

Small and Medium Enterprises and Economic Growth in Nigeria

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ABSTRACT

Small and Medium Enterprises (SMEs) form the very base upon which the big business organizations are built and they have proved to be a major tool adopted by the developed nations to attain socio-economic development. Most of the previous studies focused primarily on financial aspects such as bank credit, financing options, or investment levels when assessing the impact of SMEs on economic growth. This study investigates the roles of non-financial factors such as employment in service, export, or regulatory frameworks in shaping the relationship between SMEs and economic growth.

The study employed historical research design using secondary time series data on GDP annual growth rate and export (% GDP), employment in service (% of total employment), service value added (% GDP), et cetera,. Ordinary least square estimation technique was used. The data were subjected to pre-estimations and statistical evaluations.

Findings revealed that the short – run dynamic regression of the model indicates that in the short run, the coefficient of export in the current and lagged values are negatively signed and the lagged export variable is statistically significant. The coefficient for employment in service is positively signed in the current and negatively signed in their respected lagged year but not statistically significant, suggesting that they may not have a significant impact on economic growth. The coefficient for service value added current value is negatively related to gross domestic product, and is statistically significant. In the long run, the coefficient for export is positively related to Gross domestic product and very significant. The coefficient for employment in services is positively but not significant. The coefficient for service value added is negatively related to Gross domestic product but insignificant.

The study therefore concludes that SMEs are engine of economic growth. The study therefore recommends that government provide financial access to SMEs in order to increase domestic economic activities that will spur exports, so as to achieve increase in employment and spur further economic development.

Keywords: Service Value Added, Employment, Exports, Economic Growth

INTRODUCTION

Small and Medium Enterprises (SMEs) as defined by the European Commission (2003) is a business organization having less than 250 persons employed; having annual turnover of up to EUR 50 million or a balance sheet total of not more than EUR 43 million. A breakdown by the commission revealed the number of employees each class of business should have. For instance, Micro Enterprises have less than 10 persons employed; Small Enterprises have 10-49 persons employed; and Medium sized enterprises have 50-249 persons employed; and Large Enterprises have 250 or more persons employed.

Small and Medium Enterprises (SMEs) form the very base upon which the big business organizations are built (Onakoya, Fasanya and Abdulrahman, 2013). They have proved to be a major tool adopted by the developed nations to attain socio-economic development (Olaye, Adedeji and Ayeni-Agbaje, 2018). Small and medium-

sized businesses play a crucial role in the global economy by creating a large percentage of jobs. However, in Nigeria, these businesses face the following challenges; inadequate telecommunications infrastructure, weak road networks, restricted access to electricity, and Nigeria's generally unfavorable infrastructure have made it difficult for SMEs to function effectively and thrive. And limited access to financing particularly from financial institutions makes it difficult for SMEs to invest in necessary apparatus for operations such as equipment, hiring of new employees and expanding operations. Although, the main constraints of SMEs in developing economies like Nigeria are financing (inadequate access to funding) and high tax rate. In an attempt to reduce their risk portfolio, deposit money banks (commercial banks) lend less to SMEs as most of the small and medium businesses do not demonstrate high profitability prospects, especially in the early years of their operations (Ilegbinosa and Jumbo, 2015). SMEs in Nigeria pay company tax of 30% (from the income of the company), Value Added Tax of 5% (paid when goods are purchased), Withholding Tax ranging from 5% to 15% based on the services or transaction and Stamp Duties (charged when documents are executed and the amount payable is decided by the Commissioner of Stamp Duties) (Federal Inland Revenue Service, 2019). And the aforementioned makes up the finance and tax constraint SMEs faces in Nigeria besides poor management, inadequate infrastructural facilities, competition with foreign and larger companies, poor power supply, high cost of raw materials, high cost of operation, low level of technology, insurgency, and political/economic instability mentioned earlier. Nevertheless, despite the efforts and contributions of past and present government towards promoting Nigeria, the contribution of this sector to the economy still remain relatively small in terms of its impact on gross domestic product (GDP), unemployment and poverty reduction. The rate of unemployment in this country is still high and majority of the population still live in poverty (Ekezie, 1995; Bacdom, 2004; Iromaka, 2006). Whereas the aim of any economy (either industrialized or not) depends largely on how well managed the small scale industries are, for example, if we take a look at the standard practice of small scale industries in economically developed countries like United Kingdom or United State of America, it can be observed that they depend largely on small scale industries to reach out to the people (Etebefia & Kinkumi, 2013).

Many nations' Gross Domestic Products (GDPs) are significantly impacted by SMEs. Even while individual SMEs may have lower turnovers than big businesses, their combined economic impact is significant. Numerous SMEs working in several sectors together account for a sizeable portion of the country's GDP. Establishing an environment that supports SMEs' success and contributes to long-term economic growth through facilitating access to capital, delivering business development services, and offering regulatory support will be very significant to an economy

Nigeria as a developing nation is potent with large number of SMEs, which makes them veritable sources of economic growth, however going by all indices of SMEs contribution to economic growth in the long run such as employment generation, etc the fact still remains that unemployment is still very in the country . Therefore to what extent does SMEs provide economic growth? And does SMEs contribute to export in recent years. These are pertinent questions which require serious investigation. Therefore, the study examines how SMEs contribution to exports promotion and employment generation impact on economic growth in Nigeria.

LITERATURE REVIEW

The empirical literature research includes several literature reviews on the impact of small medium enterprise on economic growth in Nigeria

Obi, Ibidunni, Tolulope, Olokundun, Amaihian, Borishade and Fred (2018) examined the contribution of small and medium enterprises to economic development in a transition economy like Nigeria. The study used data from 600 respondents in 60 small scale enterprises located in different parts of the country, including Lagos State, Anambra State and Kano State. The data were analysed using tables, percentages and Chi-square (X²). The findings revealed that there is a significant relationship between the operation of small and medium scale enterprises and economic growth in developing economy like Nigeria. In an attempt to examine the effect of SMEs on economic growth in Nigeria, Okhankhuele (2017) used Pearson Correlation technique to analyse data collected from secondary sources from 1982 to 2012. The study found that there is a significant positive relationship between SMEs (proxied by SMEs share in GDP) and Gross Domestic Product (GDP).

Using t-test, Oaya and Mambula (2017) assessed the impact of SMEs financing on business growth in Nigeria. The study used primary data and 896 SMEs in Keffi and Mararaba metropolis were chosen as respondents for the study. The study discovered that bank's credit to SMEs has a significant impact on the growth of Nigerian economy. Ilegbinosa and Jumbo (2015) studied the relationship between small and medium scale enterprises and economic growth in Nigeria from 1975-2012. Cointegration and error correction model were used in analysing the data collected. The results showed that finance available to SMEs showed a positive relationship with economic growth (proxied by gross domestic product) while interest rate and inflation rate showed a negative and positive influence on economic growth respectively.

Employing secondary data spanning 1998 to 2017, Olaoye, Adedeji and Yyeni-Agbaje (2018) explored the impact of commercial bank lending to small and medium scale enterprises (SMEs) on Nigerian economy. The study applied correlation analysis, ordinary least square regression and Granger causality test. The findings revealed that commercial bank loans to SMEs has a negative but not significant impact on gross domestic product (GDP); Average commercial bank lending rate to SMEs has a negative but not significant impact on GDP; and inflation rate has a positive but not significant effect on GDP. The study also found that there is no causal relationship between the independent variables (commercial bank loans to SMEs, average commercial bank lending rate to SMEs and inflation rate) and the dependent variable (GDP – A proxy for Nigerian economy).

Myslimi and Kacani (2016) examined the impact of small and medium scale enterprises (SMEs) on economic growth in Albania during the period of 1995- 2015. Applying ordinary least square regression technique, the study found that SMEs have no significant impact on real GDP – a proxy for economic growth. Rather, the study found a significant impact of micro and large enterprises on economic growth in Albania. The study of Onakoya, Fasanya and Abdulrahman (2013) examined the impact of financing small and medium scale enterprises on economic growth in Nigeria using a quarterly time series data from 1992 to 2009. The study employed ordinary least square regression technique. Findings of the study showed that loan to small-scale entrepreneurs have a positive impact on economic growth (proxied by real GDP) while interest rate has a negative impact on economic growth.

Bello, Jibir and Ahmed (2018) studied the impact of small and medium scale enterprises on economic growth of Nigeria using time series data spanning between 1986 and 2016. The study employed ordinary least square regression technique in analysing the data collected. The result of the study revealed a positive and significant relationship between small and medium scale enterprises (proxied by total output of SMEs and Bank credit to SMEs) and output growth (represented by real GDP). The result indicated that small and medium scale enterprises in Nigeria make positive contribution towards the development of Nigerian economy. Using primary data sourced from 150 respondents from 16 local government areas of Ekiti State, Opafunso and Adepoju (2014) studied the impact of small and medium scale enterprises on economic development of Ekiti State of Nigeria. Chi-square was used to analyse the data collected. The findings of the study revealed that there is a positive and significant relationship between SMEs and poverty reduction, employment generation and improvement in standard of living of people in Ekiti State.

Akingunola (2011) examined specific financing options available to SMEs in Nigeria and contribution to economic growth via investment level. The Spearman's Rho correlation test was employed in analysing the secondary data collected. The result indicated that there is a significant positive relationship between SMEs financing (represented by credit to SMEs) and economic growth (represented by investment) in Nigeria. Employing survey method to gather data from 200 respondents, Mauritala, Awolaja and Bako (2012) analysed the impact of small and medium scale enterprises on economic growth and development. The results of the study revealed that the most common constraints hindering small and medium scale business growth in Nigeria are lack of financial support, poor management, corruption, lack of training and experience, poor infrastructure, insufficient profits, and low demand for product and services. Thus, the hindrances limit SMEs ability to contribute to economic growth and development.

Eze and Okpala (2015) evaluated the impact of small and medium scale enterprises on Nigeria's economic growth using data from 1993 to 2011. The Johansen cointegration test was conducted. The result showed evidence of cointegration, implying that there is a long-run relationship between small and medium scale

enterprises and economic growth. Using ordinary least square regression technique, Otugo, Edoko and Ezeanolue (2017) appraised the effect of small and medium enterprises on economic growth in Nigeria. The results revealed that small and medium enterprise, government expenditure to small and medium enterprise, employment generations, commercial bank credit to small and medium enterprise and lending rate to small and medium enterprises have a significant positive impact on economic growth in Nigeria. The study also found that Corruption has a significant negative impact on economic growth in Nigeria.

Gaps in literature

Based on findings in the empirical literature, SMEs contribute significantly on economic growth. Notably, most empirical studies relied on specific statistical techniques like correlation analysis or ordinary least squares regression to examine the relationship between SMEs and economic growth. While these methods provide valuable insights, a more comprehensive analysis could involve employing a combination of different statistical techniques to examine the relationship from various angles. Most of the studies focus primarily on financial aspects such as bank credit, financing options, or investment levels when assessing the impact of SMEs on economic growth. However, other non-financial factors such as employment in service, export, or regulatory frameworks could also play a significant role in shaping the relationship between SMEs and economic growth and this study investigates these missing updates.

Stylized facts

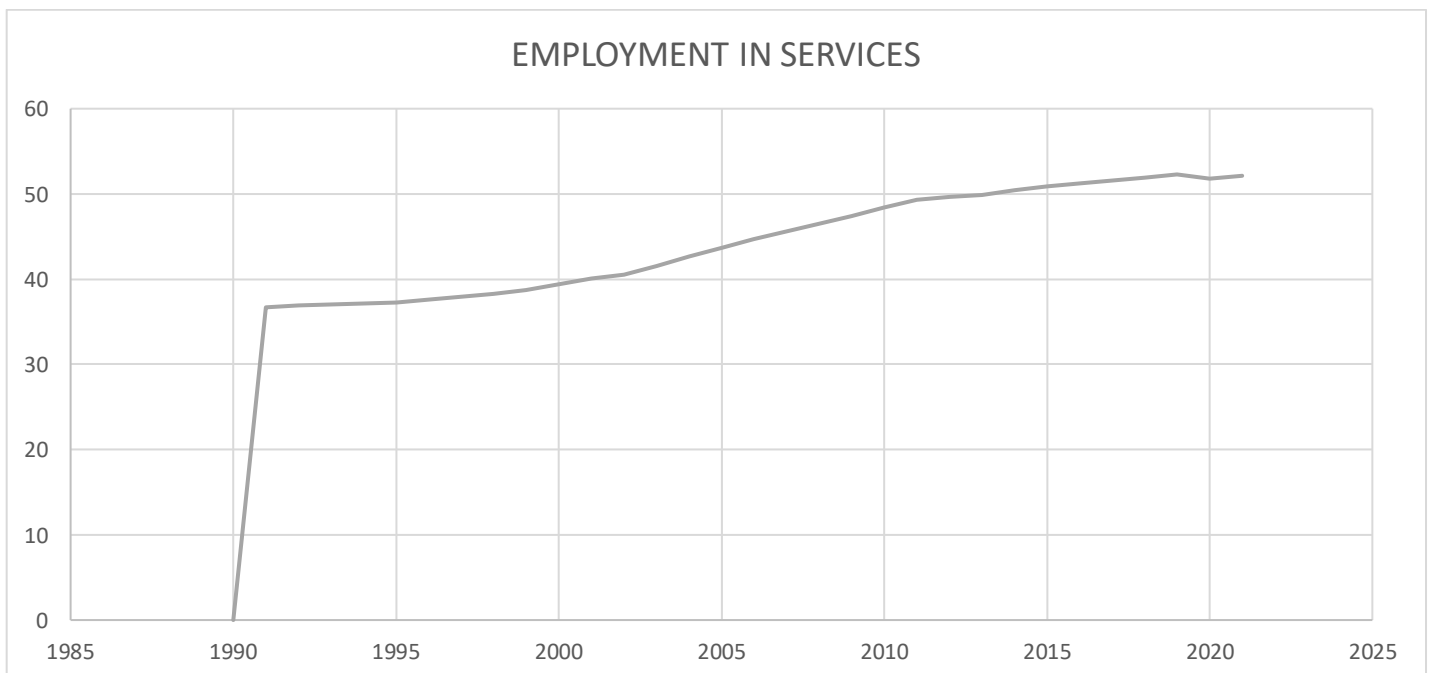
Fig 3.1: GDP annual growth rate trends



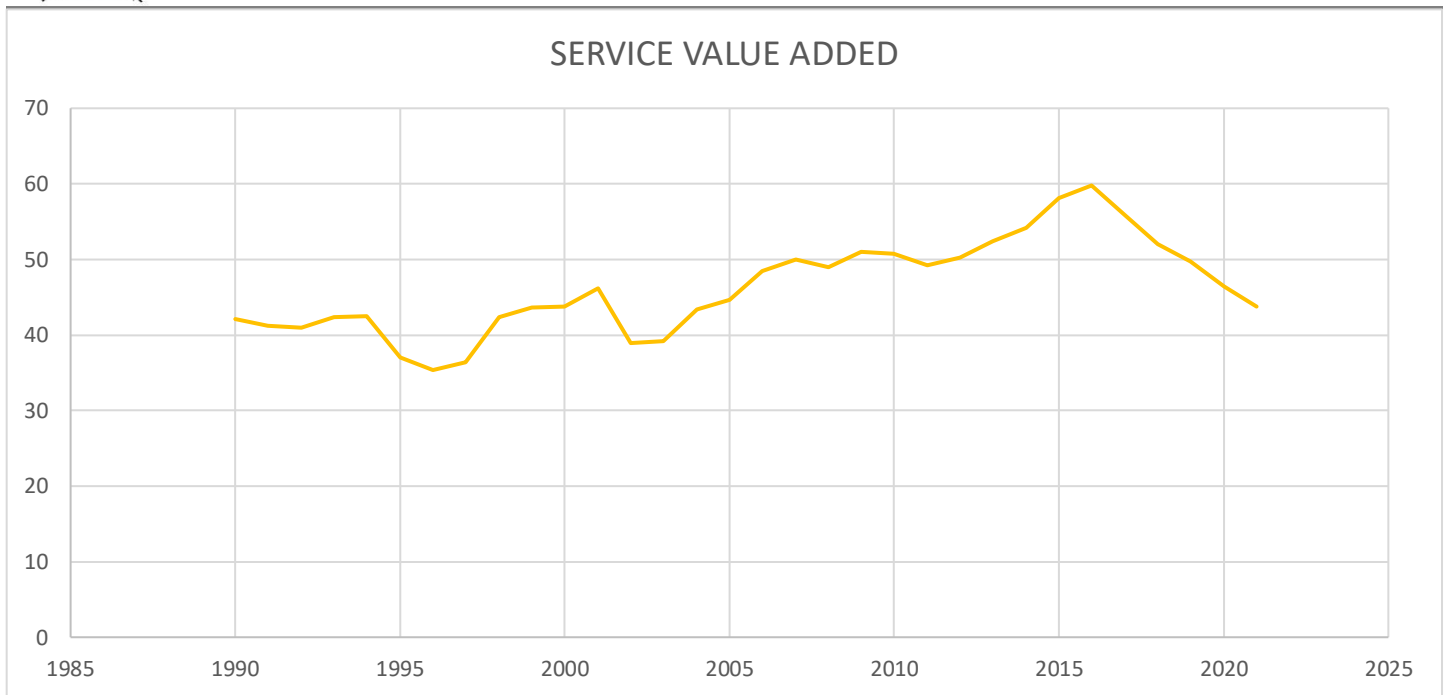
Fig 3.1 shows the growth rate of GDP from 1990 to 2021 an average of 10years is taken as an interval, it can be deduced from the fig 3.1 that GDP growth rate in 1990 stood at about 11 percent, this increase could likely be attributed to trade openness of Nigeria economy with the rest of the world under the leadership of General Ibrahim Babangida then president of Nigeria although there was an inconsistency of the growth rate within 1990 to 2000(10years). In 2000 the growth rate dropped from 11 percent which it stood in 1990 to 4.2 in 2000. An upward trend persisted in 2001 to the tune of 5.4 percent and stood at 8.1 percent in 2010. In 2020 there was a negative growth rate and this is likely attributed to covid 19 pandemic that ravaged the whole world which crippled business activities.



.Fig 3.2 shows the trend of total value of exports in billions of dollar from 1993 to 2024. The total value of exports stood at about 20.3 billion in dollars in 1990 this could be likely attributed to trade openness of Nigerian economy under the leadership of general Ibrahim Babangida . There was an inconsistency in growth rate from the span of 1990 to 2000 (10years) , in 2000 export rose to the tune of 30.4 billion this could likely be attributed to different economic reform embark by the president of Nigeria (Rtd general Olusegun Obadanjo) to enhance export such as trade missions, export incentives , economic diplomacy etc. there was an inconsistency in export growth in between 2000 to 2010 , in 2010 export stood about 25billion , in 2020 there was a decline in export as it dropped to 5.6billion this fall could be likely be attributed to the COVID 19 pandemic which ravage the whole world , that eventually lead to economic recession



.Fig 3.3 shows the trend of total value of employment in service in percentage from 1993 to 2024.In 1990 employment stood at about 30.7 percent this could be likely attributed to structural adjustment program (SAP) which was a set of economic reform aimed at addressing Nigeria’s economic challenges under the leadership of president General Ibrahim Babangida, the trend has been consistently in growth has it stood about 50.3 percent in 2019 and took slight decline of 0.2 percent in 2020 due to COVID 19 pandemic that ravaged the whole world



.Fig 3.4 shows the trend of total value of service value added in billions of naira from 1993 to 2024. An average of 10 years is taken as an interval, it can be deduced from the fig 3.4 In 1990 service value added stood about 40.2 billion this can be likely attributed to trade openness of Nigerian economy under the leadership of general Ibrahim Babangida, fast forward to 2000 (10 years) where service value added stood at about 40.4 billion, it had an inconsistency trend within the ten years span as it was noticed a drop in 1996 where it stood 30.6 billion Naira. In 2010 service value added rose to 50.1 billion Naira this could be likely attributed to vision 2020 implemented by then president of the federal republic of Nigeria Goodluck Ebele Jonathan, the initiative was aimed to transform Nigeria the top 20 economies in the world in 2020. Although in 2020 the service value added had a decline due to COVID 19 pandemic to the tune of 40.6 billion

THEORETICAL FRAMEWORK

The late 1970s and early 1980s saw the development of the institutional theory. Sociologists like John W. Meyer and Brian Rowan, who studied how institutional contexts affect organizations, are credited with developing the foundational work on institutional theory. According to institutional theory, the institutional framework in which small and medium-sized businesses (SMEs) operate can significantly affect both their growth and, as a result, economic growth. A theory of institutions the chances for expansion of SMEs are substantially influenced by institutions, such as legislative frameworks, regulatory environments, and support networks. Favorable institutional frameworks, such as reduced business regulations, funding availability, and encouraging government policies, can encourage SME development and help global economic expansion.

METHODOLOGY

Model Specification

The model for this study specified functionally as

$$GDP = f(SVA, EXP, EMP) \quad (1)$$

$$GDP = \beta_0 + \beta_1 SVA + \beta_2 EXP + \beta_3 EMP + U \quad (2)$$

Where, GDP represents; gross domestic product (% annual growth), EXP represents export (% GDP), EMP represents; employment in service (% of total employment), SVA represent; service value added (% GDP)

Data analysis and discussion

Table 3.1 Descriptive statistics

	Gdp_Annual_Gr	Service_V Alue_Add Ed	Export	Employment_In_Services
Mean	4.320114	46.27066	21.11458	43.09594
Median	4.430627	45.45334	21.13515	44.17952
Maximum	15.32916	59.78510	36.02327	52.28580
Minimum	-2.035119	35.35823	8.118312	0.000000
Std. Dev.	4.017196	6.237390	6.929245	9.738760
Skewness	0.435426	0.252695	-0.020561	-2.688891
Kurtosis	3.286568	2.392613	2.443857	12.98412
Jarque-Bera	1.120671	0.832450	0.414648	171.4708
Probability	0.571017	0.659532	0.812756	0.000000
Sum	138.2437	1480.661	675.6666	1379.070
Sum Sq. Dev.	500.2737	1206.056	1488.448	2940.147
Observations	32	32	32	32

The table presents descriptive statistics for four variables stated in the model specification above, which is GDP, SVA, EXP and EMP

The mean annual GDP growth rate is 4.32, and the median is 4.43, indicating a slightly right-skewed distribution. The range of growth rates is quite large, with a minimum of -2.04 and a maximum of 15.33. The standard deviation of the growth rate is 4.02, indicating that the values are spread out around the mean.

The mean contribution of the service value added to GDP is 46.27, and the median is 45.45. The standard deviation of service value added is 6.24, indicating moderate variability. The distribution of this variable is slightly right-skewed.

The mean value of exports is 21.11, and the median is 21.14. The range of export values is also quite large, with a minimum of 8.12 and a maximum of 36.02. The standard deviation of exports is 6.93, indicating that the values are spread out around the mean. The distribution of export values is slightly left-skewed.

The mean percentage of employment in the service sector is 43.10, and the median is 44.18. The standard deviation of employment in services is 9.74, indicating high variability. The distribution of employment in services is highly left-skewed, as indicated by the negative skewness value of -2.69.

The kurtosis values for all variables indicate that the distributions are leptokurtic, meaning they have a sharper peak and heavier tails than a normal distribution. The Jarque-Bera test statistic is used to test for normality, and the p-values for all variables indicate that we cannot reject the null hypothesis of normality at a 5% significance level, except for employment in services where the p-value is 0, indicating that it is not normally distributed.

The data as a whole hints at a wide range of variables with varied levels of unpredictability and skewness.

OLS estimation

Table 3.2

Dependent Variable: GDP_ANNUAL_GR				
Method: Least Squares				
Date: 05/03/26 Time: 08:44				
Sample: 1993 2024				
Included observations: 32				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
SERVICE_VALUE_ADDED	0.130594	0.139048	0.939201	0.3557
EXPORT	0.233214	0.106263	2.194691	0.0366
EMPLOYMENT_IN_SERVICES	-0.108855	0.085101	-1.279128	0.2114
C	-1.955568	6.697095	-0.292002	0.7724
R-squared	0.204021	Mean dependent var		4.320114
Adjusted R-squared	0.118737	S.D. dependent var		4.017196
S.E. of regression	3.771167	Akaike info criterion		5.609114
Sum squared resid	398.2075	Schwarz criterion		5.792331
Log likelihood	-85.74583	Hannan-Quinn criter.		5.669846
F-statistic	2.392266	Durbin-Watson stat		1.322419
Prob(F-statistic)	0.089688			

Source: Authors' computation

The coefficient for service value added is positively related to Gross domestic product, this shows that a unit change in service value added leads to an increase in Gross domestic product by 0.13 percent. Also, the corresponding probability reveals to be insignificant at 0.3557 greater than 5 percent level of significant.

The coefficient for export is positively related to Gross domestic product, this shows that a unit change in export leads to an increase in Gross domestic product by 0.23 percent. Also, the corresponding probability reveals to insignificant at 0.0366 greater than 5 percent level of significant.

The coefficient for employment in services is negatively related to Gross domestic product, this shows that a unit change in employment in services leads to a decrease in Gross domestic product by 0.10 percent. Also, the corresponding probability reveals to be insignificant at 0.2114 greater than 5 percent level of significant

- T-test that explains the individual significant of each the variables, where variables (SVA,EMP) were insignificant at 5% (0.05) while (EXP) was significant at 5% (0.05)

- The F- statistic that measures the joint significant of the variables, in other words the F statistics that measures the overall significance of the model. The model is significant because of the probability value is greater than 5% (0.05).
- The Durbin-Watson stat, that shows if there is presence of autocorrelation, has a negative autocorrelation at 1.322419

The study continued to assess each variable's stationarity independently to determine what strategy to use based on the premise of the aforementioned results

-unit root test and co-integration properties of variables

The first step in analyzing the relationship among macroeconomic variables is to check whether the variables in the model are stationary, (Lise and Montfort,2005). Using the augmented Dickey-fuller (ADF) test, the results of the test are presented in table 3.2 evidently based on their critical values, most variables are stationary at level co-integration (GDP) of ADF while (SVA,EMP,EXP)s was stationary at first difference order co-integration .

Table 3.3

ADF VARIABLES	ADF STATISTICS	CRITICAL VALUES	PROBABILITY VALUES	LEVELS OF COINTEGRATION	REMARKS
GDP	-3.625627	-2.960411	0.0109	I(0)	STATIONARY
SVA	-3.977763	-2.963972	0.0047	I(1)	STATIONARY
EMP	-98.28422	-2.963972	0.0001	I(1)	STATIONARY
EXP	-7.175106	-2.963972	0.0000	I(1)	STATIONARY

Source: Authors’ computation

Since the variable in the ADF test conducted where stationary at difference level of cointegration , the study went further to adopt the ARDL estimation technique

ARDL Bounds Test					
Date: 05/18/26 Time: 10:42					
Sample: 1993 2024					
Included observations: 28					
Null Hypothesis: No long-run relationships exist					
Test Statistic	Value	K			
F-statistic	9.731508	3			
Critical Value Bounds					

Significance	I0 Bound	I1 Bound		
10%	2.72	3.77		
5%	3.23	4.35		
2.5%	3.69	4.89		
1%	4.29	5.61		

Source: Authors' computation

The result presented in table, shows that the calculated F-statistics of 9.731508 is higher than the upper bound critical value of 4.35 at 5% significant level. Based on this result, it is concluded that a long run relationship exists among the variables. So, there is a long run co-integration amongst the variables in the model.

ARDL-ECM Short-run Results

ARDL Cointegrating And Long Run Form				
Dependent Variable: GDP_ANNUAL_GR				
Selected Model: ARDL(4, 2, 4, 1)				
Date: 03/05/26 Time: 10:58				
Sample: 1993 2024				
Included observations: 28				
Cointegrating Form				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(GDP_ANNUAL_GR(-1))	-0.141364	0.242294	-0.583441	0.5696
D(GDP_ANNUAL_GR(-2))	-0.002653	0.185935	-0.014270	0.9888
D(GDP_ANNUAL_GR(-3))	-0.264849	0.137523	-1.925853	0.0763
D(EXPORT)	-0.129448	0.065710	-1.969999	0.0705
D(EXPORT(-1))	-0.217256	0.076633	-2.835036	0.0141
D(EMPLOYMENT_IN_SERVICES)	7.946318	1.784404	4.453205	0.0007
D(EMPLOYMENT_IN_SERVICES(-1))	-1.148200	3.691171	-0.311067	0.7607
D(EMPLOYMENT_IN_SERVICES(-2))	-0.458693	2.329450	-0.196911	0.8469
D(EMPLOYMENT_IN_SERVICES(-3))	-0.210351	0.069976	-3.006044	0.0101
D(SERVICE_VALUE_ADDED)	-0.664504	0.136691	-4.861373	0.0003

CointEq(-1)	-0.858982	0.330979	-2.595281	0.0222
Cointeq = GDP_ANNUAL_GR - (0.4247*EXPORT + 0.1803				
*EMPLOYMENT_IN_SERVICES -0.1596*SERVICE_VALUE_ADDED				
-8.4558)				

Explanation of estimated short run model

The result of the short – run dynamic regression of the model is presented in table 3.3. The regression result indicates that in the short run, the coefficient of export in the current and lagged values are negatively signed, that is a unit change in export will lead to a decrease in gross domestic product by 0.12 in the current year and 0.21 in the lag year respectively. The lagged export variable has a statistically significant coefficient (t-statistic = -2.835036, p-value = 0.0141), indicating that lagged exports have a significant impact in the short run.

The coefficient for employment in service is positively signed in the current and negatively signed in their respected lagged year. The coefficient for the current employment in service is 7.946318, indicating that a unit change in the current employment in service will leads to a significant increase in gross domestic product by 7.9 percent . However, the coefficients for the lagged employment variables are not statistically significant, suggesting that they may not have a significant impact on economic growth.

The coefficient for service value added current value is negatively related to gross domestic product, suggesting a unit change in service value added will lead to a decrease in gross domestic product by 0.66.The coefficient is statistically significant (t-statistic = -4.861373, p-value = 0.0003), suggesting that current service value added has a significant impact on gross domestic product, that is,do not pose any threat to economic growth in the short run.

The ECM turned up with a negative value of -0.858982 as the ECM coefficient which suggests 85% speed of adjustment. This means that approximately 85% of discrepancy in the previous year is adjusted for the current year.

ARDL Long Run Regression

Long Run Coefficients				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
Export	0.424727	0.172393	2.463709	0.0285
Employment_In_Services	0.180264	0.184214	0.978560	0.3457
Service_Value_Added	-0.159583	0.146352	-1.090402	0.2953
C	-8.455845	6.373034	-1.326816	0.2074

Source: Authors’ computation

The result of the long run regression estimates for RGDP model is presented in table 4.

The coefficient for export is positively related to Gross domestic product, this shows that a unit change in export leads to an increase in Gross domestic product by 0.42 percent. Also, the corresponding probability reveals to significant at 0.0285 lesser than 5 percent level of significant, that is export does impact on economic growth in the long run.

The coefficient for employment in services is positively related to Gross domestic product in long run, this shows that a unit change in employment in services leads to an increase in Gross domestic product by 0.18 percent. Also, the corresponding probability reveals to be insignificant at 0.3457 greater than 5 percent level of significant.

The coefficient for service value added is negatively related to Gross domestic product in the long run, this shows that a unit change in service value added leads to a decrease in Gross domestic product by 0.15 percent. Also, the corresponding probability reveals to be insignificant at 0.2953 Greater than 5 percent level of significant.

Residual Diagnostics Test

Breusch-Godfrey Serial Correlation LM Test:			
F-statistic	3.374497	Prob. F(2,11)	0.0720
Obs*R-squared	10.64690	Prob. Chi-Square(2)	0.0049

Source: Authors’ computation

The F-test is typically used to test the joint significance of a group of variables in a regression model. In this context, it is being used to test the null hypothesis of no serial correlation in the residuals. The p-value for the F-test is 0.0720, which is greater than the conventional significance level of 0.05. This suggests that there is not enough evidence to reject the null hypothesis of no serial correlation.

On the other hand, the chi-square test is specifically designed to test for serial correlation in the residuals. The p-value for the chi-square test is 0.0049, which is less than 0.05. This indicates that there is sufficient evidence to reject the null hypothesis of no serial correlation and conclude that there is serial correlation in the residuals.

The discrepancy between the two tests may arise due to differences in the assumptions and statistical properties of the tests. The F-test assumes that the residuals are normally distributed and independent, while the chi-square test is based on the assumption of no serial correlation. If the assumptions of the F-test are violated, it can lead to inaccurate results. Additionally, the chi-square test is specifically designed to detect serial correlation, making it more sensitive to such patterns in the data.

Therefore, in this case, it would be more accurate to rely on the results of the chi-square test, which provide evidence of serial correlation in the residuals. This suggests that there is a pattern of autocorrelation in the residuals, and further analysis should be conducted to address and account for this issue in the regression model.

Heteroskedasticity Test: Breusch-Pagan-Godfrey			
F-statistic	0.795274	Prob. F(14,13)	0.6627
Obs*R-squared	12.91744	Prob. Chi-Square(14)	0.5330
Scaled explained SS	1.772653	Prob. Chi-Square(14)	1.0000

Source: Authors’ computation

The null hypothesis states that there is no heteroskedasticity. Since each of the F-statistics probability value is greater than five percentage we cannot reject the null hypothesis of no heteroskedasticity. It thus means that the result of the model can be taken seriously, that is the result is good for forecast.

Pairwise Granger Causality Tests			
Date: 03/05/26 Time: 08:31			
Sample: 1993 2024			
Lags: 2			
Null Hypothesis:	Obs	F-Statistic	Prob.
EXPORT does not Granger Cause GDP_ANNUAL_GR	30	2.12122	0.1410
GDP_ANNUAL_GR does not Granger Cause EXPORT		0.33866	0.7159
EMPLOYMENT_IN_SERVICES does not Granger Cause GDP_ANNUAL_GR	30	0.15116	0.8605
GDP_ANNUAL_GR does not Granger Cause EMPLOYMENT_IN_SERVICES		15.8946	4.E-05
SERVICE_VALUE_ADDED does not Granger Cause GDP_ANNUAL_GR	30	0.11907	0.8883
GDP_ANNUAL_GR does not Granger Cause SERVICE_VALUE_ADDED		3.29480	0.0537
EMPLOYMENT_IN_SERVICES does not Granger Cause EXPORT	30	1.46611	0.2500
EXPORT does not Granger Cause EMPLOYMENT_IN_SERVICES		1.72455	0.1988
SERVICE_VALUE_ADDED does not Granger Cause EXPORT	30	0.75733	0.4794
EXPORT does not Granger Cause SERVICE_VALUE_ADDED		2.07146	0.1471
SERVICE_VALUE_ADDED does not Granger Cause EMPLOYMENT_IN_SERVICES	30	0.76883	0.4742
EMPLOYMENT_IN_SERVICES does not Granger Cause SERVICE_VALUE_ADDED		2.20673	0.1310

Pairwise Granger causality tests were conducted with a sample period from 1990 to 2021 and a lag of 2. The results are as follows:

From the results, there is no causality between export and GDP as their probability value are insignificant, greater than the five percent level significant (0.05)

There is no causality between employment in service and GDP as their probability value are insignificant, greater than the five percent level significant (0.05)

From the result, there is a uni-directional causality between GDP and service value added, as the probability value for GDP to service value added is significant at 5 percent level of significant while service value added to GDP is insignificant, greater than 5percent level of significance (0.05)

From the results, there is no causality between employment in service and Export as their probability value are insignificant, greater than the five percent level of significant(0.05)

From the results, there is no causality between service value added and Export as their probability value are insignificant, greater than the five percent level of significant (0.05)

From the results, there is no causality between service value added and Employment in service as their probability value are insignificant, greater than the five percent level of significant (0.05)

CONCLUSIONS AND RECOMMENDATIONS

This paper empirically investigated the impact Small and Medium Enterprises (SMEs) on economic growth in Nigeria from the period 1993 to 2024. An OLS pre-estimation was conducted where the study discovered that the model was not fit from a-priori expectation where the model displayed R-Squared is less than 0.50 explaining the model is fit not at 0.20, a stationarity test was further conducted (ADF) to analyze the relationship among macroeconomic variables and to check whether the variables in the model are stationary and at what level of co-integration, the ADF test results showed some of the variables (SVA, EMP, EXP) were stationary at first difference and at level difference (GDP). The study further went and conducted an ARDL Bound Test to examine if there is a long run relationship, and discovered there is a long co-integration. The empirical results reveal that in the short run, the coefficient of export in the current and lagged values are negatively signed and The lagged export variable has a statistically significant coefficient (t-statistic = -2.835036, p-value = 0.0141), indicating that lagged exports have a significant impact in the short run. The study therefore recommends that government ought to increase economic activities that will spur export, so as to achieve increase in employment and regional development, this is evidently proved by the coefficient of the current value (0.12, 0.42) in the short run and long run

REFERENCE

1. Onakoya, A. B. O., Fasanya, I. O., & Abdulrahman, H. D. (2013). *European Journal of Business and Management*, 5(4), 130-136
2. Olaoye, C. O., Adedeji, A. Q., & Ayeni-Agbaje, R. A. (2018). Commercial bank lending to small and medium scale enterprises and Nigerian economy. *Journal of Accounting, Business and Financial Research*, 4(2), 49-55
3. Ilegbinosa, I. A., & Jumbo, E. (2015). Small and medium scale enterprises and economic growth in Nigeria: 1975-2012. *International Journal of Business and Management*, 10(3), 203-216
4. European Commission (2003). *Structural business statistics & global business activities*. Available on ec.europa.eu/eurostat/web/structural-businessstatistics/
5. Bello, A., Jibir, A. & Ahmed, I. (2018). Impact of small and medium scale enterprises on economic growth: Evidence from Nigeria. *Global Journal of Economics and Business*, 4(2), 236-244
6. Obi, J., Ibidunni, A. S., Tolulope, A., Olokundun, M. A., Amahian, A. B., Borishade, T. T., & Fred, P. (2018). Contribution of small and medium enterprises to economic development: evidence from a transiting economy. *Data in brief*, 18, 835-839
8. Okhankhuele, O. T. (2017). Effect of small and medium scale enterprises on economic growth in Nigeria. *JORIND*, 15(1), 8-20
9. Oaya, Z. C. T., & Mambula, C. J. (2017). The impact of SMEs financing on business growth in Nigeria: A study of Keffi and Mararaba metropolis. *International Journal of Innovation and Economic Development*, 3(2), 44-55
10. Ilegbinosa, I. A., & Jumbo, E. (2015). Small and medium scale enterprises and economic growth in Nigeria: 1975-2012. *International Journal of Business and Management*, 10(3), 203-216
11. Business and Management, 10(3), 203-216
12. Olaoye, C. O., Adedeji, A. Q., & Ayeni-Agbaje, R. A. (2018). Commercial bank lending to small and medium scale enterprises and Nigerian economy. *Journal of Accounting, Business and Financial Research*, 4(2), 49-5
13. Myslimi, G., & Kacani, K. (2016). Impact of SMEs in economic growth in Albania. *European Journal of Sustainable Development*, 5(3), 151-158

14. Onakoya, A. B. O., Fasanya, I. O., & Abdulrahman, H. D. (2013). European Journal of Business and Management, 5(4), 130-136
15. Opafunso, Z. O. & Adepoju, O. O. (2014). The impact of small and medium scale enterprises on economic development of Ekiti State, Nigeria. Journal of Economic and Sustainable Development, 5(16), 115-123
16. Akingunola, R. O. (2011). Small and medium scale enterprises and economic growth in Nigeria: an assessment of financing options. Pakistan Journal of Business and Economic Review, 2(1), 78-97
17. Mauritala, T. A., Awolaja, A. M., & Bako, Y. A. (2012). Impact of small and medium enterprises on economic growth and development. American Journal of Business and Management, 1(1), 18-22
18. Eze, T. C., & Okpala, C. S. (2015). Quantitative analysis of the impact of small and medium scale enterprises on the growth of Nigerian economy: 1993-2011. International Journal of Development enterprises to economic development: evidence and Emerging Economics, 3(1), 26-38
19. Otugo, N. E., Edoko, T. D. & Ezeanolue, U. S. (2018). Effect of small and medium enterprises on economic growth in Nigeria. Sumerianz Journal of Business Management and Marketing, 1(2), 73-78.