

MACROECONOMIC ENVIRONMENT FACTORS AND SMALL BUSINESSES CREDIT ACCESSIBILITY

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Abstract:

Research background: The importance of small businesses in developing economy like Nigeria cannot be over stressed. Small businesses need funds to actualize their objectives through operational activities. However, the conditions for accessibility of funds have been difficult.

Purpose of the article: Therefore, the study examined macroeconomics environment factors and small business credit accessibility in Nigeria.

Methods: The study adopted longitudinal research design and secondary source of data collection. The study employed robust least square as statistical analytical method. The findings showed that exchange rate does not have significant effect on credit to small businesses. Lending rate and liquidity ratio have significant effect on credit to small businesses.

Findings & Value added: The study concluded that lending rate and liquidity ratio are the predictors and determinants for credit to small business in Nigeria. Thus, the study recommended that the controller of Nigerian economy should adopt measures to stabilise the country's foreign exchange. Also, Central Bank of Nigeria should continue with the way and manner at lending rate and liquidity ratio are being maintained. Also, the government through the apex bank should establish a commission or set up a committee that will oversee and monitor the credit to small business operators if the credits are judiciously utilized. The study added that only liquidity ratio and interest rate affect the accessibility of funds by the small businesses. The findings of the study will be useful for controller of Nigerian economy and small business owners.

Keywords: Macroeconomic Environment; Exchange Rate, Lending Rate; Liquidity Ratio
Credit to Small Businesses

JEL Classification: B22; C12; E60; M00

1. Introduction

Every business organisation operates in an environment where they compete with each other to gain vantage market operation. This environment that businesses are operation has been tagged business environment. Generally, there is no certainty in business environment. This makes business environment to be unpredictable by business analysts and it is dynamic in nature because business environment is a set of forces and conditions in and outside the organisation boundaries that affect the operations of the business. Business environment has been viewed as internal and external environment but the concern of this study is the external environment. External business environment are the forces, factors, conditions, institutions, programmes, policies and variables that are outside the boundary of a business entity that affect its operations.

In today's 21st century, no businesses around the globe can survive without sound business credit accessibility and dynamic understanding macroeconomics factors as part of external business environment such as exchange rate, lending rate and liquidity rate. Small businesses credit accessibility play vital and going concerned role in the survival of small businesses amid macroeconomics environment. These macroeconomic environment factors affect business activities which the business operators do not have power to control or manipulate but manage.

According to Olufemi and Laseinde (2019), macroeconomic environment factors determines the macroeconomic policies for an economy. In the view of Ogunbiyi and Abina (2018), the stability of macroeconomic environment is a major requirement for sustainability of an economy. Macroeconomic environment enhances national saving and investment as well as international trade (Ogunbiyi and Abina, 2018; Machi, 2011).

Main objective of every nation in the globe is the sustainability of economic growth as it measures the country overall economic development (Ali, Saifullah and Kari, 2015). Ismaila and Imoughele (2015) believed that economic growth is a fundamental requisite to development of an economy. It enhances living standard of the people (Suliman and Osman, 1994). One of the sectors that contributes greatly to economic activities that could lead to growth is small businesses sub-sector. Nwakoby et al. (2017) stated that small scale businesses are the foundation and building block for sustainable economic growth. Small businesses are parts of the forces that drive accomplishment of industrial growth and development. Therefore, small businesses plays important role in Nigerian economy and they must have access to finance because finance is an important function in executing business plan and ideas. However, studies such as Ayunku and Eweke (2020), Afolabi et al. (2016), Oaya and Mambula (2017) among others pointed that most small business collapsed due to poor access to credit and unable to determine dynamic trend of macroeconomic environment such as exchange rate, lending rate and liquidity ratio. Although among several studies reviewed, there exist paucity of studies especially within Nigeria context have investigated the effect of macroeconomic environment factors (exchange rate, lending rate and liquidity ratio) on small businesses credit accessibility in Nigeria Due to the role of small businesses in Nigerian economy and identified background issue, it is important to investigate how the macroeconomic environment factors (exchange rate, lending rate and liquidity ratio) determine small business credit accessibility in Nigeria.

1.2 Statement of the Problem

Finance is one of the major factors that enhance the accomplishment of small business objectives and at the same time, finance has been one of the major challenges of small businesses in developing economy like Nigeria. Oaya and Mambula (2017); Afolabi et al. (2016) pointed that inadequate financing of operational activities of small businesses in Nigeria is a crucial factor that poses as a problem to small business operators. It is identified that that the inadequacy in the finance of small business is as result of low external source financing.

The internal sources of finance which Muo et al. (2020) termed as financial bootstrapping for small businesses is not enough for small business owners to actualized their business goals and objectives.

One could wonder what causes the low external financing for small businesses of which the predominant external source of finance for small business is credit from the financial institutions. It cannot be told if the small business owners are not even accessible to the sources of external finance available to them. Ptak-Chmielewska and Matuszyk (2019) is of the opinion that small businesses could have access to financial institution credit if there is stability in the macroeconomic environment.

Ayunku and Eweke (2020) expressed that the business environment which small businesses operate in developing economy like Nigeria is characterized with frequent changes in the macroeconomic policies of the controller of the economy. Certainly, the frequent changes in the macroeconomic policies affect the macroeconomic environment (Ptak-Chmielewska and Matuszyk, 2019). It is yet to be cleared and affirmed if the changes in the macroeconomic environment factors (exchange rate, lending rate and liquidity ratio) have an influence in small business credit accessibility in Nigeria. In addition, numerous studies on macroeconomics environment factors have been conducted (Ptak-Chmielewska and Matuszyk, 2019; Adenomon and Ojo, 2019; Johnson et al., 2018; Afolabi et al., 2017; Jenkins and Hossain, 2016) among others focusing performance of businesses despite the fact financing is needed for businesses to perform. Studies reviewed focused on small and medium businesses without considering the fact that both businesses (small and medium) do not face the same challenges. It is on this note that the study intends to see how macroeconomics environment factors influence the accessibility of credit to small businesses in Nigeria. Therefore, the study intends to investigate the influence of exchange rate, lending rate and liquidity ratio on the credit given to small businesses in Nigeria.

2. Literature Review

2.1 Macroeconomics Environment Factors

Macroeconomic environment factors refers to those elements of government designed at the aggregate economy, generally to stimulate the economic aims of full employment, stability, and progress (Ismaila and Imoughele, 2015). Sustainability of economic growth, price stability as well as full employment are among the objectives of macroeconomic. In achieving one objective of macroeconomics could results in sacrificing another objective. This, as noted by Ilugbusi (2017); Ismaila and Imoughele (2015) implies that there is potential of conflict arising among the objectives of macroeconomic. These macroeconomic environment factors measures are requirements necessary for the achievement of internal and external balance, and the promotion of long-run economic growth (Ilugbusi, 2017). Macroeconomic environment factors captured in this study are lending rate, exchange rate, liquidity ratio and inflation rate.

Exchange Rate: It is the price of one money in terms of another money. Traditionally, exchange rate is defined as the value of the foreign currency in terms of the domestic currency (Mejekomi, 2000). An exchange rate is the amount at the currency of a nation will be exchanged for another (Adeyemi and Akinbayo, 2019; Benson et al., 2019). Odili, (2014) defined exchange rate as the domestic currency price of a foreign currency.

Exchange rate is one of the actor players of macroeconomic environment used to determine the international competitiveness and it is considered as a measure of how competitive the currency of a country is (Rasaq, 2013). Exchange rate remains a veritable tool in the growth of an economy as its stability is very germane in stimulating export and private investment

(Adeyemi and Akinbayo, 2019). According to Ezenwakwelu (2017), exchange rate is determined in the foreign exchange market. It could view as spot exchange rate or forward exchange rate. The spot exchange rate refers to the present rate of exchanging a currency. The forward exchange rate refers present quoted and traded rate which its delivery and payment could be done at a stated future date

Lending Rate: Maiga (2017) sees interest as the price which equates the supply of “Credit” plus the net increase in the amount of money in the period, to the demand for credit plus net „hoarding“ in the period. Interest rate also represents the way in which banks and other financial institutions make money as they react to the return on the use of their resources (Osadume 2018; Ibimodo, 2005).

In Nigeria, Ajayi et al. (2017) expressed that lending rate is meant to moderate the inflation rate, to influence the financial savings and investment, to promote the macroeconomic stability as well as the stability in the financial sector. Lending rate as one of the measures the economy regulatory authorities used to control the economy, and to enhance allotment of limited supply of credit among the various contending demands (Maiga, 2017). Ajayi et al. (2017) posited that there are factors that determine the fluctuation of lending rate which are government interventions, market expectations amongst others. Osadume (2018) affirmed that interest rate exists to make the most efficient use of resources or more cynically, to make profit. In banking, interest rate is said to be the charge for the use or for borrowing money while in economics it is regarded as payment for the service of capital. The classical economists argued that it is only by postponing consumption that capital can be created and to abstain, however is disagreeable and painful, so the lender is paid a reward in the form of interest.

Liquidity Ratio: Liquidity is the ability of a business entity to settle its obligations with immediacy. The particular percentage that a business normally sets aside to meet its immediate needs could be referred to as the ratio; hence, liquidity ratio. Liquidity ratio can be referred to as bank regulation policy by the monetary authority that set the minimum reserves deposit money bank must hold. According to Onyekwelu et al. (2018), liquidity ratio connotes firms’ ability to possess the requirements to meet up with its short-term obligation. Generally, cash and near cash equivalents are the requirements that aid a firm to overcome challenges of short term obligation and related challenges. Therefore, liquidity ratio is one of the tools used by the Central Bank of Nigeria to control and regulate the economy in order to achieve the desired economic goals.

2.2 Small Business and Credit Accessibility

In Nigeria, small-scale business account for about 70% of industrial employment and over 50% of the Gross Domestic Product (Odeyemi, 2003). Small Scale Industry Development Plan sees small scale business in Nigeria as any business entity with an investment capital not exceeding N150,000. The small scale industries association of Nigeria (1973) defined small scale business as those having investment (i.e. capital, land, building, and equipment of up to N60, 000 pre-SAP Value) and employing not more than fifty person. The concept of small business is being seen different across the globe at different periods. A small scale business is an enterprise with capital employed that is within N1.5 million to N50million excluding cost of land and staff strength of 11-100 employees (Adebayo and Nassar, 2014). For a small business to prosper, fund is needed which must be accessible to the small business operators.

Odufuye (2017) defined credit as the course of sourcing financial aids from the financial institutions, government agencies, and individuals in form of loan. It can also be describe as a means of obtaining resources at a certain period of time with an obligation to repay in accordance with the terms and conditions of the credit obtained. Credit accessibility therefore

means the affability of credit facilities obtainable to the small business operators. Balogun et al. (2018) is of the opinion that business plan, collateral security, interest rate, government policy, cordial relationship, networking, managerial competency, past credit performance of small business owners, as well as borrower's character are among the factors that determine credit accessibility of small businesses.

2.3 Theoretical Underpinning

2.3.1 Credit Channel Theory

Credit channel theory came into limelight from the model of Bernanke and Blinder (1988) model on monetary policy transmission. Supporters of this theory include Stein (1998); (Kashyap and Stein, 1994). The theory is of view that changes in the apex bank policies in stabilizing an economy affect the amount of loan that financial institutions majority the banks will give out the public which in turn affects the real economy. According to Bernanke and Gertler (1995), credit channel theory stressed that endogenous variations in the external sources of finance for businesses enlarge the influence of monetary policy tools on the interest rate. This implied that the amount loan or credit that will be given out by the financial institution will be altered as results of changes in macroeconomics variables that makes macroeconomic environment. Macroeconomic environment are controlled by the apex bank, therefore, it is the apex bank that can cause the changes in the macroeconomic variables. Macroeconomics variables are parts of the tools monetary authorities used as monetary policy instrument to control the economy.

Credit channel Theory believed that changes in macroeconomic variables could affect credit to business operators in two ways. The first way is via balance sheet channel (BSC). Balance sheet channel (BSC) stressed on the possibility of the influence of changes in macroeconomic factors as monetary policy instruments on the balance sheets and income statements of the borrowers which are small business operators in this study. According to Sun et al. (2010), the BSC is related to the changes in borrowers' net worth that result in increment in cost of external financing. The core instrument encompasses the link between "external finance premium" (the difference between the cost of funds raised externally and the opportunity cost of funds internal to the firm) and borrowers; the net worth of potential borrowers (borrowers' liquid assets plus collateral value of illiquid assets less outstanding obligations).

The second way is via bank lending channel. Banking lending channel (BLC) focuses the possibility of loan supply by the financial institutions. The bank lending channel (BLC) concentrated on a specific role to the financial institutions. Anders (2003) mentioned that bank lending channel can be viewed from two angles-deposit explanation and capital adequacy explanation. Deposit explanation refers to the conventional bank lending channel, while capital adequacy explanation is called bank capital channel.

2.4 Empirical Review

Ptak-Chmielewska and Matuszyk (2019) examined macroeconomic factors and SMEs bankruptcy risk in Poland. The logistic regression showed that macroeconomic factors-GDP, inflation, and the unemployment rate improved the prediction to the SMEs bankruptcy. Economic growth and macroeconomic dynamics in Nigeria was investigated by Johnson, Onakoya and Akeju (2018) from 1975 to 2015. The findings revealed that inflation contributes negatively to economic growth. Interest rate, exchange rate and unemployment impact economic growth positively. Small business credit accessibility and GDP were not included in the study.

Adenomon and Ojo (2019) investigated the impact of macroeconomics variables on economic growth from 1984 to 2017. The study employed the inflation rate, unemployment rate and interest rate as macroeconomics variables on real gross domestic product per capita. The results showed that there was long-run relationship between inflation rate, unemployment rate and interest rate on real gross domestic product per capita in Nigeria. The study failed capture liquidity ratio and exchange rate as well as credit accessibility for small businesses

Jenkins and Hossain (2016) conducted a study on macroeconomic conditions and SMEs lending in emerging economies. The study employed time series and panel data analysis to conclude that macroeconomic conditions positively influence SMEs credit and gross domestic product. Akingunola (2011) found in his study on economic growth and financing small and medium enterprises in Nigeria that there is positive relationship between SMEs financing and economic growth using investment as an indicator for economic growth. Macroeconomic environment was not part of the focus of the study. Similarly, Afolabi (2013) used ordinary least square method to report that SMEs financing is positively related to economic growth. Macroeconomic environment was not part of the focus of the study The study of Afolabi et al. (2017) on credit accessibility and economic growth in Nigeria from 1981 to 2012 through Vector autoregressive model showed that a positive but insignificant effect of SMEs financing and lending rate on gross domestic product. Other macroeconomic environment proxies like liquidity ratio and exchange rate were not captured

Halim et al. (2017) conducted an evaluation of the role of macroeconomics variables on SMEs profitability in Malaysia. The study used multiple regression analysis and revealed that exchange rate and lending rate have positive effect on SMEs profitability but inflation rate has a negative impact on the profitability of SMEs. Sofyan and Primiana (2015) used a theoretical approach to conclude that external business environment which macroeconomic environment is part of has a significant effect of SMEs performance. The study was not empirically conducted. Nwekpa and Ewans (2015) studied economic factors and performance of small businesses in Nigeria from 1970 to 2013. The results from the ordinary least square (OLS) analysis showed that inflation rate, Exchange rate, Government Tax Revenue, External Finances and interest rate as economic indices have a significant effect on the performance of small scale businesses in Nigeria. However, the study failed to capture financing part of small business operations and how it has influence Nigerian economy.

Bekeris (2012) carried out the impact of macroeconomic indicators on the profitability of SMEs in Lithuania. The study employed population and firms' number in a country, exports and imports, FDI, GDP, unemployment, inflation, taxes paid, average salary as indicators for macroeconomic. The correlation results showed that macroeconomic indicators have positive relationship with SMEs profitability. Interest rate, lending rate as well as liquidity ratio were not considered as proxies for macroeconomic environment. Also, the study did not focus on small business finance. Nwoye et al. (2015) made an inquiry in Nigeria on how the macroeconomic environment has affected the economy. The OLS analysis indicated that a distinctive relationship occurs between exchange rate, inflation rates, monetary policies, and GDP growth. The study of Onakoya et al. (2013) showed that loan to small scale entrepreneurs have a positive impact on the economic performance while interest rate has a negative impact on economic growth. Small business credit accessibility was not captured. The study was on how financing the small businesses affected the economy of Nigeria. In Bangladesh, VAR co-integration analysis was employed by Ali et al. (2015) to ascertain how important macroeconomic factors have predicted the economy. It was demonstrated that economic growth is predicted in the long run by market capitalization, foreign direct investment and real interest rate. Small business credit accessibility was not captured.

3 Methodology

Longitudinal research design was adopted because it establishes the positive and/or negative direction of the variables employed in this study. The study relied on secondary source of data collection because of the quantitative nature of the study. The study collected data from the statistical bulletin of Central Bank of Nigeria from 1985 to 2019. The study collected data on lending rate, liquidity ratio, exchange rate and credit to small businesses in Nigeria.

The study adapted the model of Ebire and Onmonya (2018) on monetary policy instruments and small-scale enterprise financing in Nigeria.

$$SSEsFin_t = \beta_0 + \beta_1 BC_{1t} + \beta_2 INTR_{2t} + \beta_3 INFR_{3t} + \beta_4 EXCR_{4t} + \mu_t \quad (1)$$

Where SSEsFin represents Small scale enterprises financing; BC represents bank credit; INTR represents interest rate; INFR represents inflation rate; EXCR represents exchange rate. In line with the objectives of this study, the equation 1 is thus re-modified

$$LogCSBs = \beta_0 + \log \sum_{i=1}^n \beta_i EXCR + \mu_t \quad (2)$$

$$LogCSBs = \beta_0 + \log \sum_{i=1}^n \beta_i LR + \mu_t \quad (3)$$

$$LogCSBs = \beta_0 + \log \sum_{i=1}^n \beta_i LIQR + \mu_t \quad (4)$$

Where CSB_t represent credit to small businesses in period t; EXCR_t represents exchange rate in period t; LR_t represents lending rate in period t; LIQR_t represents Liquidity ratio in period t; β_0 represents constant; β_1 - β_3 represents parameters of the variables; μ_t represents error term in period t, and Log represent logarithm. The study employed Augmented Dickey Fuller (ADF) and Phillip Perron (PP) as unit root test to ascertain the stability of the data in order to avoid spurious results. Correlation matrix was used to confirm the relationship among the variables. The study further tested the long run relationship among the variables via Johansen co-integration test. The hypotheses of the study were tested through Robust Least Square. Robust regression was used in order to detect the influential observations in the models and overcome some traditional limitations of parametric methods of analysis

4 Results

Table 1: Unit root test for macroeconomics environment factors and credit accessibility for small businesses

Variables	ADF Values	5% Critical Values	Prob	Phillips-Perron values	5% Critical Values	Prob.
Lending Rate	6.4590	2.9540	0.0000	6.4605	2.9540	0.0000
Liquidity Ratio	7.1622	3.5530	0.0000	7.8849	3.5529	0.0000
Exchange Rate	4.0526	2.9540	0.0036	3.8928	2.9540	0.0054
Credit to Small Businesses	6.7681	2.9719	0.0000	29.5683	3.5684	0.0000

Source: Researcher's Computation

Table 1 showed the results of the unit root test of the study. Augmented Dickey Fuller (ADF) and Phillips-Perron (PP) were adopted to ascertain the stability of the data. The results indicated that the ADF values for lending rate, liquidity ratio, exchange rate, and credit to small businesses were 6.4590; 7.1622; 4.0526; and 6.7681 respectively which were all greater than

the 5% critical values- 2.9540; 3.5530; 2.9540; 2.9719; and 2.9810 respectively ignoring the sign (ADF values > 5% critical values). Also, the values of PP for all the variables- lending rate, liquidity ratio, exchange rate, and credit to small businesses were 6.4605; 7.8849; 3.8928; and 29.5683 are greater than the 5% critical values of the variables- 2.9540; 3.5529; 2.9540; and 3.5684 respectively. For a variable to be stationery the absolute ADF and PP values must be greater than the critical values given at various percentage levels ignoring the sign.

4.1 Correlation Matrix

Table 2: Correlation matrix between macroeconomics environment and credit small businesses

	Credit to Small Businesses	Exchange Rate	Lending Rate	Liquidity Ratio
Credit to Small Businesses	1			
Exchange Rate	0.2989	1		
Lending Rate	0.3573	0.3349	1	
Liquidity Ratio	0.2895	0.1662	-0.1467	1

Source: Researchers' Computation

Table 2 demonstrated the correlation matrix among the indicators of macroeconomic environment and credit to small businesses and GDP. The results showed that exchange rate, lending rate and liquidity ratio have positive correlation values of 0.2989; 0.3573 and 0.2895 respectively with credit to small businesses. Furthermore, there is positive correlation between lending rate and exchange rate of 0.3349; there is positive correlation of 0.1662 between liquidity ratio and exchange rate. However, lending rate has a negative correlation value of -1467 with liquidity ratio for the period under review.

4.2 Co-integration Test

Table 3: Exchange Rate and Credit to Small Businesses

Hypothesized No. of CE(s)	Trace Test Statistic	5% Critical Value	Probability	Max-Eigen Statistic	5% Critical Value	Probability
None	26.6577	15.4947	0.0007	19.8136	14.2646	0.0060
At Most 1	6.8441	3.8415	0.0089	6.8441	3.8415	0.0089

Source: Researchers' Computation

Table 3 displayed the results for co-integration test between exchange rate and credit to small businesses from 1985 to 2019. It was indicated that there is long run relationship between exchange rate and credit small businesses. The trace test statistic result at "None" was 26.6577 is greater than the 5% critical value of 15.4947. Also, the value of max-eigen statistic was 19.8136 is greater than 5% critical value 214.2646 at None. The probabilities values for the trace test statistic and max-eigen statistic were less than 0.05% significant level. This showed that there is long run relationship among the variables.

Table 4: Lending Rate and Credit to Small Businesses

Hypothesized No. of CE(s)	Trace Test Statistic	5% Critical Value	Probability	Max-Eigen Statistic	5% Critical Value	Probability
None	20.6380	15.4947	0.0077	13.0584	14.2646	0.0769
At Most 1	7.5796	3.8415	0.0059	7.5796	3.8415	0.0059

Source: Researcher's Computation

Table 4 showed co-integration test results using Johansen test between lending rate and credit to small businesses from 1985 to 2019. The results for Trace test statistic showed a long run relationship between lending rate and credit to small businesses as the trace test value 20.6380 is greater than the 5% critical value 15.4847 with p-value of 0.0077 which is less than 0.05%. However, the value of max-eigen statistic value 13.0584 is less than the 5% critical value 14.2646 with p-value 0.077 that is greater than 0.05% at None. Therefore, the study selected the co-integration results of Trace Test Statistics. Thus, there is long run relationship between lending rate and credit to small businesses.

Table 5: Liquidity Ratio and Credit to Small Businesses

Hypothesized No. of CE(s)	Trace Statistic	Test 5% Value	Critical Probability	Max-Eigen Statistic	5% Critical Value	Probability
None	16.9350	15.4947	0.0302	13.2640	14.2646	0.0769
At Most 1	0.1152	3.6710	0.0554	3.6710	3.8415	0.0554

Source: Researcher's Computation

Table 5 showed co-integration test results using Johansen test between liquidity ratio and credit to small businesses from 1985 to 2019. The results for Trace test statistic showed a long run relationship between lending rate and credit to small businesses as the trace test value 16.9350 is greater than the 5% critical value 15.4947 with p-value of 0.0302 which is less than 0.05%. However, the value of max-eigen statistic value 13.2640 is less than the 5% critical value 14.2646 with p-value 0.0769 that is greater than 0.05% at None. Therefore, the study selected the co-integration results of Trace Test Statistics. Thus, there is long run relationship between lending rate and credit to small businesses.

4.3 Robust Least Square

Hypothesis one: Exchange rate does not have significant effect on credit to small businesses

Table 6: Regression Results for Exchange Rate and Credit to Small Businesses

Independent Variable	Coefficient	Std. Error	z-Statistic	Probability
C	9.8294	0.3313	29.6734	0.0000
Log(Exchange Rate)	0.1023	0.0756	1.3534	0.1759
R-Square	0.051		Rn-squared statistic	1.8317
Adjusted R-Squared	0.021		Prob(Rn- Square Statistic)	0.1759

Dependent Variable: Credit to Small Business

Source: Researchers Computation

Table 6 showed the simple regression results for hypothesis one-exchange rate does not have significant effect on credit to small businesses. The results indicated that exchange rate accounted for 2.1% of the variations in the credit to small businesses while the remaining 98.9% is accounted by other factors not captured in the hypothesis. The results showed that exchange rate has a positive but insignificant effect on credit to small businesses ($\beta = 0.1023$, z-statistic = 1.3534, p-value = 0.1759 > 0.05% significant level). The value of Rn-squared statistic 1.8317 with p-value 0.1759 which greater than 0.05% revealed the model is not significant and exchange rate has no significant effect on small business credit. Thus, the study accepted the null hypothesis

Hypothesis two: Lending rate does not have significant effect on credit to small businesses

Table 7: Regression Results for Lending Rate and Credit to Small Businesses

Independent Variable	Coefficient	Std. Error	z-Statistic	Probability
C	6.1931	1.3119	4.7207	0.0000
Log(Lending Rate)	1.4000	0.4540	3.0839	0.0020
R-Square	0.197		Rn-squared statistic	9.5103
Adjusted R-Squared	0.172		Prob(Rn-Statistic Stat)	0.0020

Dependent Variable: Credit to Small Business

Source: Researchers Computation

Table 7 showed the simple regression results for hypothesis two-lending rate does not have significant effect on credit to small businesses. The results indicated that lending rate explained 17.2% of the changes in the credit to small businesses while the remaining 82.8% is explained by other factors not captured in the hypothesis. The results showed that lending rate has a positive and significant effect on credit to small businesses ($\beta = 1.4000$, z-statistic = 3.0839, p-value = 0.0020 < 0.05% significant level). The value of Rn-squared statistic 9.5103 with p-value 0.0020 which greater than 0.05% revealed that the model is fit for the study and lending rate has a significant effect on credit to small business. Thus, the study rejected the null hypothesis.

Hypothesis three: Liquidity ratio does not have significant effect on credit to small businesses

Table 8: Regression Results for Liquidity Ratio and Credit to Small Businesses

Independent Variable	Coefficient	Std. Error	z-Statistic	Probability
C	6.3972	1.7978	3.5584	0.0004
Log(Liquidity Ratio)	1.0020	0.4679	2.1417	0.0322
R-Square	0.107		Rn-Squared Statistic	4.5867
Adjusted R-Squared	0.079		Prob(Rn-Statistic Stat)	0.0322

Dependent Variable: Credit to Small Business

Source: Researchers Computation (2021)

Table 8 showed the simple regression results for hypothesis three- Liquidity ratio does not have significant effect on credit to small businesses. The results indicated that liquidity ratio explained 7.9% of the changes in the credit to small businesses while the remaining 93.1% is explained by other factors not captured in the hypothesis. The results showed that liquidity ratio has a positive and significant effect on credit to small businesses ($\beta = 1.0020$, z-statistic = 2.1417, p-value = 0.0322 < 0.05% significant level). The value of Rn-squared statistic 4.5867 with p-value 0.0322 which less than 0.05% revealed that the model is fit for the study and liquidity ratio has a significant effect on credit to small business. Thus, the study rejected the null hypothesis.

5 Discussion

The importance of external environment to business activities and decisions cannot be over emphasized. Macroeconomic environment is an environment that affects all business activities in an economy because the environment embraces economic factors or variables that determine economic growth. From the findings on hypothesis one, it is identified that a change in the units

of exchange rate will cause a change in the credit given to small businesses by 0.1023. This depicts that exchange rate and credit to small businesses move in the same direction which means that there is a direct influence of the exchange rate on the credit to small businesses. However, exchange rate could not predict the volume of credit that will be given to small business owners. The findings agreed with the studies of Sun, Gan and Hu (2010) but disagreed with the findings of Eric (2017)

Also, lending rate has a direct influence on the credit given to small business owners in Nigeria. A change in the lending rate will lead to rise in the credit given to small businesses and lending rate could predict and determine the volume of credit that will be given to the small business owners. It could be said that lending rate does not discourage small business owners from accessing loans from the financial institutions especially the deposit money banks. Furthermore, one of the important of macroeconomic variable is liquidity ratio. It is evidenced that liquidity ratio is a determinant to credit given to the small business owners. It determines the capacity of deposit money bank to given out credit to small businesses. The findings agreed with the findings of Ebire and Onmonya (2018); Eric (2017); Saghir and Aston (2017) but disagreed with the findings of Halim, et al (2017); Sun, Gan and Hu (2010)

The findings of the study align the assumption of credit channel theory that a change in the macroeconomic environment factors influence credit facilities to the small business owners especially via the bank lending channel. This is because the macroeconomic factors such as liquidity ratio, lending rate as well as exchange rate could determine the power of financial institutions basically deposit money bank to supply to the borrowers. It is indicated in the findings that interest rate and liquidity ratio are the only macroeconomic environment factors cause a direct change on the loan accessibility for small business operators

6 Conclusion

This study focused on macroeconomic environment and credit accessibility of small business operators in Nigeria. The study revealed that exchange rate has a positive but insignificant effect on credit to small businesses; lending rate and liquidity ratio have positive and significant effect on credit to small businesses. The study concluded that lending rate and liquidity ratio are the predictors and determinants for credit to small business in Nigeria. Thus, the study recommended that the controller of Nigerian economy should adopt measures to stabilise the country's foreign exchange. Also, Central Bank of Nigeria should continue with the way and manner at lending rate and liquidity ratio are being maintained. Also, the government through the apex bank should establish a commission or set up a committee that will oversee and monitor the credit to small business operators if the credits are judiciously utilized.

Practical Implication of the Study

The findings of the study will be significant to those that are connected to monetary policy strategies. These include the government, small business owners, the public as well as the prospective researchers. It will enable the government to review its existing macroeconomics policy in order to meet current economic condition. Also, the study will make the government to understand how effective the monetary policy strategies toward enhancing gross domestic product per capital. This study will assist the public to know the contributions of macroeconomics environment factors to accessibility of credit by businesses in Nigeria. This study will serve as a platform for prospective researchers for studies that are related to macroeconomics and credit accessibility.

Future Research Challenges

Further studies on macroeconomics environment factors can be carried out on the activities of multinational firms in Nigeria, financial sectors and with foreign direct investment

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APPENDIX

Data for the Study (Source: CBN Statistical Bulletin various years)

Year	Exchange Rate	Liquidity Ratio (%)	Lending Rate (%)	Credit to Small Businesses
1986	2.02	36.4	9.59	15701
1987	4.02	46.5	13.96	17,531.00
1988	4.54	45	16.62	24,602.30
1989	7.39	40.3	20.44	28,108.80
1990	8.04	44.3	25.3	32,912.40
1991	9.91	38.6	20.04	32,912.40
1992	17.3	29.1	24.76	20,400.00
1993	22.05	42.2	31.65	15462.9+E27
1994	21.89	48.5	20.48	20,552.50
1995	81.2	33.1	20.36	32,374.50
1996	81.2	43.1	19.84	42,302.10
1997	82	40.2	17.8	40,844.30
1998	84	46.8	18.18	42,260.70
1999	93.95	61	20.29	46,824.00
2000	102.1	64.1	21.27	44,542.30
2001	111.93	52.9	23.43	52,428.40
2002	121	52.5	24.77	82,368.40
2003	129.3	50.9	20.72	90,176.50
2004	133.5	50.5	19.18	54,981.20
2005	133.66	50.2	17.95	50,672.60
2006	128.65	55.7	16.89	25,713.70
2007	134.05	48.8	16.94	41,100.40
2008	132.37	44.3	15.13	13,512.20
2009	132.6	30.7	18.99	16,366.50
2010	151.09	30.4	17.59	12,550.30
2011	155.89	42	16.02	15,611.70
2012	158.84	48.3	16.8	13,863.50
2013	159.25	63.2	16.72	15,353.00
2014	164.88	38.3	16.55	22837.63
2015	195.52	42.3	16.85	11307.7
2016	253.49	46	16.86	12047.85
2017	305.79	49.1	17.55	789,227.12
2018	306.08	60.95	16.9	40,393.34
2019	306.92	75.83	15.38	57699.53