Micro, Small and Medium Enterprises and Sustainable Economic Development in Nigeria

Imoh Kingsley Ikpe, Ph.D
Department of Economics
Akwa Ibom State University
Email: kngslyikpe@yahoo.com
https://orcid.org/0009-0003-8981-7526
Phone:07080588368, 08096953365

Godspower Itezirie Elumalue
Department of Economics,
Faculty of Social Sciences,
Delta State University
E-mail: elupowerful@gmail.com
Phone: 08035654206

https://doi.org/10.61090/aksujacog.2024.029

Abstract
Sustainable economic growth and development may practically be impossible if the indices of growth are not given the required attention that will translate into an enviable sustainability of the fabrics of growth in Nigeria. This has become important given the decline in micro, small and medium enterprise subsector in Nigeria. The essence of this research is thus, to empirically examine the impact of micro, small and medium enterprises on sustainable economic development in Nigeria. The study covered from 2000 to 2020 and annual time series data were sourced from the CBN Statistical Bulletin, World Development Indicator (WDI) and National Bureau of Statistics (NBS). The co-integration and ECM frameworks were used. The results showed that the output of micro, small and medium enterprises has a significant and positive impact on the Per Capita Income (PCY), the exchange rate (EXR) has a significant and positive impact on the micro, small and medium enterprises and Prime Lending Rate (PLR) has a negative and insignificant impact on the micro, small and medium enterprises. Thus, from the results, it was recommended, amongst others, the clustering of micro, small and medium enterprises with similar products, to further improve their output and development process vis-a-vis the growth and development of Nigeria.

Keyword: MSME, Sustainable Development, Interest Rate, Co-integration.

Jel Classification:M21, E43, C30

Introduction

The art of entrepreneurship is considered very vital and critical to the economic growth and development of any nation, Nigeria inclusive. It is the pivot upon which the economic life of any country revolves. Fundamentally, the Micro, Small and Medium Enterprises (MSMEs) form part of the entrepreneurship drive in a given economy. Micro, small and medium enterprises are imperative for economic growth, development and job creation. The mono-nature of the Nigerian economy is a result of the inability of the key players of the economy to use the embedded natural and human resources available to actualise the yearnings and aspirations of the populace and to propel the overall growth and development of the economy to the level of recognition of advancement in all spheres of life (Ikpe et al., 2018). To this end, micro, small and medium enterprises require robust support for

sustainable development and improved living standards as well as poverty alleviation (Ebitu, et al., 2016).

MSMEs contribute to the economic development of developing and developed countries (Ifekwen & Ademola,2016). Masama & Brower (2018); Mirenda & Merinda (2018) regard these businesses as the pillar of economic development, and as such imperative for the sustenance of any economy. They are generally responsible for the availability of goods and services, credit and create employment opportunities, provide competition and satisfy the needs of society and other firms, hence, they are regarded as the catalysts of developing nations (Ebitu et al., 2016). They are important agents of economic growth as they provide more than half of the Gross Domestic Product (GDP) of developing nations. They are the source of supply of both human and financial capital, a source of innovation and technological development and raw materials to bigger firms and the main source of entrepreneurship and businesses (Yahaya et al., 2016).

According to World Bank Reports (2020: P67), MSMEs account for about 90% of enterprises, over 50% of GDP and 75% of new jobs created globally. Likewise, their role in the sustainability of the Nigerian economy cannot be overemphasized. They contribute about 46.31% to the GDP with over 96.7% of Nigerian business outfits, providing 84.02% of jobs thus increasing growth, reducing unemployment and boosting economic capacity (NBS,2021: 212). The report also revealed that MSMEs accounted for 6.21% of gross exports. A strong MSME sector promotes innovations and investment opportunities which in turn facilitates employment generation and sustainable growth in the GDP of an economy (Jegadeshwari & Velmurugan, 2017); (Ogbeide & Adeboje, 2017).

The benefits of MSMEs are easily noticeable in any society (Hanmilton & Nwokah, 2009). Again, as succinctly put by (Nimfa et al., 2017), the appropriate involvement of the MSMEs in industrial activities globally is an incontestable fact. The contributions of MSMEs to the growth of the Nigerian economy is worthy of note in this regard. However, the issue has been how much of the overall economic development is attributable to this sector. This is the crux of the matter which propelled this study. Again, Nigeria is among the poorest countries in the world, with the poverty incidence estimated at 54% in 2006 in the face of abundant natural and human endowment (Ikpe et al., 2015). In the past, and not until the present democratic dispensation, the role of MSMEs has most often not been properly captured in the measurement of national economic variables. This has led to the underestimation of what their impact could be in terms of the sustainability of the Nigerian economy, especially in the areas of income generation, provision of employment, production of goods and services, promotion of local technology and increase in the standard of living.

Consequently, the main objective of the study is to empirically investigate the link(s) between MSMEs and sustainable economic development in Nigeria. Further investigation is to ascertain the impact of the output of MSMEs on per capita income; examine the relationship between prime lending rate and per capita income in Nigeria; and evaluate the impact of exchange rate on per capita income in Nigeria.

2.0 MSMEs and the Growth of the Nigerian Economy

The definition of MSME is usually done within the fixed coordinates of national boundaries as there is no one definition of what it means (Yahaya et al., 2016). It is variedly defined by different countries and organizations. However, within the Nigerian context, according to the Small and Medium Enterprises Development Agency of Nigeria (SMEDAN); and the Federal Ministry of Industries, Trade and Investment, it is generally referred to as enterprises with up to 250 employees and below, and asset base of less than #500 million. For the sake of clarity, the National Policy on Micro, Small and Medium Enterprises has given a clear distinction of enterprises, based on employment and assets. MSMEs are organizations which can best be described through their capital, scope and cost of projects, annual turnover, financial strength and number of employees, amongst others (Mekwunye, 2018). The definitions according to categorization (Mekwunye, 2018) are as follows:

1. Micro Enterprises are between 1 and 9 employees with less than #5 million
2. Small Enterprises are between 10 and 49 employees with assets over #5 million and less than #50 million.
3. Medium Enterprises are between 50 and 249 employees with assets over #50 million and less than #500 million.

Despite the numerous challenges faced by MSMEs which range from lack of economies of scale due to their limited size, they have been identified as a tool for economic development (Basil, 2005). Similarly, poor absorptive capacity and limited funds have also been identified as factors that hamper the development of MSMEs in Nigeria (Taiwo et al., 2012).

Ajibola (2020) stated that SMEs provide about 80% of employment for the teeming Nigerian population. In the view of Yahaya, et al. (2016), MSME can be perceived as a tool for economic development, even though a variety of challenges seem to have a negative impact that constrains it from playing the vital role of stimulating sustainable economic development. They provide employment opportunities in developing nations like Nigeria, and if utilized, might reduce poverty and subsequently, hardship level of citizens. As captured by (Obitayo,1991), the role of MSMEs include:

1. Aiding in the development of local technology.
2. Providing an effective way of stimulating indigenous entrepreneurship.
3. Mobilization and utilization of domestic savings.
4. Ensuring a structural balance in terms of large and small-scale industrial sectors, as well as urban areas.
5. Ensuring the supply of high-quality parts and components, and intermediate products thereby strengthening the international competitiveness of manufactured foods.
6. Producing specialized items in small quantities to meet current and diverse demands.
7. Mitigating rural-urban migration.

MSMEs are believed to contribute to the Nigerian economy in terms of the production of a variety of goods and services and, the creation of jobs at relatively low capital cost, especially in the growing service sector, providing a vehicle for future industrial expansion. It was explained that MSMEs are known for improved forward and backward linkages between economically, socially and geographically diverse sectors of the economy, provide opportunities for developing and adopting appropriate technological approaches, offer an excellent breeding ground for entrepreneurial and managerial talents, promote industrial diffusion and regional balance, and others (Hamilton & Nwokah, 2009).

The Nigerian Industrial Policies: 1980 to 2020

It is important to state that despite the overwhelming benefits of MSMEs, before the advent of the present democratic dispensation in 1999, they were not accorded a place of priority in the making of major economic policies in Nigeria. However, in recent years successive governments at various (Federal, State and Local Government) levels have begun to identify the need for improved and increased support for that segment of the economy. A glance at the policy direction of the government on MSMEs from 1980 to 2000 indicates a steady rise over the years.

The Shagari administration of 1979 to 1983 embarked on the Fourth National Development Plan (1980 – 1985). Among the objectives of the plan was the reduction of dependence of the economy on the narrow range of activities; increased participation of the citizens in the ownership and management of productive enterprises; and greater self-reliance that is, increased dependence on local resources in seeking to achieve the various objectives of society. The projected capital investment of the plan was put at #82 billion, with #70.5 billion as public sector investment while the private sector was expected to make an input of #11.7 billion (Adedeji, 1989). It was said to be the most ambitious programme of investment. Resources generated from oil were to ensure all-around expansion

in the production capacity of the economy and lay the foundation for self-sustained growth (Egonmwan & Ibodje, 2001). Also, part of this was the "Green Revolution" programme with the strategy to promote national self-reliance and agrarian self-sufficiency (Nwosu, 1999). However, the plan coincided with a global economic recession which generated declining foreign exchange earnings, balance of payment disequilibrium, unemployment and accelerating inflation, decline in real output, and upward review of duties, interest rates, and prices of petroleum products (Onyejiuwa & Fagboyo, 2019). This era was coined "The Austerity Period". This prompted the introduction of the emergency stabilization measures in 1982 (Chete, et al, 2016).

The Babaginda's Military Regime precisely in July 1986, adopted the Structural Adjustment Programme (SAP). It was designed with the thrust of a shift from Import Substitution Industrialization (ISI) approach to Export Promotion Industrialization (EPI). It was conceived with the underlying urgent need to generate more foreign exchange, particularly from non-oil sources to meet the country's rising import bills, mounting external debt obligations, rising fiscal responsibilities of the government, and to attend to socio-economic responsibilities (Ekpo, 2014). SAP was meant to reverse the downward trends in the economy, widen the industrial base, provide stimuli for increased exports and incentives for the manufacturing sector to enlarge its value-added and contribution to GDP (Bamidele, 2005; Banjoko et al., 2012). It was meant to promote inclusive growth and development of the economy. This gave rise to a gradual shift of emphasis from large-scale agricultural industrial-oriented production to small-scale enterprises in Nigeria (Evbuomwane et al., 2016; Ogbeide & Adeboije, 2017).

The National Economic Empowerment Development Strategy (NEEDS): As stated earlier, clearer attention on the promotion of MSMEs only started with the introduction of NEEDS by the Obasanjo's Government in 2004. It was an entirely home-groomed package. Here the private sector was identified as the engine of growth. The private sector is the executor, investor and manager of businesses. The government is the facilitator and regulator, helping the private sector to grow, create jobs, and generate wealth (NEEDS, 2004).

The overriding objectives of this development policy included:

i. To accelerate the pace of industrial development by increasing value added at every stage of the value chain.
ii. To encourage forward and backward linkages in a few inches.
iii. To provide an enabling environment for private sector leadership-
iv. To promote the establishment of efficient small and medium-sized enterprise sectors to enhance sustainable economic development.
v. To facilitate the development of an industrial sector that is internationally competitive.

NEEDS was considered to be a "mother package" through which other industrial policies within this period anchored their existence.

The National Integrated Industrial Development (NIID, 2007): This formed the industrial policy direction of the Yar'adua's Administration. The blueprint was a service framework developed by the United Nations Industrial Development Organization (UNIDO) in collaboration with the Federal Ministry of Industry and other stakeholders. The framework according to (CBN, 2007) comprised four integrated programmes, namely:

i. Industrial governance and public-private sector partnership.
ii. Strengthening the industry's institutional support base, a cluster development initiative to grow the Small and Medium Enterprises (SMEs) using common.
iii. Environmental and energy addressing the challenges of low power generation and utilization through rural private sector agro-industrial development.

The Industrial Park Development Strategy (IPDS, 2009) of Yar'adua's regime was a "Cluster Concept Strategy" aimed at driving non-oil growth through the creation of industrial parks and special economic zones.

The Economic Transformation Agenda (2011-2015): The economic blueprint was encapsulated under the Vision 20:2020 of Goodluck Jonathan. The industrialization strategy aimed to achieve global competitiveness for specific processed and manufactured goods by linking activity industrial with primary sector activity, domestic and foreign trade, and service activity. Highlights of the transformation document include the development of industrial clusters, enterprise zones and incubator facilities (Chete et al., 2013).

The Nigerian Industrial Revolution Plan (NIRP) was introduced by the Jonathan-led government in 2014. It was a 5-year plan designed to develop industrial capacity within Nigeria. The aim was to increase manufacturing contribution to GDP from 4% in 2015 to 6% by 2015 and finally 10% by 2017. The plan was set to drive intense industrialization in sectors where Nigeria had a comparative advantage such as agro-allied such as metals and solid minerals-related sectors as well as construction, light manufacturing and services. The plan specifically targeted Job creation, economic and revenue diversification, import substitution, export diversification, and broadened government tax bases. According to (Fagboyo, 2019), unfortunately, as comprehensive and holistic as the plan seemed, it had not been implemented since its inception in 2014. It was only in 2014 that the Buhari administration made some concerted effort in that direction (Adekoya, 2021).

The MSMEs Clinics (2017): This was one of the efforts of the regime of President Buhari, which was introduced by Acting President Osinbajo on January 24, 2017, an initiative of the office of the Vice President, in partnership with the Federal Ministry of Industry, Trade and Investment and eleven (11) Federal Agencies to create a platform for MSMEs to interact with the Federal Agencies and obtain practical and on-the-spot solutions to their business challenges.

Backward Integration Plan (BIP). The objective of this plan was to domesticate production for selected priority products, with Palm Oil, Automobile, Diary, Sugar, Cassava Starch and Cotton, Textiles and Garments (CTG), by conducting revision and realignment of the incentive system for sugar, through a restructured performance management framework and improved access to foreign exchange (forex) of producers.

Some MSMEs Funded by the Central Bank of Nigeria (CBN) and the Bank of Industry (BOI)

The BOI being Nigeria's oldest development financing institution (which was reconstructed in 2001 out of the Nigerian Industrial Development Bank Limited, incorporated in 1964), offers a broad range of financial services to MSMEs and various low-income earners while the CBN is the apex bank which plays the supervisory and regulatory role over the financial sector. Some of the involvements of these institutions in the funding of MSMEs are highlighted as follows:

i. BOI in collaboration with the Ministry of Industry, Trade and Investment provision of a #12 billion soft loan to 57 companies in the automobile sector to enhance production capacity.
ii. One-billion-dollar landmark syndicated term loan through BOI to provide affordable loans of medium to long term tenor, alongside moratorium benefits to MSMEs.
iii. The establishment of the Development Bank of Nigeria PLC (DBN) in September 2014 in partnership with several international finance institutions such as the World Bank, Africa Development Bank (AfDB), KfW Development Bank (Germany), Agency Francaise de Development (AFD) and the European Investment Bank (EIB) was another effort of the Federal Government to increase access to funding for MSMEs. The Secured Transaction in Moveable

Acts, 2017 that gave legal backing to the National Collateral Registry (NCR) Platform was an idea muted by the CBN and the International Finance Corporation. The NCR registration allows MSMEs to convert and register their moveable assets into collateral for credits, and still retain control and use of such assets, thereby increasing their access to finance. Records available as of 2021 indicated that through this platform, lending banks have availed credit amounting to #1.8 trillion; 1.36 billion US dollars and 10.92 million euros, to 273,435 borrowers, comprising 262,904 individuals, 1,421 large, 4,260 medium, 1,433 micro and 3,417 small businesses (CBN, IFC, Reports (7th editions) - MSMEs Survival Fund Initiative, which is a component of the Nigerian Economic Sustainability Plan (NESP) to help MSMEs respond to the shock caused by the COVID-19 pandemic (Adebayo, 2021).

Some of such programs include NEEDS, SEEDS, YOUWIN, TRADERMONI, FARMERS WALLET etc. One of the key steps was the establishment of SMEDAN to ensure the effectiveness of the various programmes. Worthy of note is the recent intervention of the Central Bank through the launching of the 220-billion-naira Micro, Small and Medium Enterprises Development Fund (MSMEDF), in addition to many other programmes such as the Youth Entrepreneurship Development Programme (YEDP), Agric-business/Small and Medium Enterprises Investment Scheme (AGSMEIS). These, among others, are efforts and steps taken by the government to ensure that adequate funding gets to MSMEs to stimulate the Nigerian economy and promote sustainable economic growth and development (Ebulu, 2021).

Theoretical Framework

There have been several economic theorizing advanced by different researchers to explain the relationship between MSMEs and the sustainable economic development of nations. One of the theories is the Solow-Swan growth theory which this study is anchored on. The Solow–Swan model or exogenous growth model by Robert Solow, 1956; Trevor Swan 1956 is an economic model of long-run economic growth. Long-run economic growth can be achieved through the acquisition of capital accumulation, skilled labour or working population. These factors provide the required increase in productivity driven by technological progress. This model has an edge over the Keynesian Harrod-Domar model. Economic sustainability refers to practices that support long-term economic growth without negatively impacting on social, environmental, and cultural aspects of the community. The essence of MSME is to cause a transformation with all its ramifications in a country's economy involving qualitative and quantitative improvements. The theory of economic development which essentially has to do with "how primitive and poor economies can evolve into sophisticated and relatively prosperous ones" is of critical importance to underdeveloped and developing countries, and it is usually in this context that the issues of economic growth and development are discussed (Kruger, 2020 P340-341).

The development of MSMEs as an economic tool may well fall under the classical economic development theory, where production is left in the hands of private individuals. That is the promotion of a free market economy. Again, the support provided by the government in the form of policies and direct intervention makes it akin to the Keynesian idea of government intervention in the economy. Both schools of thought are likely the rationale for the clamour by developing and underdeveloped countries to take a new path for economic development following the end of World War II in the 1940s up to the 1950s.

Specifically, the growth theory with particular reference to the Harrod-Dormar Model, and the Solow-Swan Model of economic growth are relevant to this study.

The Harrod-Dormar places particular attention on the rate of income growth necessary for smooth and uninterrupted working of the economy. First, it emphasizes that investment creates income, and second, it augments the productive capacity of the economy by increasing its capital stocks (Jhingan, 2016).

In a similar vein, the Solow-Swan growth theory postulates a continuous production function linking output to the inputs of capital and labour which leads to the steady state equilibrium of the economy. The Solow-Swan model, also known as the exogenous growth model attempts to explain long-run economic growth (and by extension development) by looking at productivity, capital accumulation, population growth and technological progress. In essence, the Solow–Swan model predicts that an economy will converge to a balanced growth equilibrium, regardless of its starting point. In this situation, the growth of output per worker is determined solely by the rate of technological progress (Acemoglu, 2009).

3-0 Empirical Literature

Uchehara (2019) investigated the effects of MSMEs on sustainable rural development in Nigeria by providing empirical evidence on the relationship. He adopted a sample of 336 small business owners that operate in Ihiala, Ogbaru, and Old Aguata Local Government Areas of Anambra State of Nigeria. The Ordinary Least Square (OLS) was employed for the data analysis. The results showed that government involvement has no significant effect on MSME development in the area covered. In addition, MSMEs have about 29% significant effect on rural development in Anambra State. The study then concluded that MSMEs can open up rural areas in a developing economy like Nigeria, increase business start-ups, use indigenous technologies, business and customer growth and small business enhancing features that can be improved to achieve sustainable rural development in Nigeria.

Ebitu et al., (2016) undertook a critical appraisal of the MSMEs in Nigeria, with a focus on the growth, challenges and prospects of the MSMEs in Nigeria. Their work revealed that MSMEs contribute significantly to economic development in the provision of goods and services, creation of employment and a high standard of living. It further specified some setbacks faced by MSMEs which include limited financing, poor managerial and marketing skills, lack of technical expertise etc. The conclusion drawn from the study indicated that entrepreneurship is regarded as a catalyst in developing economies and that it is very critical to the economic growth and development of Nigeria. They, therefore, recommended greater support from the government through positive policies and actions in this direction.

Awoyemi & Aderonke (2020) studied the growth prospect of financing MSMEs in Nigeria and the challenges that constitute a hindrance to growth in Nigeria. They adopted a descriptive analysis, simple percentages and deductive method. Findings showed that inaccessibility to funds owing to different reasons and challenges were the major factors that hamper the growth and survival of MSMEs in Nigeria, It was also revealed that financial institutions look at MSMEs as high-risk debtors without creditworthiness. To this end, it was recommended that the Federal Government should formulate policies that will encourage MSMEs to begin to source funds from the capital market through the introduction of the third-tier security market.

Ajibola (2020) conducted a research on SME sustainability strategies and posited that 80% of the entire workforce in Nigeria is engaged by SMEs. Adopting the stakeholder theory for this purpose, qualitative multiple case study explored the different strategies SME owners used to sustain their business beyond 5 years. Using the 'thematic' analysis, it was revealed that 80% of SMEs are not sustained beyond 5 years. Seven factors which accounted for this are lack or inadequate measure of the following: leadership and entrepreneurial skills, financial management practices, a positive work environment, fostering customer satisfaction and loyalty, a business community in line with sustainable development goals, maintaining long-term relationships with stakeholders, and innovation management that gives social, economic, and environmental values to stakeholders. Key recommendations in the aforementioned directions were made.

Yahaya et al., 2016) investigated the role played by MSMEs in the economic development of Nigeria using Damaturu, Yobe State as their case study. The rationale was to assess the contribution of the sector, its challenges and the level of government support and regulation. The study adopted a qualitative research method, with specific interviews with eight (8) MSMEs, representatives of the

government agency SMEDAN and also credit officers of Microfinance banks. Their findings indicated that MSME is a useful engine that promotes the economic development of a nation like Nigeria by providing employment and self-reliance. The study also identified major challenges faced by SMEs in Nigeria including insecurity, high lending rate, poor electricity, and lack of awareness of the existence of SMEDAN policies and programmes.

Emmanuel et al., 2019) provided new evidence on the determinants of business enterprises' performance by combining the structure conduct performance, efficiency structure and Business Factors. Using a cross-sectional OLS to test their data, the result obtained showed that skilled labour, capital intensity, age, size, foreign ownership, percentage of export, research and development as well as bribe payment have a positive impact on MSME's performance.

4.0 Research Methodology

The study employed historical data. They are time series data which are basically sorted on an annual basis, thus making the research design to be the ex-post facto design; and is considered most appropriate. The techniques used in analyzing the data bother around co-integration and error correction model framework. This commenced with a brief description of the data, followed by the correlation matrix to ascertain the presence of multi correlenarity related issues. The next in line was the unit root test and for this purpose, the Augmented Dickey-Fuller (ADF) unit root test was adopted. If all the variables are stationary at the same level, we may then proceed to the co-integration test. The Johansen method was adopted for this purpose to ascertain whether a long-run relationship existed among the variables. Thereafter, the ECM followed, which in this case is made up of the over-parameterized and parsimonious error correction model. Some diagnostic checks were also carried out on the model. The data used were essentially secondary and were drawn from World Bank Development Indicators (WDI), the Central Bank of Nigeria (CBN) and the National Bureau of Statistics (NBS). The data included those on Per Capita Income, Output of MSMEs in Nigeria, Prime Lending Rate and Exchange Rate.

4.1 Model Specification

This study is anchored on the Solow-swan model. The Solow-Swan model, also known as the exogenous growth model attempts to explain long-run economic growth (and by extension development) by looking at productivity, capital accumulation, population growth and technological progress. Therefore, this study is aimed at establishing the relationship between small, micro and medium enterprises and economic growth in Nigeria. To capture the impact of MSME on per capita income in Nigeria, the model is formulated as thus:

PCY = f(MSQ, PLR, EXR)

Where:

PCY = Per capita income

MSQ = Output of MSMEs

PLR = Prime lending rate

EXR = Exchange rate

Hence, the mathematical form of the model is stated in equation 2 below

$PCY = = a_{0+} a_1MSQ + a_2PLR + a_3EXR + U_t$ 2

Hence, the logarithm form of the model is stated in equation 3 below

$= a_{0+} a_1LnMSQ + a_2LnPLR + a_3LnEXR + U_t$ 3

Ut = Stochastic error term

Ln = Logarithm

A' priori expectation: $a_1>0$, $a_2<0$, $a_3>0$

4.2 Results and Findings

This session concerned with a description of the variables. The result of the descriptive statistics is shown in the table below.

Table1: Summary of Descriptive Statistics Results

	LPCY	LMSQ	LPLR	LEXR
Mean	11.13381	7.235070	2.906072	5.139507
Median	7.500000	6.667466	2.906354	5.021905
Maximum	26.80000	9.254376	3.212858	2.094111
Minimum	6.000000	6.070276	2.065648	4.613154
Std	6.386780	1.02392	0.127946	0,442045
Jarque-Bera	2.983948	2.327584	0.125338	4.550066
Probability	0.030441	0.312300	0,949254	0.102102793

Source: Author's computation.

The mean of PCY is 11.13 and the median is 7.50. This indicates the PCY is increasing during the study period. The highest value for PCY is 26.80, while the minimum value is 60.0. The standard deviation for PCY is 6.39 which is not a major variation but the highest among the variables. The average value and median for MSQ are 7.24 and 6.67 respectively. The median is higher than the mean. This indicates that the MSQ improved marginally during the study period. The highest value is 3.21 and the lowest value is 2.61. the standard deviation is 0.14 which is not a major variation. The mean for EXR is 6.14 and the median is 5.02. This indicates that the EXR depreciated during the study period. The maximum and minimum values are 6.09 and 4.61. The standard deviation of 0.44 indicates minimum variation. The Jarque-Bera value of all the variables except one indicates that the residuals are normally distributed.

The result of the correlation analysis is shown in Table two:

Table 2: Summary of Result of Correlation Analysis

LPCY	1			
LMSQ	0.28054826067	1		
LPLR	-0.20504507792	-0.19123818913	1	
LEXR	0.12741415105	0.91553103359	0.11551313603	1

Source: Author's Computation

MSQ has a positive and weak correlation with PCY with a coefficient of 0.28. the PLR has a negative and weak correlation with the PCY correlation coefficient is -0.21. EXR has a positive and weak correlation with the PCY with a coefficient of 0.13.

The result of the ADF unit root test is shown in the table below:

Summary of ADF Unit Root Test

Variables	Level Data	First Difference	Order of Integration
EXR	0.85	3.49	1 (1)
MSQ	-0.01	-6.74	1 (1)
PCY	-1.07	-6.44	1 (1)
PLR	0,79	-6.58	1 (1)

N.B 1: 0.8 indicates significance at the 1 per cent and 5 per cent levels respectively.

2. 1 per cent and 5 per cent critical value are -3.83 and -3.03.

The result of the ADF unit root test indicates that all the variables were not stationary originally. They will however become stationary after the first difference was taken.

While the MSQ, PCY and PLR were stationary at the 1 per cent level, the EXR was stationary at the 5 per cent level.

The result of the Johansen co-integration test is shown in Table 4 below:

Hypothesized no. of CE (s)	Trace Statistics	0.05 Critical Value	Prob
None*	61.94503	47.88613	0.0014
At most 1 *	30.78901	29.79707	0.0383
At most 2	7.119527	15.49471	0.5638
At most 3	0.001676	3.841466	0.9650

Hypothesized no. of CE (s)	Max-Eigen Statistics	0.05 Critical Value	Prob
None*	31.15701	27.58434	0.0166
At most 1 *	23.66949	21.13162	0.0215
At most 2	7.117951	14.26460	0.4753
At most 3	0.002676	3.841466	0.9650

Source: Author's Computation

The result of both the trace statistics and Max-Eigen Statistics indicates that there are two co-integration equation. This suggests the existence of a long run relationship among the variables. This permits the estimation of the over-parametized and the parsimonious ECM results. The result of the over-parametized ECM is shown in the table 5.

Summary of Over-Parametized ECM Results

Dependent Variable: LPCY

Variable	Coefficient	Std. Error	t-statistics	Prob.
LPCY (-1)	11.27394	1.833081	6.150267	0.0000
LPCY (-2)	0.061490	0.188308	0.326542	0.7551
LMSQ	41.55706	13.49625	3.079156	0.0068
LMSQ (-1)	-1.125717	2.522466	-.0446276	0.6711
LMSQ (-2)	2.462256	3.218587	0.765011	0.4733
LPLR	-0.494047	8.628224	-0.057259	0.9562
LPLR (-1)	-2.821177	6.612001	-0.426675	0.6845
LPLR (-2)	-8.630315	3.418539	-2.524562	0.0233
LEXR	34.36051	13.20496	2.594518	0.0189
LEXR (-1)	9.312854	11.11430	0.837916	0.4342
	8.322854	15.12973	0.92463	0.9293
LEXR (-2)	1.395939	0.00129	-10.28000	0.000
ECM (-1)	-0.001331	6.598632	-1.44833	0.1977
C	8.322854			

AIC = -5.35, SC = 5.99, DW = 2.01, R^2 = 0.90

Source: Author's Computation

The Schwarz criterion (SC) and the Akaike Information Criterion (AIC) as well as economic theory were used to select the appropriate lag length which was used to develop the parsimonious ECM. The parsimonious ECM result was obtained by deleting insignificant variables

from the over-parameterized ECM and re-estimating the equation. The result of the parsimonious is shown in the Table 6.

Summary of Parsimonious ECM Result

Modelling LPCY

Variable	Coefficient	Std. Error	t-statistics	Prob.
LPCY (-1)	74.34813	26.87502	2.766440	0.0160
LMSQ	0.497596	0.217681	2.265892	0.0354
LPLR (-2)	-1.845336	5.330767	-0.346167	0.7348
LEXR	14.08615	6.799459	2.071658	0.0588
ECM (-1)	-0.177280	0.072528	-2444317	0.0257
C	-0.023840	0.165761	-0143823	0.8873

R^2 = 0.88, AIC = -5.04, SC = -5.34, DW = 2.11

Source: Author's Computation

The R2 indicates that only 12 per cent of the total variation was explained outside the model. It shows that 88 per cent of the total changes in the PCY have been explained by the MSQ, PLR and EXR. The result indicates that the PCY (-1), MSQ and EXR have a positive impact on the PCY, while the PLR (-2) has a negative impact on the PCY. An increase in the MSQ by one unit increases the PCY by 0.50 units.

A depreciation of the EXR by 1 unit increased the PCY by 14..09 units. An increase in the PLR (-2) by 1 unit reduced the PCY by 1.89 units.

The result indicates further that the PCY (-1), the MSQ and EXR with t-values of 2.77, 2.89 and 2.07 are statistically significant in explaining the changes in the PCY. This validates the relevant alternative hypothesis of a significant relationship between the PCY and the variable.

The PLC (-2) with a t-value of -0.35 was not statistically significant. The ECM was significant and had the right sign. 18 per cent of the errors were corrected in each period. The results of the various diagnostic checks are shown in Table 7.

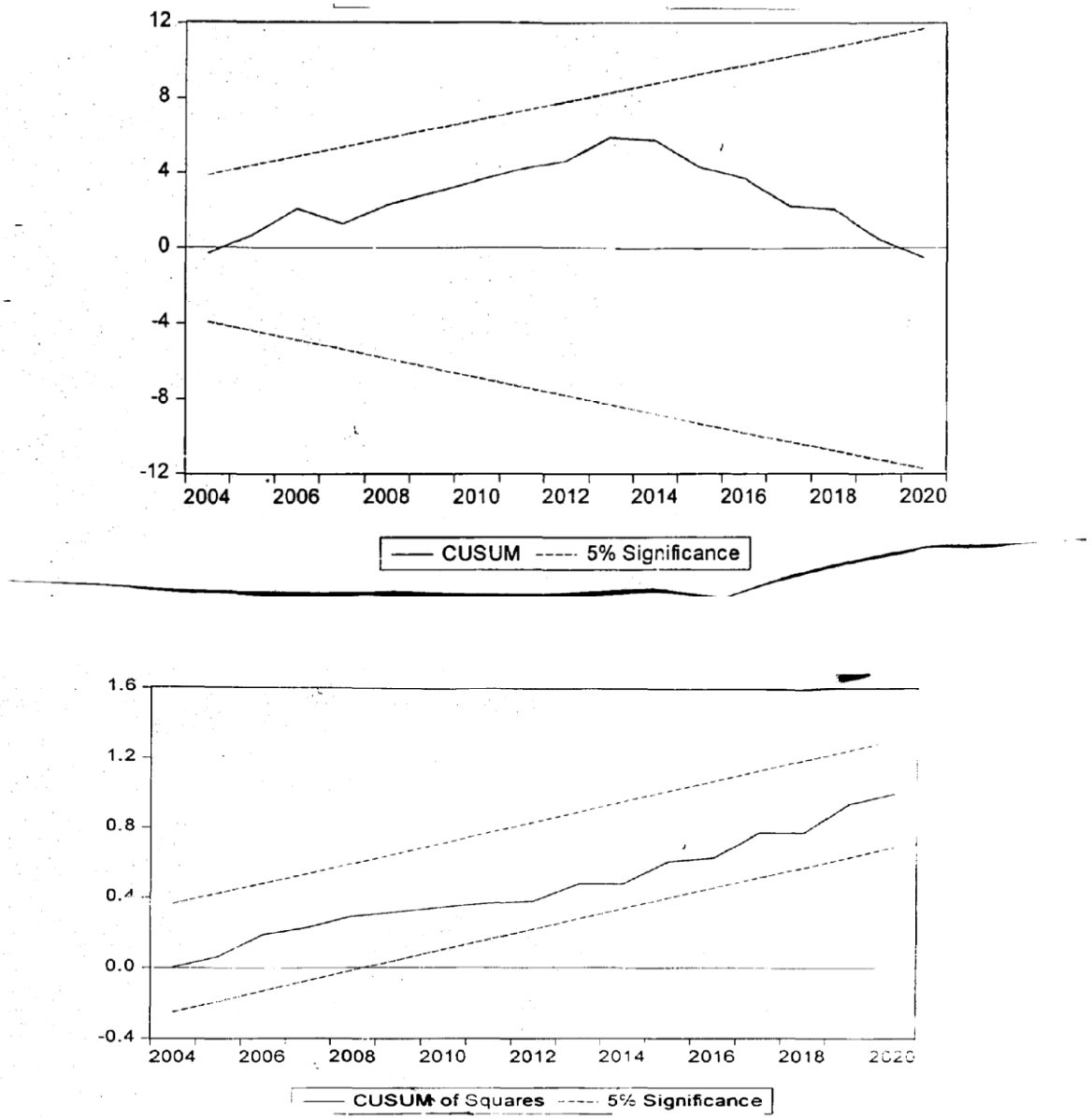
Test	F statistics	Probability
Jarque-bera	0.13	0.9
Breusch-Godfrey Serial Correlation LM test	1.45	0.62
Harvey Heteroskedesticity	0.48	0.89

Source: Author's Computation

The results Jacque-Bera with a probability of 0.94 indicate the validation of the null hypothesis that the residuals are normally distributed. The Breusch Godfrey test with a probability of 0.62 validates the null hypothesis that the residuals are not serially correlated. The probability of 0.89 of the Harvey Heteroskedascity test indicates a validation of the null hypothesis that the residuals are homoscidacity, implying that the residual has a constant variance.

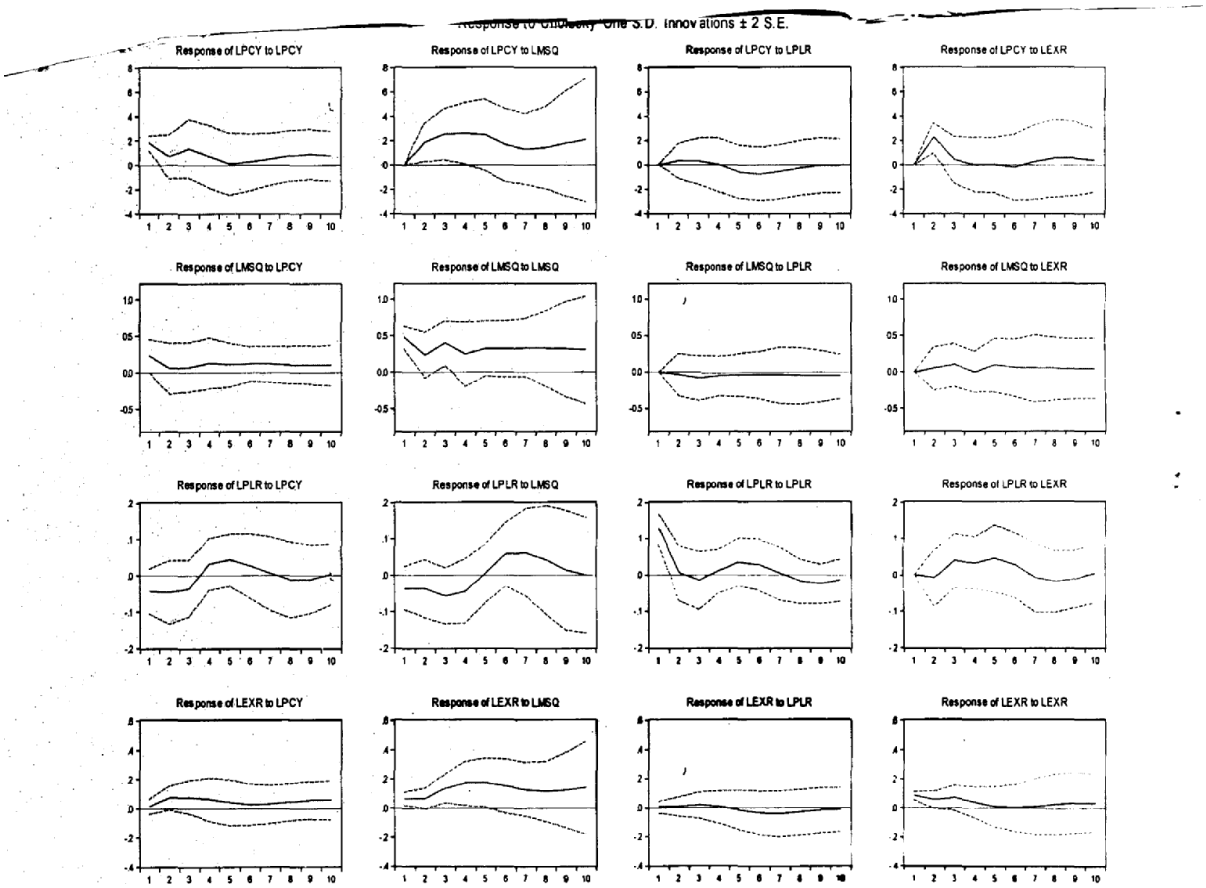
Figures 1 and 2 show the results of the stability test which are the cumulative sum of Recursive Residuals (CUSUMQ) and the cumulative sum of squares of Recursive Residuals (CUSUMQ).

Fig. 1 CUSUM Stability Test



The results from both the CUSUM and CUSUMQ stability tests indicate validation of the null hypotheses in both cases that the residuals are stable. This is because the CUSUM and CUSUMQ lines fell in between the two 5 per cent lines.

The result of the impulse response is shown in Figure 3 below:



Source: Author's Computation

The result of the impulse response indicates the dominance of own shock. A one period standard deviation shock to each of the variables have a positive impact on themselves. A one period standard deviation shocked to MSQ has a positive impact on the PCY. A one period standard deviation shocked of the PLR has a negative impact on the PCY. A one period standard deviation shocked to the EXR has appositive impact on the PCY.

Conclusion and Recommendations

This research investigated MSME and sustainable economic development in Nigeria using the co-integration framework. Globally, the MSME is key in the growth and development process. This is why countries around the world encourage the development of the MSME sector and also encourage the conglomeration of MSMEs into clusters. The case in Africa and Nigeria in particular has been however different. This sector has not been given the desired attention over the years, while many of such MSMEs are struggling to survive, many others have folded up. The findings, however, revealed that the MSMEs have the potential to resuscitate the development process in Nigeria. The result indicates that the depreciation of the naira has been beneficial to the development process. The findings, however, also revealed that the high interest rates of credit facilities to the MSMEs have been detrimental to the development process in Nigeria. The reason for this is that there is no growth in the long term except countries have the same g (population growth rate), s (savings rate), and d (capital depreciation rate), then they have the same steady state, so they will converge, that is, the Solow Growth Model predicts conditional convergence. Along this convergence path, a poorer country grows faster. Countries with different saving rates have different steady states, and they will not converge. When saving rates are different, growth is not always higher in a country with a lower initial capital stock.

Neoclassical growth theory outlines the three factors necessary for a growing economy. These are labour, capital, and technology. However, neoclassical growth theory clarifies that temporary equilibrium is different from long-term equilibrium, which does not require any of these three factors. Consequently, this study finds a consensus among different economic perspectives all pointing to technological change as a key generator of economic growth.

It is recommended that the Government should encourage the development of MSME clusters of firms producing similar products. This could drastically improve the developmental process in Nigeria. This is because such MSME clusters will transpose into larger industrial hubs.

It is also recommended that a special bank should be developed out of the Bank of Industry to serve the MSMEs with credit facilities at concessionary interest rates at the beginning. The depreciation or further devaluation of the exchange rate should be done with some conditions. that will trigger an increase in domestic production but succinctly, it should be done after production.

finally, it is recommended that government should key into the suggestions of policymakers who have historically pressured the investment in scientific and research development toward innovation.

References

Acemoglu, D. (2009). *Introduction to modern economic growth.* 3rd Edition, Princeton University Press, *ISBN 978-0-691-13292-1*.

Adedeji, A. (1989). The African alternative programme for socio-economic recovery and transformation. https://www.scrip.org

Adekoya, F. (2021). Revisiting Nigeria's industrial policy for competitiveness. *The Guardian Newspaper* 4/8/2021 edition 34.

Adebayo O. (2021) Impact of renewable energy consumption, globalization, and technological innovation on environmental degradation in Japan: Application of wavelet tools," *Environment, Development and Sustainability: A Multidisciplinary Approach to the Theory and Practice of Sustainable Development*, *Springer*, 23(11), 16057-16082.

Ajibola, E. O. (2020). Nigeria small and medium enterprises sustainability strategies". Doctoral research study submitted to Walden University adapted from https://scholarworkers.walden.edu.

Awoyemi, B. O. & Aderonke, A. (2020). The growth prospect and challenges of financing, small and medium scale enterprises (MSMEs) in Nigeria. *European Journal of Business and Management Research*. 5(4), 134-150.

Bamidele, A. (2005). The Imperatives of e-banking in for monetary policy in Nigeria. *Journal of Economic and Financial Review*, 43(1), 1-21.

Banjoko, S. A., Iwuji, I. I. & Bagshaw, K. (2012). The Performance of the Manufacturing sector: A 52- year of annalysis of growth and retrogression (1960-2012). *Journal of Asian Business Strategy* 2(8), 177-191.

Basil, O. (2005). Small and Medium enterprises (SMEs) in Nigeria: Problems andpProspects. SL Clements University (http://www.slclements.edugrad/gradonug.pdf.

Central Bank of Nigeria (CBN, 2007). Annual report and statement of accounts

Chete, L. N., Adeoti, J. O., Adeyinka, F. M. & Ogundele, O. (2013) *Industrial development and economic growth in Nigeria: Lessons and challenges.* ADB Working Paper, wp08.213-265, African Development Bank.

Chete, L. N., Adeoti, J. O., Adeyinka, F. M. & Ogundele, F. O. (2016). Industrial policy in Nigeria: Opportunities in arResource – rich country. *Canadian Journal of* Economics, 25(4), 923-943

Ebitu, E. J., Basil, G. & Ufot, J. A. (2016). An appraisal of Nigeria's MSMEs: Growth, challenges and prospects. *British Journal of Marketing Studies,* 4(5), 21-36..

Ebitu, E. J., Basil, G. & Ufot, J. A. (2016). An appraisal of Nigeria's MSMEs: Growth, challenges and prospects. *British Journal of Marketing Studies*, 4(5), 24-36.

Ebulu, S. (2021). Driving sustainable economic growth with MSMEs intervention. https://internationalonlineng.net

Egonmwan, A. & Ibodje S. W. E. (2001). *Developmental administration theory and practice*. Resyin (Nig) Company Ltd.

Ekpo, U. N. (2014). Nigeria industrial policies and industrial sector performance. Analytical *Exploration Journal of Economic and Finance (JOSR-JEF)*, 3(4), 314-334.

Emmanuel, Z., Anga, R. A. & Isa, C. G. (2019). The determinants of MSMES performance in nigeria: evidence from business enterprise survey. https://npra.ub.unimuenchen.de1988741. 3(1), 21-45

Evbuomwan, G. O., Ikefan, O. A. & Okoye, L. U. (2016). Structure and constraints of micro, small and medium scale enterprise (MSMEs) in Nigeria. *Covenant University Repository*. 1-5. Journal of Xi'an Shiyou University 18(5)453-468

Hamilton, D. I. & Nwokah. M. G. (2009). Dynamics of Corporate Innovation in Small and Medium Enterprises. *Journal of Business and Finance*. *Faculty of Business Administration, Imo State University, Owerri,* 2(1), 298-314.

Ifekwen, N. and Ademola, O. (2016). Survival strategies and sustainability of small and medium enterprises in the Oshodi-Isolo Local Government Area of Lagos State. *Acta Universities Saplential, Economics and Business*, 4(1), 103-118

Ikpe I. K., Udo E. & Ekung E. G. (2018). Exchange rate policy and growth in agricultural export in Nigeria'. A Published Proceeding of the NES conference 105-125

Ikpe, I. K. & Udo, A. B. (2015). Impact of oil price shock on the nigerian economy. A Published Proceeding of the NAEE/IAEE Conference,156-173

Jegadeshwavi, S. & Velmurugari, R. (2017). Determinant of MSMEs entrepreneur sustainability. *Journal of Advanced Research Dynamic and Central System*, 10(3), 149-154.

Jhingan, M. L. (2016). *International economics*. Vrinda Publications PLT-DELHI

Kruger, A. O. (2020). Economic development encyclopedia britannica. http://www.britannica.com

Masama, B. T. & Bruwer, J. (2018). Revisiting the economic factors which influence fast food South Africa small, medium and micro enterprises. *Expert Journal of Business and Management*, 6, 19-28. https://businessexpertjournals.com

Mekwunye, U. (2018). Small and medium scale enterprises in Nigeria – An overview of initial set up. benchmark & Ince. www.monday.com.

Miranda, A. T. & Miranda, J. L. (2018). Status and conditions of small and medium sized enterprises as predictors in empowering rural communities in Samar Island, Philippines. *Asia Pacific Journal of Innovation and Entrepreneurship*, 12(1), 105-119.

National Bureau of Statistics (2021). National burreau of statistics in Nigeria: Central Data Catolog. https://www.nigrianstat.gov.ng/nada/index.php/catalog

National Economic Empowerment Development Strategy - NEEDS (2004). NEEDS working paper. https://www.cbn.gov.ng

Nimfa, D. T., Abdullaliff, A. S. & Abdulwahab, S. (2021). Theories underlying sustainable growth of small and medium enterprises. *African Journal of Emerging Issues*, 3(1), 43-66.

Nwosu, N. I. A. (1999), The state and rural development in Nigeria. Periodical: *Ufahamu*. 18(3)52-65.

Obitayo, K. M. (1991). Government industrial policies in respect of small and medium enterprises in Nigeria. Bullion 15(3), Central Bank of Nigeria.

Ogbeide, F. I. & Adeboje, O. M. (2017). Financial liberalization and business entry nexus in SSA: To what extent does resource dependence and institutional quality matter? Development Bank of Nigeria. *Journal of Economic and Sustainable Growth*,1(1), 1-18.

Ogundajo, G. O., Akinloye, I. R. & Olayinka, I. M. (2019). Taxing informal sector and revenue generation in Nigeria. *Int'l Journal of Commerce and Management Research*. 5(41), 81-87.

Onyejiuwa, D. C. & Fagboyo, R. J. (2019). Nigerian nat'l development plans and manufacturing sector. A case for diversification. https://www.researchgate.net.

Solow, R. .M *(1956).* A contribution to the theory of economic growth. *Quarterly Journal of Economics, 70(1): 65–94. doi:10.2307/1884513. hdl:10338.dmlcz/143862. JSTOR 1884513.*

Swan, T. W. (November 1956). Economic growth and capital accumulation. *Economic Record*. 32*(2), 334–361. doi:10.1111/j.1475-4932.1956.tb00434.x.*

Taiwo, A. & Yusufu, A. (2012). Impact of small and medium enterprises on economic growth and development. *American Journal of Business and Management*.2(5), 23-45.

Uchehara, F. O. (2019). Effects of MSMEs in sustainable rural development in Nigeria. *Int'l. Journal of Trend in Scientific Research and Development (UTSRD).* 1(6), 531-541.

Udoh, J. E. (2015). Taxing the informal economy in Nigeria: Issues challenges and opportunities. *Int'l Journal of Business and Social Science*, 6(10), 160-175.

World Bank (2020). World bank group support for small and medium enterprises: A Synthesis of Evaluative Findings & Project Performance Assessment Report (Guinea). 10-22.

Yahaya, H. D., Geidam, M. M. & Usman, M. U. (2016). The role of MSMEs in the economic development of Nigeria. *Int'l Journal of Small Business and Entrepreneurship Research.* 4(3), 33-47.