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The Impact of Micro, Small and Medium-Scale Enterprises (MSMEs) Financing on Economic Welfare in Nigeria

Wisdom Selekekeme Krokeyi[1], Ebikabowei Biedomo Aduku[2], Ogochukwu Christiana Anyanwu[3]

[1]*Department of Economics, Faculty of Social Sciences, Niger Delta University, Bayelsa State - Nigeria*
[2]*Department of Economics, Nnamdi Azikwe University, Awka - Nigeria*
[3]*Department of Economics, University of Nigeria, Nsukka - Nigeria*
Email: selekekeme2000@gmail.com

Abstract
The study examines the effects of Micro Small and Medium-Scale Enterprises (MSMEs) financing on economic welfare in Nigeria and to also determines whether or not private sector-led institutions MSMEs financing and government MSMEs intervention funding are complementary or substitutes. Micro Small and Medium-Scale Enterprises (MSMEs) financing were measured by government loan to MSMEs, while economic welfare is measured by per capita income. The autoregressive distributed lag (ARDL) model was employed in analyzing the data. We find a positive and statistically significant effect of MSMEs financing on economic welfare in the long and short run. Government intervention funding had a positive and statistically insignificant effect on welfare. It was also found that government MSMEs intervention funding and the private sector-led institutions MSMEs financing were substituted in the long run but in the short-run, government MSMEs intervention funding and the private sector-led institutions MSMEs financing had an insignificant complementary effect on economic welfare. Other variables such as the external debt and population play some diverse roles in enhancing economic welfare in the long and short run. We recommend encouraging private sector-led institutions MSMEs financing by making it conducive for the private sector-led institutions to finance MSMEs.

Keywords: Private Financing, Government, Funding, MSMEs Financing, Economic Welfare

1.0 Introduction

Economic welfare improvement, which is about improving the wealth equality and quality of life of people among others (Ahmed, Alhassan, Alshammari & Ogbonna, 2017) is a source of concern in most developing economies such as Nigeria has become a national goal featured consistently in the national development plans in the past decades. In recent times, there has been an intensified clamouring for the prioritization of economic welfare improvement, which is triggered by the deteriorating welfare conditions. In 2019, about 40% of the population, which is approximately 83 million people live below the ₦137,430 or $381.75 per year poverty line (World Bank, 2020). Unemployment and inequality in income and opportunities seem to be increasing on yearly basis. For

example, World Bank (2020) reported approximately 7 million newly poor in 2020. Employment generation and income equity improvement for economic welfare enhancement are not automatic, and the government alone cannot achieve that in the short run. This awareness is also a reason for the increase in policies and support for private sector growth. In this regards, a key policy area in the literature is entrepreneurship development, especially Micro Small and Medium-Scale entrepreneurship. In Nigeria, the number of MSMEs is estimated to be between 10 to 50 million (Ketley, 2012). But a key challenge of Micro Small and Medium-Scale entrepreneurship is finance.

The cost of doing business is high in Nigeria because of infrastructural costs as well as unfavourable economic conditions, which force most enterprises to depend on government finance and other forms of external funding for survival. MSMEs are constrained in access to formal finance than large firms. It is estimated that just about 5% of lending from deposit money banks gets to Micro Small and Medium-Scale Enterprises (MSMEs) (Ketley, 2012). MSMEs financing has never been completely ignored in Nigeria by any past administration for decades. Every government regime offered one form of support or the other, ranging from financial intervention to technical assistance and even policies aimed at establishing a conducive business environment. The intervention measures are grouped into three categories by Obaji & Olugu (2014).

MSMEs have not recorded meaningful success in entrepreneurship growth and its role in welfare improvement, in particular, is yet to be derived as it ought to be. The country still hosts most of the extremely poor, with increasing vulnerability to poverty and poor standard of living. Most MSMEs barely survive beyond five years of existence. The most common complaint among others is still lack of finance. The financing measures have not in any way seemed to have brought the desired level of MSMEs development and, the economic welfare improvement role of MSMEs in Nigeria. Therefore, it is most likely that there is an existence of a gap between the implementation of government MSMEs finance measures and the eventual achievement of its expected outcomes

Nwokoye, Metu, Aduku & Eboh (2020) specifically pointed out economic welfare improvement as the most ideal benefits of Micro Small and Medium-Scale entrepreneurship growth and development in developing countries. Without welfare improvement, especially economic welfare, the usefulness and the achievement of other benefits of Micro Small and Medium-Scale entrepreneurship is limited. All other benefits such as employment generation lead to economic welfare improvement.

This study, therefore, empirically examines the effect of MSMEs financing on economic welfare in Nigeria based on the framework of the neoclassical growth theory. It also determines whether or not private sector-led institutions MSMEs financing and government MSMEs intervention funding are complementary or substitutes. The study is of great policy relevance as it provides empirical evidence on MSMEs and economic welfare, which will serve as a motivation for policy enhancement and will, set a direction for appropriate contemporary MSMEs financing measures necessary for MSMEs that will enhance their economic welfare role. The MSMEs, the monetary and fiscal policy authorities, and those in academia will benefit from this study.

2.0 Review of Extant Literature

2.1Conceptual Literature Review

Micro Small and Medium-Scale Enterprises (MSMEs)

There is no conventional definition of the concept of Micro Small and Medium-Scale Enterprises. This is due to variations in the classification of MSMEs by different authors and governments of countries and agencies. The basis for its classification according to Nchege & Aduku (2019) is on criteria such as the number of employees, assets value and investment or volume of sales turnover. In essence, despite the differences in the conceptualization of MSMEs, the conception of MSMEs is within the three common classifications as grouped by Nchege & Aduku (2019). In line with the definition proffered by the Central Bank of Nigeria, Oloketuyi (2012) defined MSMEs as enterprises that have an asset base between N5 million to N500 million excluding land, and, a labour force of between 11 to 300 people. Micro enterprises are grouped to have 0 to 10 employees, while small and medium scale enterprises have 10 to 49, and 50 to 199 employees respectively. The annual turnovers are 0 to 10 million, 10 to 100 million, and 100 to 500 million respectively for micro, small and medium scale enterprises (Ketley, 2012).

Gulani & Usman (2012) describe MSMEs as enterprises with at least 5 employees and not less than N5, 000.00 capital outlays. However, a quite different definition is proffered by Clementina, Nnachi, & Egwu (2014). They stated that MSMEs are enterprises that may not be under public accountability, and, may not have debt or equity instruments traded in a public market. At this point, we can say that the definition of MSMEs is dependent on the objectives of the researcher, which determines defining MSMEs based on the number of employees, assets value and investment or volume of sales turnover. In this study, we defined MSMEs following the definition of Oloketuyi (2012), which is similar to that of the Central Bank of Nigeria.

Micro Small and Medium-Scale Enterprises Financing

MSMEs financing can be described as the structure of credit or capital provided to MSMEs to finance the growth of their entrepreneurship business. Three basic means or sources through which entrepreneurial activities are financed are owner's equity, debt financing or equity financing. Owner's equity financing is described by Moses, Oluwafunmilayo & Onochie (2015) as a financing source from personal savings, borrowings from friends and relations as well as profit ploughed back to the business. Though this financing option has the advantage of the low cost of raising it, it is in most cases a small amount that may not be sufficient for the operation of the business. It could also contribute to a fall in welfare especially in the short run. Debt or equity financing is borrowings from outside, either formally or informally. The payback period and the cost of the transaction determined by the loan terms, sources and the procedures involved in acquiring the loan. Sources of funds under this classification include bank loan, bank overdraft, and trade credit among others. The focus of this study is bank credit financing of MSMEs. Bank credit financing is a loan granted by a bank to MSMEs. This can be provided by the government through banks or by financial institutions directly. Bank credit financing can be short term, medium-term or long term. Collateral security and guarantor(s) is in most cases a necessary condition for qualification for access to bank credit.

MSMEs financing efforts in Nigeria include the establishment of Nigeria Industrial Development Bank (NIDB), National Economic Reconstruction Fund (NERFUND), Nigerian Bank for Commerce and Industry (NBCI) and the Small Scale Industry Credit Scheme (SSCICS). Owenvbiugie & Igbinedion (2015) stated that the establishment of the Bank of Industry in 2001 marks the merging of these financial institutions. Some of the aims of the Bank of Industry are providing financial assistance for setting up small, medium and large projects for entrepreneurship growth, assist entrepreneurship expansion, diversification and modernization as well as the rehabilitation of troubling industries.

Economic Welfare

Welfare is a collection of activities by government agencies and voluntary organizations that prevent alleviation or offer a solution to problems or facilitate the wellbeing of individuals (Ahmed, Alhassan, Alshammari & Ogbonna, 2017). Welfare is categorized into economic and social welfare. The focus of this study is economic welfare. Economic welfare comprises of all factors that affect the income of an individual – factors that are related to money. It could also be referred to as improvement in the livelihood of individuals in terms of education and health, equality in income and wealth and security. Economic welfare is measured by per capita GDP, which is the income that accounts for the individuals of a country.

2.2Empirical Literature Review

Several studies have been carried out in the area of the study. For example, in Zimbabwe, Watambwa & Shilongo (2021) examined the contribution of SMEs financing towards economic growth from 2015 – 2019. The Multiple Linear regression techniques were employed by the authors. It was found that SMEs financing have a significant positive effect on Economic Growth (GDP).

Similarly, Adebiyi, Banjo & Regin (2017) examined the impact of finance on the performance of small and medium enterprises in Lagos State. 250 SME respondents were used for the study, while the Pearson correlation and regression analysis techniques were employed to analyze the data. The findings showed a positive relationship between SME finance and business performance. The study also showed a significant relationship between financial management practices and the performance of SMEs. Empirical studies in this area include Nwakoby, Kalu & Asika (2017). The study examined the effect of government SME financial incentives on the economic growth of Nigeria from 1999 – 2015. The simple ordinary least square (OLS) technique was adopted to analyze the data. The findings showed that SME loan and government expenditure had a significant impact on real GDP. Ezeaku, *Anidiobu & Okolie (2017) examined the impact of* SMEs financing on manufacturing sector growth in Nigeria from 1981 – 2014 using the Engel and Granger cointegration and the error correction approaches. The study found SMEs financing to have a positive effect on the manufacturing sector growth. Using Keffi and Mararaba Metropolis as a case study, Oaya & Mambula (2017) examined the effect of SMEs financing on business growth in Nigeria using a descriptive technique like simple correlation and percentages. 171 respondents were selected for the study. The study found access to finance to be sine qua non for entrepreneurship success and development. They also found that interest rate on SMEs loans and advances did not hinder the SME ability to borrow. Adelekan,

Arogundade & Dansu (2016) studied the specific financing options available to SMEs in Nigeria and their contribution to economic growth using the Asymmetric auto-regressive distributed lag (ARDL). The study covered the 1981 – 2014 sample periods. The findings showed insignificant direct relationship finance for SMEs and Real Gross Domestic Products. This finding was attributed to the inefficient mobilization of funds to SMEs to enhance their growth.

Employing the Ordinary Least Square (OLS) estimation technique, Akanbi, Akin & Sodiq (2016) examined the specific financing options available to SMEs and their contribution to the economic growth of Nigeria from 1981 – 2012. The study found an insignificant direct relationship between SMEs financing and Economic growth. Using the Ordinary Least Square (OLS) technique, Afolabi (2013) examined the impact of SMEs financing on economic growth in Nigeria from 1980 – 2010. Wholesale and retail trade output were used to proxy SMEs output, while commercial banks' credit was used to measure SME financing. The results of the study showed that SME financing had a positive and significant effect on SME output. It was also found that the lending rate hurt economic growth. Using a linear regression model and granger causality test, the role of Small and Medium Enterprises (SMEs) in the achievement of economic growth in Nigeria was examined by Eigbiremolen & Igberaese (2013). A positive impact of SMEs on economic growth was found. Also, the study found a unidirectional causal relationship running from SMEs to economic growth. Covering the 1992 – 2009 sample periods, Onokoya, Fasanya & Abdulrahman (2013) examined the impact of financing small scale enterprises on economic growth in Nigeria. The study employed the OLS technique to analyse the data. It was found that loan to SMEs had a positive impact on the economic performance while interest rate harmed economic growth. Using Benue and Nassarawa states as a case study, Azende (2011) examined the performance of small and medium scale Enterprises, Equity Investment Scheme (SMEEIS) in Nigeria. The study covered the 1993 – 2008 sample periods. Credit to SMEs as a percentage of Banks' total credit was used to proxy SMEs financing before and after the introduction of SMEEIS. The study found no significant difference in SMEs financing before and after the introduction of SMEEIS. In Lagos State, Nigeria, the impact of small and medium scale enterprises in the generation of employment was examined by Morenikeji & Oluchukwu (2012). A sample of 150 respondents was employed by the authors. The data were analyzed using descriptive techniques such as the simple percentage and chi-square techniques. It was found that SMEs increase employment in the study area. It was also found that SMEs bring about economic development.

There are several studies on this area of research. However, most of the studies at the macro level examined the impact SMEs on economic growth. None, especially in Nigeria, has examined the welfare effect of SMEs financing. Also, previous studies have not examined whether or not private sector-led institutions MSMEs financing and government MSMEs intervention funding are complementary or substitutes. This is necessary, given the fact that governments of developing countries including Nigeria have been supportive to ensure that SMEs are adequately financed for growth and development. Though SMEs financing especially from the public sector seems not to have to complement private sector-led

financing as SMEs complain of a shortage of finance as well as lack of access to finance. Thus, by examining the effect of MSMEs financing on economic welfare, and determining the complementarity or otherwise of private sector-led institutions MSMEs financing and government MSMEs intervention funding on effecting economic welfare, this study add value to the literature in the area of the study.

3METHODOLOGY

3.1Theoretical Framework

The study adopts the neoclassical growth theory to be the framework of analysis. The theory shows that the level of output depends on labour, capital and technological progress. The model is presented as (Oyeniran, David & Ajayi, 2015):

$$Y = AK^{\alpha}L^{\beta} \quad \ldots(1)$$

where Y is the output growth and k and L are capital stock and labour endowment. A is total factor productivity, which is technical process or innovation or productivity of existing technology.

Entrepreneurs contribute to economic performance through technological progress and innovation. For this reason, A, which is the total factor productivity, is substituted with MSMEs growth and development. For this study, it is measured by MSMEs finance. That is:

$$A = (\mathrm{MSMEF}) = \mathrm{MSMEF}^{\varphi} \quad \ldots(2)$$

Where MSMEF is MSMEs finance (measured by bank loan to MSMEs). For this study, output growth is taken to be economic welfare (ECOWEL), justified on the basis that a performing economy brings about economic welfare improvement. Per capita income is used in measuring economic welfare following Edeme (2019). We substitute equation (2) into (1) and represent the capital stock (K) with external debt stock (EXD), labour (L) with population growth rate (PGR) and output growth (Y) with economic welfare $(ECOWEL)$. Thus, we re-write equation (1) as:

$$ECOWEL = \mathrm{MSMEF}^{\varphi} EXD^{\alpha} \mathrm{PGR}^{\beta} \quad \ldots(3)$$

Equation (3) is in non-linear form. To make the equation linear, we take the logs of equation (3) as:

$$ECOPERF = \varphi \mathrm{msmef} + \alpha exd + \beta \mathrm{PGR} \quad \ldots(4)$$

The variables in small case letters are logged variables. Economic welfare ECOWEL and population growth rate are not logged since the variables are already in rates. The parameters, φ, α, and β measure the output elasticities of MSMEs, capital and labour respectively.

3.2Variables, Data and Data Sources

The data for this study is annual data that covers 1981 to 2019 sample periods. Data was sourced from the Central Bank of Nigeria statistical bulletin, various issues.The dependent variable is economic welfare, measured by per capita income. The core independent variable is MSMEs finance, measured by government loan to MSMEs. To capture the government MSMEs intervention funds, established to complement the private sector-led institutions, we choose two interventions (the Small and Medium Enterprises Equity Investment Scheme – SMEEIS from 2001 – 2009; and the N200 Billion Small and Medium Scale Enterprises Credit Guarantee Scheme – SMECGS from 2010 – 2013) and measure with a dummy variable. The periods from 2001 to 2013 takes the value of 1, while the other periods within the period of the study take the value of zero. SMEEIS and SMECGS are selected because they are among the most common and most successful interventions by the federal

government. The other variables in the model include external debt stock and population growth rate.

3.3Empirical Model

The functional form of the model is:

$$ECOWEL = f(\text{MSMEF}, EXD, \text{PGR}) \quad \ldots(5)$$

Where $ECOWEL$ is economic welfare – measured by per capita GDP, while MSMEF is MSMEs finance. EXD and PGR are external debt and population growth rate. To capture the complementarity or otherwise of the effect of government MSMEs intervention funds and the private sector-led institutions MSMEF finance on economic welfare, we include in the model a measure for interventions – government interventions (GOVINT) and interact with MSMEF as:

$$ECOWEL = f(\text{MSMEF}, EXD, \text{PGR}, \text{GOVINT}, \text{MSMEF} * \text{GOVINT}) \quad \ldots(6)$$

All the variables remained as defined above. $\text{MSMEF} * \text{GOVINT}$ is the interaction of banks' loan to MSMEs and government MSMEs interventions finance. GOVINT is government interventions (the Small and Medium Enterprises Equity Investment Scheme – SMEEIS from 2001 – 2009; and the N200 Billion Small and Medium Scale Enterprises Credit Guarantee Scheme – SMECGS from 2010 – 2013) that takes the value of 1 for the periods from 2001 to 2013, capturing the selected interventions periods. The interacted term, $\text{msmef} * \text{GOVINT}$ measures the complementary or the substitution effects of the interventions. The decision between substitutability and complementarity is dependent on the sign and significance of the interaction coefficient. If the coefficient for banks loan to MSMEs is positive and the coefficient for the interaction term is negative, then, banks loan to MSMEs better promotes MSMEs growth and economic welfare in the absence of government special interventions. In this case, the banks' loan to MSMEs and government MSMEs interventions finance effect on welfare are substitutes. On the other hand, if the banks' loan to MSMEs coefficient is negative and the interaction term is positive or if both are positive and statistically significant, then, banks' loan to MSMEs and government MSMEs interventions finance jointly lead to MSMEs development and welfare improvement. In this case, complementarity exists.

We take the log of the variables and rewrite Equation (6) in an autoregressive distributed lag (ARDL) form as:

$$\begin{aligned} ECOWEL &= \alpha_0 + \alpha_1 ECOWEL_{t-1} + \\ &\alpha_2 \text{msmef} + \alpha_3 exd + \alpha_4 \text{PGR} + \\ &\alpha_5 \text{GOVINT} + \alpha_6 \text{msmef} * \text{GOVINT} + \\ &\sum_{j=1}^{p} \phi_j ECOWEL_{t-j} + \\ &\sum_{s=0}^{q} \rho_s \text{msmef}_{t-s} + \sum_{m=0}^{q} \delta_m exd_{t-m} + \\ &\sum_{z=0}^{q} \psi_z \text{PGR}_{t-z} + \sum_{z=0}^{q} \vartheta_z \text{GOVINT}_{t-z} + \\ &\sum_{z=0}^{q} \varphi_z \text{msmef} * \text{GOVINT}_{t-z} + \mu_{2t} \end{aligned} \quad \ldots(7)$$

The small lettered variables are logged variables. The capital lettered variables are not logged because the variables are already in rates. The different terms in the model are the short-run variables while the lag terms represent the long-run process. μ_{2t} is the error term while a_i (i = 1,2,3, …7) and $\phi, \rho, \delta, \psi, \vartheta$, and φ is the long and short-run coefficients of the respective variables. The optimal lag length is to be chosen using Akaike information selection criteria.

A merit of this model is that it has a small sample property and gives an unbiased

estimate of the long-run process and valid t-statistics even if most of the regressors are endogenous. It is also applicable when the underlying regressors are stationary at I(0) or I(1) or a mixture of both. As stated by the Granger representation theorem, if there is cointegration among the regression variables, then there is a mechanism (to be measured by an error correction model) that describes the adjustment of the cointegrated variables towards equilibrium. On this basis, we specify an error correction model as:

$$\sum_{j=1}^{p} \phi_j ECOWEL_{t-j} + \sum_{s=0}^{q} \rho_s \text{msmef}_{t-s} + \sum_{m=0}^{q} \delta_m exd_{t-m} + \sum_{z=0}^{q} \psi_z \text{PGR}_{t-z} + \sum_{z=0}^{q} \vartheta_z \text{GOVINT}_{t-z} + \sum_{z=0}^{q} \varphi_z \text{msmef} * \text{GOVINT}_{t-z} + \mu_{2t} \quad \ldots (8)$$

Where ECM1_{t-1} is the error correction term. With the determination of the order of the ARDL, the models can be estimated using the Ordinary Least Square (OLS) estimation method. The OLS method of estimation is considered the Best Linear and Unbiased Estimator –BLUE. The estimation begins with the test of stationarity of the variables using the Augmented Dickey-Fuller (ADF) and *Philips Peron (PP)* unit root tests. The long-run relationship among the variables was also determined using the Bound's test approach. Pesaran, Shin & Smith (2001) tabulated two critical value sets, with the assumption that the variables are I(1) and I(0). If the F-statistics lies outside the upper level of the band, the null hypothesis of the non-existence of long-run relationship among the variables would be rejected, this signifies co-integration. However, if the F-statistics lies below the lower level of the band, then is said that there are no cointegrating equations. But, if F-values lie within the upper and lower bands, then, the presence or absence of cointegration would be unattainable.

4Results

4.1Unit Root Test

The variables were tested for stationarity using the Augmented Dickey-Fuller and Phillips-Perron unit root tests. Table 1 provides the results of the tests.

Table 1:Augmented Dickey-Fuller and Phillips-Perron unit root test

Panel A					Panel B				
Augmented Dickey-Fuller Test					Phillips-Perron Test				
Variable	ADF – Statistic		Lag	~I(d)	Variable	PP – Statistic		Lag	~I(d)
	Level	1st Diff.				Level	1st Diff.		
msmef	-1.641	-3.823*	2	I(1)	Msmef	-1.630	-4.318*	2	I(1)
exd	-1.473	-3.729*	2	I(1)	Exd	-0.783	-3.883*	2	I(1)
POPG	-3.901*	-	2	I(0)	POPG	-4.857*	-	2	I(0)
GOVINT	-1.234	-3.624*	2	I(1)	GOVINT	-1.319	-5.950*	2	I(1)
GOVINT*msmef	-2.568	-4.628*	2	I(1)	GOVINT*msmef	-2.009	-5.234*	2	I(1)
ECOWEL	-1.533	-2.117*	2	I(1)	ECOWEL	-2.260	-3.833*	2	I(1)

Where * denotes significance at 5% and the rejection of the null hypothesis of the presence of unit root. The optimal lag lengths were chosen according to Akaike's final Prediction Error (FPE) criterion. The estimated unit root models include trend. The ADF 5% Critical value at the level is -3.556 and, at 1st difference is -3.560. On the other hand, the Phillips-Perron Critical value at the level is -3.548 and, at the 1st difference is -3.552.

Source: Authors' computation using STATA 16

The Augmented Dickey-Fuller and the Phillips-Perron tests showed that all the variables are stationary at 1st difference except the population growth rate, which is stationary at the level. This indicates that the population growth rate is integrated of order

(0), while the rest of the variables is integrated of order (1). Since the variables show a mixed order of integration, in the next section, we went ahead to test for the long-run relationship among the variables using the Pesaran/Shin/Smith (2001) ARDL bounds test.

4.2Long-Run Economic Welfare Effect of Micro Small and Medium-Scale Enterprises

The long-run relationship among the variables was tested using the bound's test and the result is provided in Table 2.

Table 2: ARDL Bounds test result for a long-run relationship

Critical Values (0.1-0.01), F-statistic, Case 3							
90%		95%		97.5%		99%	
I(0)	I(1)	I(0)	I(1)	I(0)	I(1)	I(0)	I(1)
2.26	3.35	2.62	3.79	2.96	4.18	3.41	4.68
Critical Values (0.1-0.01), t-statistic, Case 3							
90%		95%		97.5%		99%	
I(0)	I(1)	I(0)	I(1)	I(0)	I(1)	I(0)	I(1)
-2.57	-3.86	-2.86	-4.19	-3.13	-4.46	-3.43	-4.79
K	4						
ARDL Bounds F-values and t-values							
F = 9.571							
T = 2.971							

Source: Authors' computation

The F-value lies above the 5% upper-level critical value. For this reason, the null hypothesis of the non-existence of the long-run relationship among the variables is rejected, meaning that the variables are co-integrated. The t-test supported the rejection of the null hypothesis. Therefore, the error correction ARDL equation was estimated and the result is reported in Table 3.

Table 3: Estimates of the effect of Micro Small and Medium-Scale Enterprises on economic welfare

The dependent variable is economic welfare				
Variables	coefficients	Standard Errors	t-Statistics	P-value
Adjustment	- .2981	-0.1003	-2.97	0.012
Long-Run				
MSMEF	0.0209	0.0039	5.43	0.000
EXD	1.3215	0.1893	6.98	0.000
POPG	33.6292	5.2019	6.46	0.000
GOVINT	287.4022	212.7121	1.35	0.202
GOVINT*MSMEF	-0.0296	0.0038	-7.89	0.000
Short-Run				
ECOWEL	-0.5989	0.1557	-3.85	0.002
MSMEF	0.0024	0.0008	3.10	0.009
EXD	0.0632	0.0229	2.75	0.017
POPG	-0.8809	0.3121	-2.82	0.015
GOVINT	85.6588	45.3785	1.89	0.083
GOVINT*MSMEF	0.0015	0.0009	1.65	0.124

Constant	-381.1164	119.7669	-3.18	0.008
R^2 0.9276				
Adjusted R-Squared 0.7949				
F-statistics 6.99 (0.0006)				
Durbin-Watson d-statistic (23, 35) 2.1698				
Breusch-Godfrey LM Chi-square Statistics 0.671 (0.4128)				

Source: Authors' computation

The coefficient of adjustment is negative and significant statistically at the 5% level. This means that the variables automatically adjust to equilibrium in the long run when there is a discrepancy. Specifically, the error generated in each period is corrected automatically at the speed of 10.03% per year.

Micro Small and Medium-Scale Enterprises financing positively and statistically affect economic welfare in the long and short-run. This means that Small and Medium-Scale Enterprises financing significantly increase economic welfare such that any additional Medium-Scale Enterprises financing brings about economic welfare improvement. Financing of the enterprises leads to the growth and development of the business, which is associated with welfare improvement.

The coefficient for government interventions such as the Small and Medium Enterprises Equity Investment Scheme – SMEEIS; and the N200 Billion Small and Medium Scale Enterprises Credit Guarantee Scheme – SMECGS is positive and statistically insignificant at the 5% level. The positive and statistically insignificant coefficient means that the intervention measures are good but have not contributed meaningfully to the Micro Small and Medium-Scale Enterprises financing needs, necessary for economic welfare enhancement. This could be attributed to corruption and other factors that could cause leakages or diversion of the funds met for financing the enterprises. Thus, has not played a significant role in welfare improvement.

We also determined the complementarity or otherwise of government MSMEs intervention funding and the private sector-led institutions MSMEs financing on economic welfare, by interacting MSMEs financing with government interventions. It allowed us to discriminate between the substitutability and complementarity hypotheses that government MSMEs intervention funding complement the private sector-led institutions MSMEs financing for MSMEs growth and development to affect economic welfare in the economy. The coefficient for the interaction term is negative and statistically significant in the long run. Since the interaction term coefficient is negative, while the coefficient for MSMEs financing is positive, it means that complementarity does not exist in the long run. In other words, the variables (the private sector-led institutions MSMEs financing and government MSMEs intervention funding) are substitutes in the long run. On this basis, we can clearly say that private sector-led institutions MSMEs financing significantly reduces the MSMEs financing needs and promotes economic welfare without maximising the benefits of government MSMEs intervention funding. This finding is not surprising because most of the private sector-led institutions MSMEs financing loans are short-term in nature and the government interventions can serve as substitutes for their long-term financing needs. However, in the short run, the interaction term coefficient is positive and statistically not significant. Thus, in the short-run, the private sector-led institutions

MSMEs financing and government MSMEs intervention funding are more complementary but the complementary effect is statistically not significant.

The coefficient for external debt is positive and statistically significant both in the long-run and short-run. The significant external debt coefficient is an indication that the external debt if judiciously utilized, is strong enough to derive significant economic welfare improvement in Nigeria in the long and short run.

The stock of population is positive and significant in the long run but negative and significant in the short run. It means that economic welfare response positive and significantly to labour force growth in the long run but its response to labour force growth in the short run is negative.

The initial value of economic welfare (ECOWEL) negatives the predictions that faster economic welfare growth is instigated by greater backwardness in economic welfare, as indicated by the negative and statistically significant coefficient.

5.0 Conclusion and Policy Recommendations

The effects of MSMEs financing on economic welfare in Nigeria have been specifically examined, also determining whether or not private sector-led institutions MSMEs financing and government MSMEs intervention funding are complementary or substitutes. The key variables studied were statistically significant, which shows that the explanatory variables had a significant effect on the explained variable. Private sector-led institutions MSMEs financing significantly reduces MSMEs financing needs, which brings about economic welfare in the economy. Government MSMEs intervention funding and the private sector-led institutions MSMEs financing are substitutes in the long run but in the short-run, government MSMEs intervention funding and the private sector-led institutions MSMEs financing have an insignificant complementary effect on economic welfare. Other variables such as the external debt and population play some diverse roles in enhancing economic welfare in the long and short run. We recommend encouraging private sector-led institutions MSMEs financing by making it conducive for the private sector-led institutions to finance MSMEs. We also recommend alternative funding for MSMEs in addition to the existing government interventions.

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