HOW DOES CREDIT TO SMALL SCALE ENTERPRISES AND THEIR OUTPUT AFFECTUNEMPLOYMENT IN NIGERIA?

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Abstract

Small scale enterprises are said to be the greatest provider of employment when aggregated while access to finance is viewed as an impediment to their growth. The study focused on the effect of bank credit to small scale businesses and their output on unemployment in Nigeria. The study covered the period of 1986 to 2018. The objective of the study is to investigate the influence of bank credit to small scale enterprises and their output on unemployment. It employed the Vector Error correction method of analysis. Findings reveal that both credit to small scale businesses and their output are not significant in explaining systemic changes in unemployment but reduced unemployment in the second period. The study recommends an increased credit to small scale businesses in Nigeria to enhance their output which will in turn reduce unemployment.

***Keywords**: small businesses, unemployment, Output,, Credit, Nigeria*

1.0 Introduction

The covert contributions made by small scale businesses have been vastly recognized in Nigeria in recent times. This is made manifest giving the increasing number of small scale business owners and policy consideration giving to them by government. Giving this recognition the Nigerian government has in the three decades initiated specific programmes aimed at assisting small scale businesses particularly in the areas of finance and provision of infrastructures. For instance, the Nigerian Industrial Development Bank (NIDB), establishment of Rural Banking Initiative, Nigerian Agricultural Cooperative Bank, National Economic Reconstruction Fund (NERFUND), Agricultural Credit

Guarantee Scheme Fund, Community Banking Scheme, Family Economic Advancement Programme, People's Bank were established, Microfinance Initiative (MFI), and Small and Medium Industries Equity.

Even though, small in size, micro, small and medium-sized enterprises process (MSMEs) are adjudged the most important enterprises in any economy. The evaluation is based on the consideration that when overall specific contributions made by MSMEs are aggregated, they outstrip contributions by large business enterprises.

SMEs have been considered as main wherewithal of the economy because of their capacity in propelling productivity and standard of living (Akingunola, 2011).Omonigho (2017); Taiwo, Falohun and Agwu (2016)observed that small business enterprises represent about 90 percent of all companies other than the white-collar job sector by adding value that develop variety of goods and services, generate employment, improve living standards and contribute significantly to gross domestic product (GPD) of global economies. It is apparent that SMEs play an important role in all OECD economies as they make up over 95 per cent of enterprises and account for 60 to 70 per cent of jobs in most OECD countries. In Nigeria, specifically, Peterise (as cited in Kadiri, 2012) posit that SMEs both in the formal and informal sectors employ over 60% of the labour force.

A major factor accounting for the survival of small scale enterprises is finance. It represents the hub on which the business revolves in terms of meeting their working capital, asset and expansion objectives. In the views of Okolie, Anidiobu and Ugwuanyi (2018), in contributing significantly to economic development, access to finance by MSME operators has become decisive since they rely so much on loanable funds. According to them, the problem is not just credit concerns it encompasses issues surrounding its availability, accessibility and cost elements linked to it.

A survey of literature show that several studies have been done in several aspects of small scale businesses in Nigeria. Many of these studies however focused on the contribution of SMEs to economic growth, effect of bank credit to SMEs growth,

difficulties faced by SMEs in assessing finance and infrastructure etc. From the foregoing, the objective of this study is to examine the extent to which Loans to SMEs and their own output affects unemployment. The study differs from Kadiri (2012) who studied SMEs finances and employment generation using binary logistic regression. A more recent study by Nnabu, Udeude and Egbeoma (2017) focused on credits to SMEs and unemployment but included interest rate and personal savings in their model. Okolie, Anidiobu and Ugwuanyi (2018) also examined entrepreneurship financing and unemployment. The study examined bank credit, lending rate and inflation in their model. This study differs from the rest considering the fact that binary regression is a weak tool of analysis. Again, in the study of Nnabu et al including credit and is interest may result to a problem of multicollinearity and personal saving is an integral part of the bank credit. Similarly, in the study of Okolie, Anidiobu and Ugwuanyi, the inclusion of lending rate in their model may also result to multi collinearity between bank loan and lending rate on one hand and between inflation and interest rate on the other. The study is significant since it reveals how bank loans to SMEs and their output will influence unemployment in Nigeria from 1981 to 2019.

2.0 Literature Review

2.1 Conceptual Literature

SMEs means different things in different countries; hence lacks unanimous definition among scholars Anigbogu, Okoli and Nwakoby (2015). According to United State Agency for International Development (as cited by Akingunola, 2011) problem of SMES identification is more acute in the developing countries because apart from the fact that, small and medium scale business are difficult to count, they are also difficult to measure individually, hence statistics on the number, size, geographical distribution and activities of enterprises and the SME sub-sectors are partial and highly unreliable. To ensure a functioning definition for SMEs, various criteria that affect different countries has been used as criteria. In the United States for instance, any firm that hires less than 500 employees are termed a small scale enterprise (Central Bank of Nigeria, 2014). In Uganda, firms with less than10 workers are micro enterprises, while those that engage between 50 and 100 are classified as medium scale enterprises. In India, business units

that employ 1 – 100 workers are seen as small scale enterprises. Balunywa (as cited in CBN, 2014) opined that the number of workers may not be ideal for designating a firm big or small, because entrepreneurial strategies vary for different economies. For instance, in countries that adopt high labour intake policy of industrialization like India, a typical MSME should have more workers than in a country where high capital input is the indicator as in most advanced economies. In that sense, the scholar posits that a capital requirement of between US$5,000 – US$50,000 would be considerable for a typical MSzE to function optimally.

Unemployment

The international Labour Organisation (as cited in Mohammed and Awe, 2005) defines unemployment as the number of economically active population who are without work but available for work and seeking work including those who have lost their jobs and those who left their jobs voluntarily. Accordingly, to them unemployed workers are those who are currently not working but are willing and able to work for pay, and have actively searched for work. Hence, unemployment rate measures the number of people actively searching for work as a percentage of the entire workforce. A rising unemployment rate in an economy results in high poverty level with related welfare problems (Ajibola, Ogundana and Ekure, 2018). High and persistent unemployment erodes individual self-esteem and life satisfaction, and confidence in the society as a whole (Ochsen and Welsch, 2011). Lower confidence and socio-economic deprivation, exclusion and marginalization from unemployment increase social dislocation, leading to unrest and conflict (ILO, 2011). Andrienko and Guriev (as cited in David Castells andRoyuela,2012) opine that high unemployment results in liquidity constraints, restricting labour migration and resulting in persistent unemployment and lower economic growth.

2.2 Theoretical literature

Output and Unemployment Theories

The classical theory, as analyzed by Pigou (1933) and Solow (1981), argues that the labor market consists of demand and supply of labor. Demand for labor is a derived demand, obtained from the declining portion of the marginal product of labor. The demand curve

is a negative function of real wage in that if wages increase the quantity demand for labor will decline and the opposite is correct. The supply of labor is derived from worker's choice whether to spend part of time working or not working (leisure). Supply of hours worked is a positive function of the real wage, because if the real wage rises, workers supply more hours of work. In equilibrium, demand and supply of labor are intersected at a clearing point that determines the equilibrium real wage rate and full employment.

Neoclassical economics assumes that the employer hires workers one by one. When she considers whether to hire an additional worker she compares the value of that worker's marginal product to the wage. As long as a worker's value of marginal product exceeds the wage, the worker is hired. But because the marginal product is diminishing, eventually so many workers will have been hired that the value of the marginal product of an additional worker would be less than the wage. At this point the hiring will stop. Of course, if at this point the wage rate were raised, some workers would get fired, because the value of the marginal product of at least some workers would be below the new wage.

The Credit Rationing Theory

Credit rationing theory developed by Stiglitz and Weiss (as cited in Okolie, Anidiobu and Ugwuanyi, 2018), was modeled on imperfect credit market otherwise attributed to a situation where parties to a contract lack equal information which compels banks to commit much cash and time resources to acquire facts about borrowers so as to monitor them. The theory assumes that when agency problem such as information asymmetry and moral hazards affect credit availability and the capital structure of new startup SMEs, the situation is seen as credit rationing. This theory assumes also the existence of numerous banks that compete to maximize profit by way of collateral and interest, as well as numerous prospective borrowers that strive to maximize their profit through their choice of projects.

Neoclassical theory of capital

According to the neoclassical economists, the process of hiring capital is exactly the same as that of hiring a worker. A unit of capital is added when the value of the marginal product of capital exceeds the rental price of capital and the process stops when, because of the decreasing marginal productivity of capital, the value of the marginal product of capital becomes lower than the rental price.

2.3 Empirical literature

David Castells and Royuela (2012) considered unemployment and income inequality, and interactions between both, as possible determinants of long run growth by using cross-sectional international data. The study employed ordinary least squares regression analysis. Results suggest that: while initial high unemployment rates do not seem to be statistically significant to explain long-run growth, they do have a negative and significant effect when interacting with increases in inequality. When we differentiate based on levels of urbanization, increasing inequality harms growth in countries with high levels of urbanization, as well as in countries with low levels of urbanization in which there is high and persistent unemployment.

Kadiri (2012) studied small and medium scale businesses and employment generation in Nigeria using the Binomial Logistic regression analysis as tools for statistical analysis. The study observes that the sector was unable to achieve this goal due to its inability to obtain adequate business finance for the sector. It was observed that virtually all the SMEs that were sampled relied on the informal sources of finance to start their business. Owolabi and Nasiru (2017) examined the relationship between deposit money bank credits to SMEs and each of unemployment and poverty using Pearson's correlation technique. The finding showed deposit money bank credits to SMEs related negatively and non-significantly with unemployment, and negatively and significantly relation between SME credit and poverty.

Okolie, Anidiobu and Ugwuanyi (2018) examined the effect of entrepreneurship (proxied by micro, small and medium scale enterprises) financing on unemployment rate in

Nigeria. The estimates indicated that bank credit to micro, small and medium scale enterprises (MSMEs) did not have positive and significant effect on the Nigeria employment market. The results also indicated that bank lending rate and inflation rate did not have positive and significant influence on unemployment rate. This implied that funds that accrued to MSMEs were not adequate as to stimulate activities in the subsector let alone reducing the high unemployment rate in the country during the review period. Afolabi (2013) evaluated the effect of SMEs financing on economic growth in Nigeria between 1980 and 2010 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

Omonigho (2017) assessed the effect of small and medium scale enterprises on economic growth in Nigeria from 1982 – 20212. Secondary data sourced from National Bureau of Statistics, CBN Statistical Bulletin, CBN Annual Report and Statement of Accounts was analyzed using Pearson Product-Moment Correlation Coefficient. The finding indicated that SMEs related positively and significantly with economic growth in Nigeria within the sampled period. Ezeaku, Anidiobu and Okolie (2017) assessed the effect of SMEs financing on manufacturing sector growth in Nigeria employing time series data from 1981 to 2014. The findings of the error correction model (ECM) indicated that SMEs financing had a positive effect on the manufacturing sector growth. The findings indicated that when credits to the SMEs improved by 1%, manufacturing output increased by 14.5%. The findings also showed that interest rate and inflation rate had a negative influence on manufacturing sector growth.

3.0 Materials and Methods

3.1 Theoretical Framework

This study is anchored on the Neoclassical theories of unemployment as well as on its theory of hiring capital. Both theories states that unemployment is determined by the

marginal product of labour while hiring of capital is dependent on the marginal product of capital. From the foregoing we state that that:

Unem = f (marginal product of labour, marginal product of capital)……1

3.2 Model Specification

From the above framework we introduce specific variables of this study to achieve the objective of this study. We hypothesize that Unemployment is determined by credit to SMEs and their outputs. Thus we state that:

Unem= f (credit, output)……..2

equation is transformed as follows:

$Unem = \lambda_0 + \lambda_1 CRE + \lambda_2 OPT$ ……3

Where

Unem = unemployment rate

CRE = commercial bank credit to SMEs

OPT= Small and medium scale enterprise output

The long run form of equation 3 in its log is given as

$Unem = \lambda_0 + \lambda_1 LNCRE_{t-1} + \lambda_2 LNOPT_{t-1} + \mu_t$.....4

Employing a VECM, we state the general form of VECM in equation 5 as follows

$\Delta V_t = \delta + \sum \lambda_t + \Delta V_{t-1} + \mu_t$…….5

Where;

V are vectors of stationary variables in the system, δ is a vector of constants, λ is the coefficients of the estimated variables.

$$Unem = \lambda_0 + \sum \lambda_1 \Delta LNCRE_{t-1} + \sum \lambda_2 \Delta LNCRE_{t-2} + \sum \lambda_3 \Delta LNOPT_{t-1} + \sum \lambda_4 \Delta LNOPT_{t-2} + \psi z_{t-I} + \mu_t \text{.....5}$$

Where ψz_{t-I} is the error correction term.

The study thus expects: $\lambda_1 < 0$; $\lambda_2 < 0$

Our model is adapted from the studies of Nnabu, Udeude and Egbeoma (2017) and Okolie, Anidiobu and Ugwuanyi (2018). These studies included lending rate and inflation and personal saving in their model. We modified these models on the assumption that personal savings is part of bank credit hence may result to multicollinearity. Also the

inclusion of interest rate and inflation may result to the same problem. Hence this study excluded these variables to consider small business output. The basis for this, is the neoclassical theory which states that output expansion will reduce unemployment.

3.3. Sources of Data

The data for this study are accessed from the CBN statistical bulletin and National Bureau for Statistics documents

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3.4 Method of Data Analysis

This study employs the vector error correction method of analysis. The choice of a short run method of analysis is dependent on the nature of our data. It is the most appropriate method considering the fact that the data are not all stationary at level hence a short run analysis. The VEC method also has the advantage of endogenizing all the variables thus we see how the variable influences each other.

4.0 Presentation and Analysis of Results

4.1 Presentation of Results

Table 4.1 Unit Root Test

Variables	Levels	Critical Value	First Diff	Order of Integration
CRE	-2.203	-2.957	-5.425	I(1)
OPT	-0.304	-2.960	-2.987	I(1)
UNEM	-2.687	-2.957	-3.427	I(1)

Source : Author's Regression Output

Table 4.1 is the unit root test. It shows that all variables are integrated of first difference. This condition necessitates a co-integration test presented on the table below

Table 4.2 Johansen Unrestricted Co-integration Rank test

No. CE	Trace Stat Val.	Critical Val.	Max Eigen Val.	Critical Val.
None	28.193	24.276	15.970	17.797
At most 1	12.943	12.321	8.630	11.225
At most 2	4.313	4.130	4.313	4.130

Source: Author's Regression Output

From the co-integration result above it could be seen that the trace statistic criterion returned a three co-integrating equation while the Max Eigen showed one co-integrating equation. This result therefore confirms along run relationship among the variables.

Table 4.3 Short Run Result with Unemployment as dependent Variable

Variables	Coefficient	T- stat	Std. Error
DUnem(-1)	0.1358	0.720	0.189
DUnem(-2)	-0.304	-1.590	0.191
DOPT(-1)	39.607	0.782	50.637
DOPT(-2)	-21.887	-0.412	53.133
DCRE(-1)	2.693	1.130	2.382
DCRE(-2)	2.047	0.903	2.267
C	-2.062	-0.451	4.568
Cointq	-0.220	-2.076	0.106
R-Square	0.385		

Regression Output Source: Author's output

The short run dynamics is presented in table 4.3 above. The result shows that increase in unemployment in the current period was due to own increase in the first lagged period while unemployment declined in the current period due to own increase in the second lagged period. It shows that unemployment in the previous periods is not significant in explaining changes on itself in the current period. Furthermore, output of small and medium scale businesses in both periods were not significant in explaining changes in unemployment. However, increased output of small scale enterprises increased unemployment in the first lagged period while it reduced it in the second lagged period. The results reveal that the second lagged result of unemployment and output conforms to the 'apriori' expectation. Furthermore, credit to small and medium scale businesses in Nigeria does not reduce unemployment and are not significant in explaining changes in unemployment. On the whole, the null hypotheses are accepted. However, the co-

integrating term conformed to theory. It shows that the model will return to equilibrium at the speed of 22 per cent.

4.4 The Impulse Response of Unemployment

Period	UNEM	LNOPT	LNCRE
1	14.84	0.00	0.00
2	13.46	2.28	0.97
3	5.14	1.50	0.85
4	3.27	0.75	-1.97
5	6.73	1.21	-3.65
6	7.86	2.62	-3.87
7	6.29	3.48	-3.72
8	5.38	3.93	-4.06
9	6.02	4.41	-4.34
10	6.60	5.01	-4.27

Source: Authors regression output

The impulse response function shows the effects of shocks on the adjustment path of the variables in the model. Generally, the IRFs show how variables in a model respond to different shocks in the model. The result as shown above revealed that unemployment responded to own shock up to the tune of 14.84 per cent but did not respond to innovation from any other variable with lowest own shock in the fourth period.

Unemployment responded positively to shock from small scale business output throughout the period with the lowest response of 0.74 in the fourth period. It responded negatively to innovations from bank credit from period four to ten and positively in period two and three.

Table 4.5 Variance Decomposition of Unemployment

Periods	S.E	Unem	Lnopt	Lncre
1	14.84	100.	0.00	0.00
2	20.18	98.49	1.28	0.23
3	20.90	97.91	1.71	0.39
4	21.26	97.00	1.77	1.23
5	22.62	94.47	1.85	3.68
6	24.40	91.58	2.74	5.68
7	25.71	88.49	4.30	7.21
8	26.87	85.03	6.08	8.89
9	28.22	81.62	7.96	10.42
10	29.72	78.52	10.02	11.46

Source: Author regression output

Table 4.5 above presents the decomposition position of unemployment. The forecast error decomposition is the percentage of variance of the error made in forecasting a variable due to specific shock. It tells us how much of a change in a variable is due to its own shock and how much shock is due to other variables. Usually, for the initial period forecast error variance is due to own shock, however, as the lagged effects begin to manifest the percentage of the effect of other shocks increases over time. The case is reverse with other variables. The result reveal hat own shock was 100 per cent in the first period and declined due to time lag. On other hand shock to due to other variables increased giving time lag. Variance error due to shock from bank credit was most influential while error due to shock from small business output was low

4.2. Discussions

The possible reason for the non-conformity of small scale businesses output to ‘apriori’ expectation in the first period but conformed in the second period could be attributed to the time lag. Economic theory postulates that economic units and the economy do not respond to policies instantaneously. A lag period is usually needed for economic policies and action to be effective. Also, a possible reason why credit to small scale business did

not reduce unemployment could be for reasons that have to do with timing of the loans, insufficient loans and other structural factors. The insignificance of the variables in explaining systemic change in unemployment could be attributed to high interest rate attached to the credit given to small scale businesses and delay in accessing the loans. A high interest credit will not expand output and in turn will not shrink unemployment. Other possible reasons could also be attributed to the insufficient infrastructure such as electricity that can enhance and expand production.

5.0 Summary, Conclusion and Recommendations

5.1 Summary

The study considered the effect of bank credit to small and medium businesses and their output on unemployment from 1986 to 2018. The vector error correction mechanism was employed for analysis. Variables were all stationary at first difference and a long run relationship exists among the variables. Results indicate that bank credit and small scale business output are not significant in explaining changes in unemployment. The variables however reduced unemployment in the previous period of the short run analysis and increased it in the current period. The Error correction term was in tandem with theory returning the model to equilibrium at the speed of 22 per cent

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5.2 Conclusion

Employing the vector error correction model to investigate how bank credit to small scale businesses in Nigeria and their output affects unemployment in a two lagged period, we conclude that bank credit to small scale businesses and their output are not significant in explaining changes in unemployment within the period covering 1986 to 2018. Increase in bank credit increased unemployment in both lagged periods while increased output increased unemployment in the first period but reduced it in the second period.

5.3 Recommendations

From the findings the study recommends increased bank credit to small businesses. Increased bank credit is key to small scale business output expansion and subsequent reduction in unemployment. Increase in small scale business output should continue considering the decline in unemployment rate in the second period. Increased output will increase revenue necessitating expansion and unemployment opportunities.

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