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THE IMPACT OF MONETARY POLICY ON SMALL AND MEDIUM SCALE ENTERPRISES (SMES) IN THE PERIOD OF ECONOMIC CRISES

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Abstract

The study examines how monetary policy affects small and medium-scale (SMEs) in Nigeria during 1991–2020. The paper shows how monetary policy variables, such as the interest rate, money supply and inflation rate, drive the relative outputs of the SMEs to GDP (SMEGDP). In line with theoretical consideration, the estimation includes other control variables including gross fixed capital formation and secondary school enrolment rate to represent proxies for capital and labour, respectively. The result shows that the Johansen cointegration establishes long-run relationship amongst the considered determinants of the SMEGDP. The study finds that the money supply and interest rate, respectively, have significant positive and negative impact on the SME outputs, whilst inflation rate produces adverse but insignificant effect on output. The magnitude and significance of interest rate is more than that of the money supply. Generally, the evidence suggests the need for policy to reposition SMEs. The paper recommends that there should be discretionary use of monetary policy in enhancing SMEs and efforts at promoting macroeconomic stability.

Keywords: Monetary policy; Small and medium-scale enterprises, Unit root analysis; Johansen cointegration.

JEL Class: D22, E58, G21, H63

1. Introduction

The paper is motivated due to the aftermath of global crisis, including the 2007 financial crisis and the recent COVID 19 pandemics, which adversely affected financial position of many firms and contribute to low economic growth (Acharya et al., 2018). The effects of such crisis have been well linked with monetary authorities' decisions to implement conventional monetary policy. During the economic crisis, because lenders become more balance-sheet-conditioned, the gain from monetary policy increases. Hence, expansionary monetary policy may strengthen balance sheets of firms by increasing cash flow net of interest and by raising the value of collateral assets (Kiyotaki & Moore, 1997; Corbisiero & Faccia, 2019). In such crisis, many countries suffer disproportionately from deteriorated credit worthiness, prolonged high inflation and lowers economic growth. There is evidence that the small- and medium-sized enterprises (SMEs) are mostly impacted

by the upheavals, especially in terms of lowered access to finance (Bańkowska et al., 2020).

For most economies, the high inflation, low economic growth and credit crunch that trailed these crises disrupted SMEs' operation, investment and business activities (World Bank, 2022). It is argued that faster growth will not be possible without a deepening of the financial system with more financial support to the SMEs. The banks remain highly liquid in many countries and reluctant to expand credit other than to the most credit worthy borrowers which in most cases excludes the SMEs. While Micro Finance Institutions (MFIs) have expanded vigorously in a number of countries, the size of their credit remains limited, so that their support is not on the scale needed for many small projects. The interest rate on micro-credits is very high, due to large administrative costs in relation to their scale of operations.

Nigeria has undergone different recessions, including the 1980s and 2015, as the global economic meltdowns of 2008. The various experience has motivated the government to rethink effectiveness her economic policies, and in particular, how such mitigate uncertainty and risks of firms categorized as SMEs. Despite this the economy is still inhibited by multifaced economic conditions including high inflation rates, low per capita income, currency depreciations, and poor industrial production, which have worked to generate instability and limit growth of SMEs. The SMEs encounters substantial challenges, some outside their control, and the challenges affect their survival, growth and contribution to the overall economy. Consequently, most SMEs continue to experience poor innovations or even collapse within few years of operations. Successive governments in Nigeria have, overtime, adopted, implemented and revised different fiscal, trade and monetary policies in order to create conducive environments for the SMEs to adequately contribute to growth as well as reposition the economy. As an apex financial body for funding the SMEs, the Central bank of Nigeria (CBN) regulating financial matters and institutions in the country and also pursuing the utmost fiscal responsibility within the country in the last three decades.

The paper considers the role of monetary policy to brings about expansion in the SMEs' outputs. Monetary policies include explicit actions taken by the government, through the monetary authorities, to control the supply and cost of money in circulation. The aim is to achieve planned macroeconomic objectives, including price stability, employment creation, exchange rate stability and economic growth. For Nigeria, the fact that the SMEs accounts for large employment in the economy makes them an important policy priority sector for the

transmission of monetary policy targets to real economy. However, it has been contended that the efficacy of these policies recognizes only small achievement. There is report that the principal problem constraining the growth in the outputs of the SMEs is that both past and present economic policy are not well tailored to SMEs, which in turn affect the quality of SMEs. This leaves several studies to examine the role of monetary policy on SMEs in Nigeria

Therefore, the impact of monetary policy on SMEs' outputs in Nigeria remains an important empirical question. However, for a more comprehensive evaluation for the SMEs, the paper follows an approach based on the Solow Swan growth model of SMES outputs, which has been widely ignored in previous studies (Afolabi et al, 2018; Osakwe, et al., 2019; Suleyman, 2014).

The paper aims to identify the various ways by which monetary policy regulation can impact on the effective and efficient performance of SMEs, while proffering practical solutions towards their development in Nigeria. Consequently, amongst others the paper pursues some underlined objectives (a) establishes likely long run connection amidst SMEs performance and attendant monetary policy key variables, and (b) verifies how monetary variables affect the outputs performance of SMEs. This paper is significant in the sense that, amongst others, it highlights relevance issues of SMEs in relation to monetary policy framework in Nigeria. Also, it will provide information on possible areas of improvement with a view of improving the SMEs in Nigeria.

The empirical estimation establishes cointegration, supposing significant existence of long run relationship. The study finds the conventional monetary policy via, the money supply and interest rate have respectively, significant- positive and negative impact on SMEs outputs, whereas the inflation rate produces an adverse but insignificant output effects. Moreover, the magnitude and significance of interest rate is more than that of the money supply. The findings suggest the need for monetary policy use to reposition productivity amongst the SMEs as well as promoting macroeconomic stability. For the rest of the study, section two is literature review, section three provides the methodology, section four presents the results, and section five is the conclusions.

2. Literature

The issue of whether monetary policy stimulates growth of SMEs outputs remains subject of empirical debates. A critical survey at extant evidence provides insights on the effectiveness of monetary policy for SMEs' growth. Some of the studies

relates to the relationship for advanced economies (Finnegan & Kapoor, 2023; Ferrando, 2023; Ferrando et al., 2022; Fu & Liu, 2015; Moreira et al., 2016).

Finnegan and Kapoor (2023) note that SMEs face credit crunch due to the large debt crisis in Europe. The authors use the ECB Survey on Access to Finance of Enterprises to examine the relationship between monetary policy and SME access to finance in “Greece, Ireland, Italy, Portugal and Spain”. The paper shows in stressed (non-stressed) countries, monetary policy significant (insignificant) raises the likelihood that SMEs with higher debt remain credit conditioned. The evidence suggests that risky firms are credit constrained, and that, during periods of analyzed, monetary policy is unevenly diffused to leveraged SMEs. Ferrando (2023) observes that monetary policy affects SMEs’ borrowing by inducing marginal costs, nonetheless, the policy potency may be constrained by market competition. The outcome shows that monetary policy eases shocks, and show that SMEs in less concentrated industries faced larger decrease in credit conditions compare to the contemporaries in more concentrated parts.

Ferrando et al. (2022) evaluate how announcement of the European central bank (ECB)’s monetary transactions package on SMEs’ access to finance based on dataset from eight countries in the Eurozone. The study finds that unconventional monetary policy enhanced firms’ potentials about the expected debt finance. Due to the announcement, credit and finance access in the zone improved relatively more for firm that borrow from banks with more balance sheet exposures. Moreira et al. (2016) examine Brazilian data to confirm the connection between monetary policy’s effective and expected short-term interest rates. The result support theoretical postulations that monetary authorities’ smooth the adjustments of the effective short-term interest rates, since the last ones drive the expected short-term rates, thereby inducing long-term interest rates, which are crucial for regulating the SMEs’ price changes and output activity.

Suleyman (2014) explores how monetary policy or credit channel in Turkey affects outputs of SMEs in the manufacturing industry from 2003 to 2011. The result indicates that, money supply has strong impacts on credit in Turkey. The rise in credit attributed to large companies has no effect on the credit transmitted to the SMEs. The outcome supports evidence of a reverse causality between credit amount of different size firms, as shown that the credit volume of large firms decreases, as credit of SMEs increases. Liu (2015) examine monetary policy effects of corporate investment, based on China's firms during 2005-2012, and finds faster

change in corporate investment adjustment expansionary compare contractionary monetary policy eras.

Adongo et al. (2020), for Kenya, investigate how monetary policy affects SMEs in agricultural sector, during 1981 to 2019. The evidence shows while money supply has a positive, the exchange rate has a negative influence on agricultural share of GDP performance. Bawuah et al. (2014) verify how interest rates affect SMEs' access to funds in Ghana. The evidence suggests that the majority of SMEs have experienced the use of equity financing. This is due to the leading influence of interest rates, amongst other factors. The interest rate is noted to have affected the financing choice of SMEs.

Some prior studies have shown the effects of monetary policy on the SMEs in Nigeria. Osakwe, et al. (2019) explore how monetary policy influence performance of the manufacturing sector, from 1986 to 2017. The estimated model shows that monetary policy has short-term impact on the manufacturing outputs. Afolabi et al, (2018) examine the link amid banks, loans, deposit money, and advances and monetary policy tools in Nigeria. The evidence finds that the monetary policy rate (MPR) is a key factor that determines the deposit money bank advances. There is a two-way link between MPR and the deposit money banks' loans and advances. Also, it shows that structural modifications to the policy framework impinges a considerable impact on loans and advances.

3. Methodology and Data

3.1 Model

According to previous studies, the paper estimates the augmented solow model (SSM) for the SMEs outputs in Nigeria (Moreira et al., 2016; Osakwe et al., 2019). The empirical model, shown by equation (1), model labour and capital as well as the monetary policy variables like interest rate, money supply and inflation rate as the determinants of economic growth.

$$Y = A (INFL, INT, M2) F(K, L) \quad (1)$$

Where the variable are: Output (Y), Inflation Rate (INFL), Interest Rate (INT), Money Supply (M2), Capital (K) and Labour (L). By incorporating policy variables to adapt to the study aim, equation (2) is the model with the interest rate channel for the SMEs:

$$SMEGDP_t = F(INTR_t, BMS2_t, INFL_t, GFCF_t, SSER_t) \quad (2)$$

The linear and empirical specification is:

$$SMEGDP_t = \beta_0 + \beta_1 INTR_t + \beta_2 BMS2_t + \beta_3 INFL_t + \beta_4 GFCF_t + \beta_5 SSER_t + \varepsilon_t \quad (3)$$

Where SMEs portion of GDP outputs ($SMEGDP_t$), interest rate ($INTR_t$), broad money supply ($BMS2_t$), inflation rate ($INFL_t$) and Gross Fixed Capital Formation ($GFCF_t$) and secondary school enrolment rate ($SSER_t$). Some studies use the interest rate (Adongo et al., 2020; Bawuah et al., 2014) and others use money supply (Osakwe, et al., 2019).

Based on a priori expectations, interest rate is expected to have negative coefficient, captures cost of capital to domestic businessmen and the higher is $INTR_t$, the lower rate of return from any investment made in SMEs. Broad money supply is expected to show up positive coefficient because increase in the money supply will more often reduce domestic interest rate, encourage investment and SMEs output contributions. Inflation rate reflects macroeconomic instability, hence its coefficient will be expected to be negative. During period of higher inflation rate, returns from investment are unpredictable and hence domestic investments are crowded out.

3.2. Estimation Procedure

This study utilises the regression analysis to explore the significant impact of various forms of monetary policies variables on the SMEs. Before the estimation, the paper subjects the variables to preliminary tests, including the stationarity stance and whether or not a long-run connection exists among them. As an a priori diagnostics, the paper considers both the ADF for the unit root test and the Johansen based cointegration. The first test, the unit root test, does examine the stochastic properties for the considered variables: $SMEGDP_t$, $INTR_t$, $BMS2_t$, $INFL_t$, $GFCF_t$ and $SSER_t$. The ADF model tests the significance of the coefficient (ϕ_1) of the system depicted by equation (4):

$$\Delta X_t = \phi_0 + \phi_1 X_{t-i} + \phi_2 t + \sum_{i=1}^m \phi_1 \Delta X_{t-i} + \Omega_t \quad (4)$$

Where Ω_t is the residual term. The test uses the null hypothesis of no stationarity, and the outcome would be expectedly, depict $x_t \sim I(1)$ and $\Delta x_t \sim I(0)$.

The second test, the cointegration, does examine whether a linear combination of two or more variables produces a stationary series regardless of the stationarity state of the variables at levels. The Johansen's approach, from Johansen (1988) is utilised

in the testing for long-run relationship. The test investigates the long-run relationship between $SMEGDP_t$ and attendant variables, $INTR_t$, $BMS2_t$, $INFL_t$, $GFCF_t$ and $SSER_t$. Johansen uses two likelihood ratio test for testing the number of co-integration vectors (r). The estimated eigenvalues need to be larger than the critical values, for the null to be rejected. The ECM is obtained and the various tests are evaluated. The data covers (1991–2020) and, while some (BMS2, INTR, GFCF) are sourced from the CBN’s bulletin, others (INFR, SSER) are sourced from World Development Indicators.

4. Data Analysis and Interpretation of Results

4.1. Estimation and Discussions

In this section of the study, we present the estimated models, analyse them and thereafter deduce the policy implications of the study. The OLS simply regressed the dependent variable – SMEGDP on the independent variables (GFCF, SSER, INT, M_2 and INFL) without any form of diagnostic test. The OLS obtains the parameter estimates by minimizing the sum squared residual. It is reported that if all the assumptions of the OLS were to be satisfied, the OLS parameter estimates will possess certain optimal desirable properties (see Iyoha 2004; Gujarati & Porter, 2009).

The estimated coefficients gives us the clue regarding the impact which each of the individual regressors will have on SMEGDP. As rightly observed, all the variables have negative influence on SMEGDP except GFCF and BMS2. Furthermore, the variables are statistically significant, though at various level of significance. Importantly is that if monetary policy rises over time, outputs of the SMEs would likely increase, whereas the evidence suppose that monetary policy, implemented via an increase in the interest rate, would adversely contribute to SMEs sector to gross outputs ratio.

Table 1: OLS estimation for $SMEGDP_t$

Variables	Coefficients	Std. Error	T-ratio	Prob.
<i>Const.</i>	564.48	342.04	1.6504	0.1109
$GFCF_t$	0.1550	0.0239	6.4794	0.0000
$SSER_t$	-10.425	1.4055	-7.4368	0.0000
$INTR_t$	-13.503	5.2082	2.5928	0.0260
$BMS2_t$	2.2141	6.6181	3.0584	0.0029
$INFL_t$	-6.9033	1.6138	-4.2776	0.0018
\bar{R}^2	0.8693			
<i>F-stat</i>	106.62			
<i>p(F-stat)</i>	0.0000			
<i>DW-stat</i>	1.9619			

Source: EViews Output, 2023.

The pass-through process shows that the interest rate drive larger part of the short and long run variation in output. Prior empirical analyses show interesting results. Some (Angbazo, 1997; Corvoisier & Gropp, 2002) reveal “in less competitive markets, banks might acts collusively, and thus, attain new equilibrium following any change in market rates. The degree of competition level in the financial structure disturbs the level of competition and, therefore, the interest rate pass-through. Cotharelli and Kourelis (1994) note that in interest rate channel, structural parameters including individual bank policies in relation to market share, market competitive structure (costs of switching bank), credit risk, business cycle, deposit structure, and interest rate instability make the pass-through incomplete. The paper finds that interest rates are more sticky in both the short- and long- run. Corvoisier and Gropp (2002) increases in banks competitions have a tendency to narrow lending margin, making them more reactive to market rates and thus, increase the degree and speed of the pass-through.

The \bar{R}^2 of 86.93% of systematic variation in SMEGDP is a result of deviations from the independent variables, hence the remaining 13.07% is caused by stochastic disturbance variables, idiicative of an impressive goodness of fit and significantly high predictive ability. The F-Statistics (106.62) with p -value = 0.0000 shows that at 1% a significant linear relationship exist between SMEGDP and its hypothesised determinants. The DW-estimate (1.961) shows that there is no autocorrelation.

Table 2: Unit Root Results

Variable	ADF Statistic	ADF C.V (5%)	Remark
Panel A: Level form (X_t)			
<i>SMEGDP_t</i>			
<i>GFCF_t</i>	1.9841	-2.9678	I(1)
<i>SSER_t</i>	-0.0310	-2.9604	I(1)
<i>INTR_t</i>	-1.9681	-2.9604	I(0)
<i>BMS2_t</i>	-3.8901	-2.9604	I(1)
<i>INFL_t</i>	2.9769	-2.9719	I(0)
Panel B: First Differenced (ΔX_t)			
Δ <i>SMEGDP_t</i>			
Δ <i>GFCF_t</i>	-3.3646	-2.9662	I(0)
Δ <i>SSER_t</i>	-5.1771	-2.99639	I(0)
Δ <i>NTR_t</i>	-5.3505	-2.9678	I(0)
Δ <i>BMS2_t</i>	-5.7349	-2.9678	I(0)
Δ <i>INFL_t</i>	-3.6148	-2.9718	I(0)

Source: EViews Output, 2023

Accordingly to the procedure, it is imperative that the stationarity state of each time series variables is examined. In literature, it is established that most time series variables are utilised in regression analysis, are not stationary in this state and when used in this state they may result in misleading interencing. Table 2 presents the level forms (Panel A) and first differenced form (Panel B) of the stationarity test. The summary of unit root results shows stationarity at 5%, based on comparing the Mckinnon (1996) critical values and the ADF statistics. Clear, only the interest rates and inflations rates are stationary, wheras others are homogenous of order one.

Table 3: Co-Integration Rank Test

Hypothesized No. of CE(S)	Eigen Value	Trace Stat	0.05 C.V	Prob.
Panel A: Trace Statistics				
None*	0.7838	136.30	95.753	0.0000
At Most 1*	0.7507	90.353	69.818	0.0005
At Most 2*	0.5765	48.679	47.856	0.0418
At Most 3	0.3405	22.901	29.797	0.2510
At Most 4	0.2925	10.414	15.494	0.2502
At Most 5	0.0011	0.0333	3.8415	0.8551
Panel B: Maximum Eigenvalue				
None*	0.7838	45.907	4.0776	0.0098
At Most 1*	0.7507	41.678	33.876	0.0048
At Most 2	0.5765	25.773	27.583	0.0837
At Most 3	0.3405	12.487	21.136	0.5004
At Most 4	0.2925	10.380	14.266	0.8188
At Most 5	0.0011	0.0333	3.8415	0.8551

Note: Trace (Max-eigen value) test shows 3 (2) co-integrating equation(s) at the 0.05 level. *Denotes rejection of the null at 0.05 level. **Mackinnon-Hang- Michellis (1999) values.

Table 4: Short-run ECM ($\Delta(\text{SMEGDP})$)

Variable	Coefficient	Std.Error	T-Stat	Prob
Constant	67.303**	27.897	2.4125	0.0238
ΔGFCF_t	0.1238*	0.0336	3.6869	0.0012
ΔSSER_t	6.1845	6.0268	1.0261	0.2475
ΔINTR_t	-3.5691*	1.0043	-3.6756	0.0000
ΔBMS2_t	1.8919**	10.864	-0.63441	0.0129
ΔINFL_t	-0.3789	0.10141	-3.7380	0.2051
ECM(-1)	-0.1309*	0.1283	-4.6280	0.0007
\bar{R}^2	0.7853			
F-stat	23.843*			
pr(F-stat)	0.0000			
DW-stat	2.0451			

Source: Author's computation (2023)

Table 3 reports the trace statistics (Panel A) and the Max Eigen values (Panel B). The Trace (Max-eigen value) test shows 3 (2) co-integrating equation(s) at the 0.05 level, supposing the variables are co-integrated and therefore, has long-run connections together. Next, the paper represent the ECM, which introduced to tie short-run dynamics and Long-run equilibrium value of SMEGDP.

The estimated coefficients gives us clue on the impact which the individual regressors has on the dependent variable. As rightly observed, GFCF has a positive coefficient (0.1238) and statistically significant at 1%. Thus, a unit increase in GFCF will cause SMEGDP to rise by 0.0012 units. Inflation rate has a negative coefficient (-0.1238). A unit rise in inflation rate will cause SMEGDP to fall by 0.1238 units, and this is statistically insignificant. SSER has a positive coefficient (6.1845) but it is not significant ($p = 0.2475$). The money supply variable, BMS2 has a positive and significant coefficient (1.8919). And the INTR has a significant, but negative coefficient (-3.5691). Moreso, the magnitude and significance of interest rate is more than that of the money supply. The empirical relationships shows that both magnitude and significance of interest rates is more that this of the money supply in the model for Nigeria. The ECM coefficient negative (-0.1309) and statistically significant ($p = 0.0007$). Overall, the study shows that monetary policy affects the SMEs' output.

The coefficient of ECM shows that 13.09% of the deviation of SMEGDP from its long-run equilibrium values will be reconciled per annum. Given this value, the speed of adjustment is slow. The \bar{R}^2 shows that about 78.53% variation in SMEGDP is due to the collective variation in the hypothesized determinats. Thus, the remaining 21.47% is due to the white noise. The adjusted coefficient of dtermination puts the explained variation at 63.165. the F-statistics (2.5069) shows that a linear significant relationship exists between SMEGDP and its included determinats. The DW test (2.0451) shows absence of first-order serial dependence.

4.2. Summary and Policy Implications

Amonst others, the implications of the results based on the monetary variables or targets considered are threefold. First, the study established the conventioanl monetary policy via, the money supply has significant positive impacts on SMEs outputs. The insinuation is such that if the monetary authority continues to increase the money supply, the deposit money banks is signal to reduce their lending rate, therefore allow investors to access adequate loans for investment in the SMEs. The outcome is consistent with evidence (Adongo et al., 2020).

Second, the study finds the monetary policy, via interest rate, has significant negative impact on SMEs outputs. Instructively, broad money supply has no significant impact on SMEs. The would be amplify via sustaining stable interest rates via the monetary policy, and reinforce budgetary assistance for the sector, and ensure the SMEs outputs potential is fully fulfilled. The adverse effects may further be complicated by other challenges to the SMEs' growth including "hinderances of inadequate infrastructure, poor access to finance, incidence of multiple taxation, prevalence of multiple regulatory agencies, which can be attributed to poor and inconsistent fiscal and monetary policy development initiatives by government".

Thirdly, for the monetary target of inflation rate, the paper reveals that inflation rate has adverse but not significant effects on the gross outputs of the SMEs sector. Thus, an environment of high inflation rate creates uncertainty, which may distort the business decision of SMEs. Repositioning the monetary policy to ensure appropriate inflation control would ensure SMEs stocks are not affected and their outputs potentials. In addition, since gross capital positively and significantly impact on SMEGDP because physical capital is essential to the performance of SMEs. Secondary School Enrolment rate has positive coefficient though, but it is not significant. This provokes the understanding that so many secondary school leavers have not made significant contribution to SMEs in Nigeria.

5. Conclusions

The study examines monetary policy impacts on SME businesses in Nigeria. The use of statistical techniques help to explore the impact of various forms of policies on SMEs mostly, the monetary policy. The study finds that the variables at levels were not stationary, but became stationary their first differences form. The evidence from the cointegration establishes cointegration amongst the determinants of the SMEGDP, hence, supposing significant existence of long run meaningful relationship exist among them. The study finds the conventional monetary policy via, the money supply and interest rate have respectively, significant- positive and negative impact on SMEs outputs, whereas the inflation rate produces an adverse but insignificant output effects.

Moreover, the magnitude and significance of interest rate is more than that of the money supply. Based on the estimated output, further findings include (a) the gross fixed capital formation has positively and significantly impact on SMEs (b) the secondary school enrolment rate though positively impact on Contribution of SMEs to the Gross Domestic Product, but it is insignificant (c) inflation rate both negatively and significantly impact on contribution of SMEs to the gross domestic.

The study proffers recommendations that we believe will not only position SMEs for optimal performance but will enhance their contribution to the GDP. First, there is need for adequate provision of basic infrastructures. The performance of SMEs has been severely hindered by the shortage of infrastructures which among others include good road network, telecommunication, power supply etc. power supply is of the utmost importance. The erratic power supply has constituted a serious obstacle to effective performance of SMEs. Several SMEs have initiated their own power supply but at a very costly arrangement. Some SMEs that cannot survive has gone underground and shortage of power supply is a major reason for such high level of corporate fatality among Nigerian SMEs. Against this backdrop, there is urgent need to increase the Mega Watt installation so as to increase the supply of power to Nigerian SMEs.

Second, there is need for adequate training of manpower for all SMEs. Nigeria over the years has experienced a large turnout of manpower at all levels. However, one thing is clear that most school leavers don't have the appropriate knowledge to function in the world of business, hence the impact of labour on SMEs is insignificant. The necessary action therefore is to train Nigerian students by funding them with business and ICT-related knowledge. Thirdly, regulators should ensure the promotion of macro-economic stability. A stable macro-economy characterized by stable price, exchange rate stability, full employment etc is a prerequisite for a well and optimal performing SMEs. Macro-Economic stability can only be achieved through effective policy co-ordination. Lastly, Policy makers should practice discretionary use off monetary policy. Monetary policy should be articulated towards improving the performance of the SMEs. Incentives that will stimulate SMEs should be initiated.

Although the study has shown an important effect of monetary policy on outputs, however, data limitations prevent exploiting that may be of policy relevance. For instance, future studies may want to consider the asymmetric evidence for the analysis on the basis of a higher frequency data. In addition, future studies should consider the implications of each policies design, especially, through a survey and impact study on SME outputs. Lastly, since monetary policy can affect SMEs financing access and decisions, future studies may explore these aspects for Nigeria. Future research can greatly share investigative lights on these promising areas.

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