table>

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

As summarized in Table 4.4, the predictive effect size of collateral requirement was 0.049, this means that collateral requirement has small effect on revenue growth of small and medium enterprises. Loan
administration has an $R^2$ value of 0.031, this means that loan administration also has a small effect of revenue growth of SMEs were small. The $R^2$ value of interest rate was 0.001 which is below the minimum threshold, this means that interest rate has no significant predictive effect on revenue growth of SMEs.

### 4.2 Discussion of Findings

This study investigated the effect of business credit affordability sub-variables (interest rates, collateral requirement, and loan administration) on revenue growth of small and medium scale enterprises in Southwest, Nigeria. The results of the study revealed that collateral requirement and loan administration have significant effect on revenue growth while interest rate is not significant. Several conceptual studies have pointed that SMEs credit affordability become financial resource for SMEs business activities which invariably increased SMEs revenue growth (Ahiawodzi & Adeede, 2012; Tuyisenge, Mugambi, & Kemirembe, 2015). Also, Bean (2017) and Experian (2014) conceptually argued that SMEs credit affordability enhanced financial capabilities of SMEs to fund new and outstanding loan now and in the future in order to increase revenue growth of the SMEs. Furthermore, studies such as Beck and Demirguc-Kunt (2016) and Kevane and Wydick (2016) found that SMEs bank credit increased SMEs revenue. Kevane and Wydick (2016) further argued that access to finance allows SMEs in developing economies to undertake productive investments to expand their businesses and to acquire the latest technologies, thus ensuring their competitiveness, and fostering innovation, macroeconomic resilience, GDP and revenue growth. Ebenezer, Evans and Seth (2019) empirically suggested that provision of credit to small enterprises encourages SMEs revenue and economic growth in the informal sector through promoting increased capitalization of business, creating employment opportunities, and long-term income growth. This finding was also supported by Aghion and Bolton (2017) who argue that bank credit means more entrepreneurship, thus increase their revenue growth and economic activities contribution to economic growth. Similarly, Crimmins and Cruise (2013), Imougehele and Ismaila (2014), Onakoya, Fasanya and Abdulrahman (2013) and Riding, Barbara, Orser and Brad (2010) found that bank density and bank credit extension have significant impact on the country SMEs revenue performance connected with the stringent policy in accessing credit facility. These findings are also in accordance with that of Bassey, Asinya and Amba (2014). From theoretical aspect, both financial intermediation theory and resource-based theory (RBT) supported the finding of this study that financial intermediation theory and resource-based theory (RBT) clarified link between SMEs overall performance and business credit affordability and availability. Financial intermediary theory established that bank credit enhanced link between deposit money banks, SMEs owners and savers of the surplus funds. Also, RBT viewed bank credit as financial resource that enhanced SMEs revenue growth.

### V. Conclusion and Recommendation

Based on the findings of the study, the study concludes that collateral requirement and loan administration have significant effect and lead to increase in revenue growth, while interest rate has positive but insignificant effect on revenue growth. Thus, the inability of SMEs to access business credit in Nigeria has been due to the high interest rates charged on credits. The interest rate of commercial were not favourable to SMEs. The findings of Olatunji, and Ibukun-Falayi (2018) confirmed that in spite of continuous policy strategies to attract credits to SMEs, most Nigerian SMEs has founded banks credits unattractive due to prohibitive interest rate and another cost of credits. Eze and Okpala (2015) affirmed that interest rate on loans to SMEs has not gone down enough to be able to stimulate the growth of SMEs in Nigeria. The study therefore recommended that Central Bank of Nigeria should consider revising their policy on interest rate charged to single digit, credit appraisal techniques, transaction costs, debt collection process and limitation on the amount of loan granted that accommodate SMEs financial needs in order to increase SMEs affordability of loan therefore increase SMEs revenue growth.

### References


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APPENDIX
QUESTIONNAIRE
SECTION A: ENTERPRISE CHARACTERISTICS
(1) Business Nature of the enterprise: Manufacturing
   Construction
   Processing
   Services
(2) Age of the enterprise:
   5-8 years
   9-12 years
   13 years and above
   69-84
   85 and above
(3) Number of Employees:
   5-20
   21-36
   37-52
   53-68
   69-84
   85 and above
(4) Current Value of Assets:
   #100 million or less
   #50 million or less
   #10 million or less
   #150 million or less

SECTION B: PERSONAL CHARACTERISTICS
Please indicate by ticking
(5) Sex: Male Female
(6) Age: 21-30 years
   31-40 years
   41-50 years
   51-60 years
   61 years and above
(7) Educational Qualification: O/L
   ND
   HND/BA/B.Sc
   MA/M.Sc
   M.Phil/ Ph. D
   Other specify
(8) Number of years in the Enterprise:
   1-5 years
   6-10 years
   11 and above

SECTION C
BUSINESS CREDIT AFFORDABILITY
This section contains the questions relating to the variables under study. Please read carefully and tick the appropriate box as it relates to your opinion on the items raised under each variable below. Where:

VH = Very High, H = HIGH, MH = Moderately High, ML = Moderately Low, L = Low, VL = Very Low

<table>
<thead>
<tr>
<th>Business Credit Affordability</th>
<th>VH</th>
<th>H</th>
<th>MH</th>
<th>ML</th>
<th>L</th>
<th>VL</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>C.1 Collateral Requirement</strong> - To what extent did you use the following in securing loan from banks</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.1 Tangible assets</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>1.2 Personal assets</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>1.3 Collateralization process cost</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>1.4 Investment/stocks</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>1.5 Accounts receivable</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>1.6 Business inventory fixed assets</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td><strong>C.2 Interest Rates</strong> - To what extent has the following determinants of demand for credit influence your access to credit/finance from banks</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.1 Credit requirements</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.2 Rate of inflation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.3 Hidden charges</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.4 Application procedures</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.5 Security of the loan</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.6 Exchange rates</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>C.3 Loan Administration</strong> - To what extent has the following dimensions of demand for credit influence your access to credit/finance from banks</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.1 Loan Valuation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.2 Loan Charging</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.3 Loan Realization Cost</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.4 Loan Restructuring</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.5 Loan Recovery Policy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
SECTION D
REVENUE GROWTH
Using the scale below, kindly tick the appropriate box as it relates to your opinion on the items raised under each variable.
Where:
VH = Very High, H = High, MH = Moderately High, ML = Moderate Low, L = Low, VL = Very Low.

<table>
<thead>
<tr>
<th>D.1</th>
<th>How would you relatively rate the following?</th>
<th>VH</th>
<th>H</th>
<th>MH</th>
<th>ML</th>
<th>L</th>
<th>VL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>Revenue from sales</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>1.2</td>
<td>Sales volume</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>1.3</td>
<td>Growth of profit margin</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>1.4</td>
<td>Liquid assets to total assets</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>1.5</td>
<td>Net margin on sales</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>1.6</td>
<td>Net profit</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>