



ASYMMETRIC RELATIONSHIP BETWEEN SMEs FINANCING AND POVERTY REDUCTION IN NIGERIA: AN APPROACH FROM NARDL MODEL

Ikande Ezekiel Uwondo^{1*}, Nanfa Nimvyap², Ajang Janet Daniel², Timnan Bindap Ndam¹, Ngukwarai Isaac Dishok², Idris Safiyanu Elatikpo³

¹Department of Economics, University of Jos.

²Department of Economics, Plateau State University Bokkos.

³Department of Logistics and Maritime Economics, Federal University of Transportation, Daura.

*Corresponding Author

Ikande Ezekiel Uwondo

Department of Economics,
University of Jos.

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Abstract: The panacea to poverty situation in Nigeria is hinge on the significant roles played by huge amount of money allocated to SMEs. Therefore, competitive prices, quality of product and efficient services are provided among industries whether public, private, big, small, simple or complex in operations. In Nigeria, it is projected to be seedbed of novelties, inventions, employment to alleviate poverty. Over the years, these important components are growing exponentially in the midst of huge SMEs financing in Nigeria, yet poverty indices keep rising. It is on this backdrop that this paper investigate the asymmetric connection amid SMEs financing and situations of Poverty in Nigeria evidence Non-linear Autoregressive Distributive Lag (NARDL) model using annual data spanning from (1992-2023). The asymmetric test discovered that co-integrating association exist among the dependent and independent as a variables of concern. The NARDL result shown that the short and long-run of SMEs components have distorted effect on poverty reduction, but the marginal impact of Commercial Bank credit to SMEs and Government Funding to SMEs is statistically significant in reducing poverty in a short run looking at both the positive and the negative components of the explanatory variable, while aggregate capitalization and interest rate does not demonstrate marginal impact on poverty reduction. The long run result uncovered that Commercial bank credit, government Funding negate the estimated sign and the effect is statistically insignificant, it was on the aggregate capitalization that reveals the effect on reducing poverty, but the impact is not statistically significant. The study recommended that; Government should establish SMEs Bank that will aimed at making loans available to SMEs as low as 3-4% interest rate to ameliorate the adverse financial challenges bedeviling the sector because most entrepreneurs relied on personal savings and family for funds.

Keywords: SMEs Financing, Poverty Reduction, Aggregate capitalization, NARDL Bound Testing.

1. Background to the Study

Small and Medium Scales Enterprises (SMEs) are established with the sole objective to provide employment, generate income, improve living conditions of people and create competitive prices to provide qualitative products and services. Generally, Government all over the globe always gives supporting mechanism for certain types of business more especially entrepreneurs that engaged in SMEs business whether simple or complex in their operations. They give certain percentages and pecuniary cares to provide social and political ground for these SMEs to grow so as to achieve it major goals of generating income and subsequently alleviate poverty.

The world over today as recognized that SMEs as the panacea for reducing poverty, this is because these businesses

pause huge potential for generating employment for majority of workforce, growth performance and development, income generation, availability of goods, improving social conditions such as Health, Nutrition and education; substantial local capital formation, increases local raw materials production for the business operation, technological and export expansion are key variables that can alleviate poverty. (Olaitan, 2006; Afolabi, 2015). SMEs has been acknowledge worldwide as a major instrument for economic development which lead to poverty reduction in any given nation, this is because it is a critical cultivating soil for domestic entrepreneurial abilities in the area of technological innovativeness, technical skills and managerial proficiencies boost production and employment as well as income generating income in a private sector economy (Anyanwu, 2001; Ojo, 2003).

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The importance of Small scale enterprises in the third world countries has also anticipated key importance in recent years, which has made Less Developing Countries (LDCs) including Nigeria to pursue the goal of SMEs with determination and vigor, this is because emphasis on self-sufficient model to transform the livelihood of people and the credit that vibrant SMEs gives a developmental objectives and subsequently eliminate abject poverty in the society. (Uwonda & Okello, 2015, Anga, 2014), asserted that, these developmental objectives has well-organized and operational use of resource deployment of local savings for investments, employment creation, development of local entrepreneurship and expertise as well as income delivery which has had vital impact on reducing poverty over the years. Omorogbe (2011) emphasized that the government of Nigeria has keep on determined to the growth and development of these small businesses in the country. This posture has remained progressively echoed in various measures employed to provide appropriate financing, motivations and other policy measures such as monetary, fiscal and industrial model for the growth of subsector. Government has set up schemes and institution in support of SMEs in Nigeria, these includes the Youth Enterprise with Innovation in Nigeria (YOUWIN) and Anchor Borrowers/Traders Money, Micro Finance Banks, Small and Medium-Scale Enterprises Development Agency of Nigeria (SMEDAN), Small and Medium Enterprises Equity Investment Scheme (SMEEIS) and National Enterprise Development Programme (NEDEP) are schemes and institutions government under different administrations set up to encourages and give moral and financial support to SMEs in Nigeria.

However, in order to boost the sources of financial support to small businesses in Nigeria, a communal banking structure to enhance rural progress and to provide start-up principal to entrepreneurs was set up in 1991 by the government; this is to have seamless start-up for businesses. Similarly, Family Economic Advancement Programme (FEAP) was set up 1997, to encourage savings from the family point. Government programme through the Bank of Industry merged NERFUND and NIDB to provide soft loans to SMEs and industrial sector with the interest rate of 10% to encourage families to go into productive ventures. Accordingly, it is no doubt that the government has been making tremendous struggles geared to the growth of SMEs enterprises for a quite some time, aside the abovementioned. Ogujiuba (2004) also opined that a number of SME-financing schemes to inspire the growth of SMEs in Nigeria were formed by the Apex bank in Nigeria with the sole objectives of financing and expanding the small businesses. Refinancing and Rediscounting Facility pattern was established up at considerate amount in 2002 to offer transitory help to Banks that gives financial aids like loans for continuing production in Nigeria. Within the same time, CBN and Bankers' Committee also set up another programme known as Small and Medium Industries Equity Investment Scheme (SMIEIS) that authorized commercial banks to keep 10% of their profit-before-tax yearly for funding of SMEs in the country.

Nigeria government over time has spent huge amount of money to the SMEs Sector that has generated more than 70 per cent employment opportunities to many Nigerians. According to Ibi-Oluwatoba, Ogundele, Awoniyi and Okeya (2020), 26% of government spending reached SMEs from 2013-2014, surpassing its 2010 spending of only 25%. It estimates that government further increased its spending with SMEs in 2015 to 27% of total

procurement spending. It was further reported that government spent ₦4.9 billion directly with SMEs in 2014-2015 and that an additional ₦7.3 billion were earmark for SMEs through supply chains from 2018 to 2019. The financial constraint has been foremost impediment to SMEs improvement in Nigeria; Adelaja (2003) maintained that deficiency of access to institutional financial support has always instituted a contagion challenges to SMEs progression in Nigeria. The hiccups of SMEs financing has received remarkable enquiry efforts from scholars from different field of endeavor. The major constraints include; the cost of capital; risk involves in business; collateral asset situated in a valuable area; the hidden terms on bank credits; and the inadequately of owners capital to start up the business. Government has overtime passed various laws and policies that led to so many schemes aimed at supporting SMEs, the sector remained under-finance and under developed.

Immediately after independence, the challenges of financing SMEs are a robust substantiation of the drift of poverty situations in Nigeria in the midst of several policies thrust. Upholding this point, in 1980, 27.2% of Nigerians citizens were poor, according to NBS, (2012) the percentage rose in the year 1985, 1992, 1996, 2000, 2005 and 2010 to 46.3%, 42.7%, 65.6%, 70%, 73% and 79% respectively. Poverty which is proxy by hunger percentage of population reveals that poverty is still on the increase. The statistics showed that 9.1%, 9.2%, 9.4%, 10.4%, 12.7%, 13.4% and 14.1% in 2012, 2015, 2016, 2018, 2020, 2021 and 2022 respectively. All the same, NBS (2019) recorded that 112 million signifying 67.1% of the country's total populace of 167million with the present of new poverty standard of \$3.2 a day verge put forward by the World Bank are poor. The condition has continued in its infuriating and undesirable drift as SMEs and its funding keeps sky-high in the country. Nevertheless it is bothersome to established that in the 21st century and the significant of entrepreneurship, SMEs are insatiable of funding and the financing challenges keep the usual trend year in and year out and the sector have botched to satisfactorily alleviate poverty despite all the money budgeted for the SMEs in the annual budget.

2. Empirical Literature Review

Orji, Olaniyi, and Adeyemo (2022) evaluated the importance of Micro, Small and Medium Enterprise in the Bwari Area Council of FCT, using Human Capital Development as a tool of poverty reduction in Nigeria. The study experiment the view of 184 small scales business owners in Bwari area council as a case study. Kendal coefficient of concordance method was used in testing the hypotheses. The findings shown those MSMEs ads to human capital developments and its approach for abolition of poverty, since it's creating employments for citizens, and increases their livelihoods. Government purchasing policy that backing domestically manufactured goods and services particularly, small and medium size enterprises must be fully implemented, to assist increase the accomplishments of MSME in Bwari Area Council, this go forth in alleviating poverty in Nigeria was suggested. Aggreh, Orji and Ogechukwu (2022) investigated the relationship between entrepreneurial yield and it impact in reducing Poverty in the Eastern part of Nigeria using Awka as a case study. Designed Questionnaires were administered among 450 respondents. Cronbach Alpha Statistics and descriptive analysis was used to evaluate the responses. It was discovered that entrepreneurial productivity play a vital role in lessen the effect of Poverty indices

among the chosen SMEs in the Awka; Anambra Metropolis. Building of more vocational training center for the acquisition of more entrepreneurial Skills, aptitude to be self-sufficient and learning of more skills in the state by the government was recommended.

Ogunjimi (2021) appraised how SMEs help in reducing the number jobless people in Nigeria. Yearly data were employed WDI (2019) spanning for the period of 27 years. The methodology used is Canonical Co-integrating regression and Dynamic Ordinary Least Square and the finding indicated that jobs created through SMEs is not enough to address the problems of Joblessness in Nigeria and the research recommended that to tackle unemployment, more investment should be channel to SMEs in the country. Oluremi (2021) studied how the development of SMEs is linked to more Jobs creation in Nigeria. A sample of 336 small and medium business owners from 2,690 registered SMEs in the Nigeria capital city Abuja. The result from the multiples regression uncovered that Job creations in Abuja is influence majorly by the presence of the SMEs in the FCT. A similar study was carried out in Jigawa by Shehu (2021) who investigates the influence of entrepreneurship on jobs generation in the State. In HadeJa LGA of the State, 100 respondents were sample with the use of designed questions that capture the Objectives of the Study. It was discovered by the Correlation analysis that a close relationship exist between Job creations, poverty reduction and entrepreneurship development in the state.

In Kaduna state Northern Nigeria, Shettima, Sharma and Banerji (2020), explored the impact of SMEs in creating new Job to the labour force in the State, in order to achieve the goal of the study, 1000 respondents were sample using structured questionnaire. The result of the study reveals that the growth of entrepreneurs significantly creates more jobs to the people in the state. Aami *et al* (2020) evaluated the impact of entrepreneurship education and hunger in Nigeria, 200 respondents were chosen with the use of simple random sampling technique. Simple Logistic regression and correlation analysis were used. The result discovered that SMEs has no significant impact in reducing poverty in Nigeria within the period under consideration.

Umaru and Ibrahim (2019) studied the roles of SMEs as an instrument for reducing poverty indices in Nigeria. A sample size of 335 SMEs owners were examines using structures questionnaires to achieve the objectives. Bootstrapping and technique of path modelling were employed to ascertain the standard error test and the t-statistics were estimated. The result reveals that the growth of entrepreneurship knowledge is positively related with alleviating poverty in Nigeria within the period of the study. Similarly, Ezeanyej *et al* (2019) surveyed how entrepreneurship growth in Nigeria help in reducing poverty among the poor. Narrative-text case study (NTCS) methodology was employed to investigate the objective of the study. Content text examination was deployed using the data from secondary sources. Poverty reduction is the most difficult tasks faced by any growing economy in the world was concluded, this is because the majority of people living in these countries are extremely poverty with zero savings, and hence investment is difficult. It was recommended that entrepreneurial campaigns and saving culture among Nigerians should be encourage and upheld to crackdown poverty indices in the country.

In an attempt to evaluate how Small and Medium Scales businesses alleviate poverty and hunger in Nigeria, Solomon, Olusegun and Olalekan (2019) investigate this situations using questionnaires were administered arbitrarily to workers of 142 in numbers that their business enterprises are formally registered with SMEDAN in Lagos Nigeria. (SPSS) statistical package was used to analyze the data. The hypotheses were tested using statistical tools which include: examination correlation parameters, variance and regression analysis. The result discovered that poverty alleviation responses positively when a lot of people engaged into SMEs businesses in Lagos. The result further discovered that employment opportunities are high through SMEs in Lagos State. It was recommended that loan to necessities and other medium scale enterprises should be given with interest rate as low as 3-4% and financial institutions should give this loans on flexible conditions not demanding high collaterals from the business owners.

Theoretical Framework

Trickledown Theory of SMEs

The idea behind this theory can be traced back to Anderson in 1964, the theory is of the view that placing much prominences on the progress or growth of the businesses like SMEs in the short-term will greatly promote equality in revenue as well as income midst entrepreneurs in the long-run or as the economy developed in a long-term. There are several proposals described by the theory which are connected in chronological order, according to this theory, the prepositions includes: Business can be exhilarated so long as there is a undeviating gains to capitalists, financiers or shareholders; soft loans and tax incentive should be encouraged hearten the SMEs progress, this will enhance their livelihood and Proceeds from the business growth will be or ploughed back in the business to offer more revenue to the business, many labour force will be engaged as new jobs will be created and investment expanding; and many people got employment opportunities, The jobs will support and provision of food and other related needs of poor persons that got the job, thus renew their hope and give them a voice in the society since a poor man has no voice. Through income obtained, savings and fresh opportunities in an open society including education and vocational training, accordingly disparity in income may be lessen finally or wipe out poverty completely.

However, this theory emphasized that the growth obtained at the initial stage will benefits groups of high income earners only hence, descendent to lower income earners after a long period of time. Phillippe and Bolton (1997) opined that the wealth created by these enterprises will fall down or descend to other who are consider very poor the society through wealth distribution. This will go as far as reducing poverty situation and inequality in the society.

Thought, Priem and Butler (2001) noted this theory is not safe from extensive critique for being ambiguous, vague and has shortcoming vis-à-vis functioning soundness in in the context of third world countries like Nigeria. This is because it is challenging for the capital owners (the rich) to assist the less privilege or low income owners to catch-up with rich as the gap between the two classes is very wide and the capitalist in the world are not ready to bridge the gap.

The trickledown theory which is found to capture the relationship between the four components of SMEs (employment, innovation, human capital development and income) which are capable of reducing poverty, and thereby been adopted for the study. The principal variables considered in this theory is found to be captured in the relationship between the major component of SMEs which is new inventions, job creation, wealth creation and human capital development, that are antidote of poverty reduction in any developing economy of the world, thus, the theory is relevant and applicable to so many developing economies who are striving to improve standard of living through SMEs financing.

3. Research Methodology

The research espoused a non-experimental design for the study. It is a research that is descriptive in nature. Sousa, Driessnack and Mendes (20017) noted that Non experimental design is purely descriptive and is at best correlational when compare with others. This research is either an occurrences or condition is described as it occurs or a correlation among two to three variables is defined as it happens. Secondary sources of data spanning from 1992 to 2023 to estimate the model, Poverty sourced from CBN (2022), commercial bank credit, government funding, interest and Aggregate Capitalization on SMEs were sourced from WDI (2021) and CBN (2022). The following functional relationship would be examined; to accomplish its purposes, the study will evaluate or estimate the mathematical form of the models:

$$POVR_t = f(COBC_t, GOFU_t, ACSM_t, INTR_t) \quad - \quad (1)$$

Where: $POVR_t$ = Poverty rate at time t , $COBC_t$ = commercial bank credit to SMEs at time t , $GOFU_t$ = government funding to SMEs at time t , $ACSM_t$ = aggregate capitalization of small and medium enterprises at time t and $INTR_t$ = rate of interest at time t .

Stating Equation 1 in natural log form we have Equation 2. An econometric form of the model can be stated as:

$$\Delta \ln POVR_t = \beta_0 + \beta_1 \ln COBC_t + \beta_2 \ln GOFU_t + \beta_3 \ln ACSM_t + \beta_4 \ln INTR_t + \mu_t - (2)$$

Where β_0 , β_1 , β_2 , β_3 and β_4 are intercept of the model respectively, coefficient of commercial bank credit, coefficient of government funding, coefficient of aggregate capitalization SMEs and coefficient of interest rate while μ_t is the error or disturbance term.

The *a priori* expectation for the relationship of commercial bank credit, government funding to SMEs, aggregate capitalization of small and medium enterprises and interest rate on poverty reduction can be stated in a mathematical form as; $\beta_1, \beta_2, \beta_3 < 0$ and $\beta_4 > 0$ or < 0 . This implies that the coefficient of commercial bank credit, government funding to SMEs, aggregate capitalization of small and medium enterprises are predicted to be negative, whereas the coefficient of interest rate is anticipated to be positive or negative as the case may be.

4. Result and Discussion of Findings

Abu, Kadandani and Obi (2019), maintained that when using ARDL method of estimation, conducting the ADF test to ascertain the order of integration is not necessary important to validate if the data can be used or not. It is not a researcher choice to adopt or employed any particular method of estimation at will. Therefore, Timnan, Azi, Ikande, and Puepet (2023), Sakanko and David (2018), reinvigorated the authentication of the stationarity test to ascertain the appropriate technique to be used and to minimized the spurious regression result.

Unit Root Test Result

Since data for empirical studies are from different sources, there is need for data cleaning to ascertain the stationarity, the famous Augmented Dickey Fuller was employed for this purpose. The result obtained from ADF is presented in the Table 1.

Table 1: Augmented Dickey Fuller (ADF) Unit Root test Results

Variables	ADF Statistic	Critical values	Order of Integration	Remark
LOGPOVT (%)	-2.710494	-1.952910	I[1]	Stationary
LOGACSM	-6.883339	-2.967767	I[1]	Stationary
LOGCOBC	-6.633244	-2.967767	I[1]	Stationary
LOGGOFU	-4.805775	-1.953858	1[0]	Stationary
INTR	-3.278683	-1.953858	1[0]	Stationary

Note: ***, ** and * signify statistically significant at 1%, 5% and 10%, respectively.

Source: Computation using E-view 13 (2023).

In Table 1, the null hypothesis that the variable has a unit root at level for government funding to SMEs and rate of interest at 0.05% in favours of the alternative hypothesis that the sequence didn't have a unit root was out rightly rejected. Contrary to this, the study did not reject the null hypothesis at level for poverty rate, commercial Banks credits to SMEs and Aggregate Capitalization of SMEs demonstrating that the variables are stationary after first differencing. Hence, the unit root results showed that the variables are integrated of a mixture, I(0), and I(1). This necessitated carrying out bound co-integration test to find out if the variables have a long run asymmetry relationship within the period of the study.

4.1.3 The Non-linear Auto-Regressive Distribution Lag Model (NARDL) Results

The variables included in this study which constitute the components of SMEs were determined and the study employed the technique of NARDL approach, this is the because the unit root test reveals the order of integration of I(1) and I(0) to examine the impact of government funding, commercial bank credit to SMEs, aggregate capitalization on SMEs and interest on poverty indices in Nigeria.

Table 2: ARDL Bounds Co-Integration Test result

Null hypothesis: No levels relationship						
	Value					
F-statistic	4.465201411					
	10%		5%		1%	
Sample Size	I(0)	I(1)	I(0)	I(1)	I(0)	I(1)
30	2.334	3.515	2.794	4.148	3.976	5.691
Asymptotic	1.99	2.94	2.27	3.28	2.88	3.99

Stationary Bound of *1(I) and 1(I) respectively.

Source: Computation using E-view 13 (2023)

The Dynamics asymmetric result is given in Table 2, which indicates the F- statistics result of 4.465201411 that is far and above the higher bound at 1%, 5% and 10% degree of confidence respectively, the long-run asymmetric association is said to exist among the variable of interest, suggesting that the dependent variable have a long lane association through the independent

variables within the period of the study. However, the estimate from this method was well-thought-out and fitted to conclude that long-run and short-run asymmetric connections among the regress and regressor that are considered within the periods of study in Nigeria.

Table 3: ASYMMETRIC RELATIONSHIP RESULT OF NARDL

DF (simple tests): F(1,14).			
Degrees of freedom (joint tests): F(2,14), Chi-square(2)			
Equation:			
Variable	Statistic	Value	Probability
Long-run			
AGSMES	F-statistic	0.816100443	0.381604184
	Chi-square	0.816100443	0.366322777
CBSMES	F-statistic	0.84340165	0.373977206
	Chi-square	0.84340165	0.358425706
GFSMES	F-statistic	0.024127897	0.878777259
	Chi-square	0.024127897	0.876559927
Short-run			
AGSMES	F-statistic	0.161147257	0.694163006
	Chi-square	0.161147257	0.688102455
CBSMES	F-statistic	0.346576765	0.565435409
	Chi-square	0.346576765	0.556057367
GFSMES	F-statistic	1.503607643	0.240342792
	Chi-square	1.503607643	0.2201171
Joint Result for Long and Short-run			
AGSMES	F-statistic	0.605397321	0.559542306
	Chi-square	1.210794641	0.545857503
CBSMES	F-statistic	0.476243137	0.63081551
	Chi-square	0.952486275	0.621112448
GFSMES	F-statistic	0.970377073	0.403027057
	Chi-square	1.940754146	0.378940123

Source: Computation using E-view 13 (2023)

The table 3 above present the symmetric estimation of the data and the result revealed that symmetric relationships exist among the variable within the period of the study as indicated by the probability value which is greater than 0.05 which is

statistically insignificant in all the values of F-statistic and Chi-square. The joint effect of the result further confirmed the symmetrical relationship among the key components of SMEs.

Table: 4

Long-and Short-Run NARDL Results Coefficients) Dependent Variable (Poverty Level)

Long Run Results				
Variable *	Coefficient	Std. Error	t-Statistic	Prob.
@CUMDP(COBCSMES(-1))	0.48297	153.39458	1.8350253	0.080059
@CUMDN(COBCSMES(-1))	0.14563	153.38054	1.8395138	0.079371
@CUMDP(GOFUSMES(-1))	0.39596	153.35840	1.8348909	0.080085
@CUMDN(GOFUSMES(-1))	0.44792	153.36269	1.8351789	0.080034
@CUMDP(ACSMES(-1))	-281.46586	153.41409	-1.8346806	0.080118
@CUMDN(ACSMES(-1))	-282.12734	153.39978	-1.8391639	0.079427
C	10.640848	1.5430153	6.8961388	6.331207
Short-Run Result of NARDL				
Selected model: ARDL(1,1,1,1)				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
COINTEQ*	-0.5845947	0.038879084	-7.3199962	0.322107
@DCUMDP(COBCSMES)	-30.425342	10.25085805	-2.9680776	0.007337
@DCUMDN(COBCSMES)	-30.489125	10.24856877	-2.9749642	0.007223
@DCUMDP(GOFUSMES)	-30.365731	10.24810014	2.9630594	0.007421
@DCUMDN(GOFUSMES)	-30.557442	10.24200874	-2.9835400	0.007083
@DCUMDP(ACSMES)	30.439365	10.25095938	2.9694167	0.0073150
@DCUMDN(ACSMES)	30.484209	10.24760046	2.9747656	0.0072263
INTR	0.0044778	0.004711217	0.9503875	0.3527259

Note: ***, ** and * indicate statistically significant at 1%, 5% and 10%, respectively

Source: Computation using E-view 13 (2024).

From table 4 above, the coefficients of commercial banks credit to SMEs in the long-run in reducing poverty are positive and significant for both positive and negative components given the value of the probability of the variable which is greater than 0.05%. The influence of the components (that + and -) part of commercial banks credits to SMEs on poverty reduction given the Probability that is larger than 0.05% revealed a statistical insignificant impact, with a 1% increase in the value of commercial bank credits to SMEs, leading to 0.48% increase in poverty rate within the study periods in Nigeria. Likewise, the impact of the negative component of the variable in reducing poverty also, the coefficient of the variable uncovered positive sign and statistically impactful as well, with a % rise in the value COBC to SMEs, causing in an equivalent of 0.14% increase in poverty rate within the period of the study. It was discovered that the positive component of COBC had a bigger effect in the long-run than the negative part within the period of the study.

The long-run government funding to SMEs, that is the amount of money government set aside in financing SMEs growth to alleviate poverty in Nigeria, the positive component of it has a positive coefficient and had significance influence in reducing poverty within the period of the study in Nigeria, a 1% increase in government funding to SMEs had about 0.39% escalation in poverty rate while the negative part GOFU conveyed a positive sign and statistically significance. Implying that 1% increase in government funding to SMEs in Nigeria will bring about a 0.44% progressive in poverty rate within the period under review and the positive part impacted more in influencing poverty than the negative component.

Nevertheless, the aggregate capitalization of SMEs reveals that the positive component of aggregate capitalization on SMEs is negative and had statistically impact on poverty reduction in Nigeria. This means that a 1% escalation in the positive component of aggregate capitalization on SMEs lead to an average of -281.4%

reductions in poverty rate in Nigeria, but the result is statistically significant given the value of the probability that is greater than 0.05%. Similarly, the negative component of aggregate capitalization on SMEs also reveals a negative coefficient and significant effect in reducing poverty within the period under consideration. This means a 1% increase in the negative component of aggregate capitalization on SMEs in the long run will result to -282.1% decreases in poverty indices in Nigeria.

It was also discovered that constant parameters in the long-run is in tandem with the apriori expectation of positive sign which is 10.64084801, this is because even if government SMEs financing is been held constant, there are other vital sectors that can contribute to poverty reduction to the tune of 10.64084801 rather than SMEs Financing in Nigeria. The cointeq(-1) is the rate at which the variables return back to its original equilibrium when adjustment has been made. The ECMt-1 fulfilled the conditions that it must lies between 0 and 1 and it must also be negative and statistical impactful. The result revealed that 58% speed is adjusted back to equilibrium after the exogenous shudder in the short period in the long term annually with the study period in Nigeria.

It was unveiled that an impactful relationship among the components part of the variables in a short-term, this is also obtained for both positive and negative coefficients of commercial bank credits to SMEs given the value of the probabilities which are less than 5%. The positive effect of commercial bank credits on poverty reduction is inversely related and significant within a short while or time, with a percentage (1%) rise in commercial bank credits to SMEs, will resulting in an average of -30.42% reduction in poverty indices within a short period of time, given the value of the probability that is less than 0.05%. Correspondingly, the negative part of commercial bank on poverty reduction is impactful as well; a 1% increase in commercial bank credits, the resultant effect of -30.48% decreases in poverty level in Nigeria will be witnessed within the period under consideration. Hence, the result shown that the short-term positive coefficient of COBC to SMEs is smaller when compare with negative coefficient. Moreover, the positive and negative variations of the (government funding to SMEs + -) have a significant impression on reducing poverty within the short period of time. This means that positive part of (government Funding +) component on poverty rate, with a 1 percentage increase in government funding to SMEs, poverty fall by -30.36% and the p- value is less than 0.05, meaning that government funding is statistically significant in reducing poverty within the period under consideration. Likewise, the negative coefficient of (government funding-) component on poverty reduction reveals a significant impact, with a 1% decrease in government funding, poverty rate increases significantly within the study periods in Nigeria by the coefficient (-30.55%) and the probability value which is lesser than 0.05% and it is significant.

Moreover, the positive changes of the (aggregate capitalization on SMEs +) have a significant impact in influencing poverty indices in the short-while compare to the long run period; this means that aggregate capitalization does not reduce poverty immediately, this situation is in line with the use of capital goods which are mean to produce other goods that give satisfaction. The coefficients are contradicting the predictable coefficient sign and the probability is significantly impactful. That is the positive (aggregate capitalization to SMEs +) component on poverty reduction, implying that with a 1% increase aggregate

capitalization, poverty rate rose by 30.43%. The same way, the negative (Aggregate capitalization -) component on poverty reduction, mean that with a percentage decrease in aggregate capitalization, poverty rise by 30.48% within the study periods in Nigeria and the probability is statistically significant in the study time given the P-value.

Finally, the interest rate result revealed a positive coefficients and impact on poverty reduction as well as statistically insignificant within the period under consideration. Implying that the interest rate is positively related to poverty reduction in a short while signifying that a 1% change in the value of rate of interest, resulting to a rise of 0.004% in poverty rate in Nigeria within the study period.

5. Summary, Conclusion and Recommendations

This paper analyzed the impact of SMEs financing and Nigeria's poverty reduction. Therefore, to attain the goal of this research, an empirical data spanning from 1992 to 2023 was analyzed via the Non-linear ARDL bounds testing Model. Long run asymmetric associations was discovered among the dependent and explanatory variables in Nigeria with the used of bound testing model.

The outcome demonstrates marginal contributions of government financing to SMEs within the period under consideration in reducing poverty, this as a result of Nigerian economy over dependent on crude oil as the main sustenance while overlooking other SMEs funding in Nigeria. Nevertheless, if properly addressed, SMEs financing will perform well and pays significantly to the country's poverty reduction. The paper suggested that in order to realize inclusive progress in the economy, macroeconomic stability, and sustainable development of the Nigerian economy, government should establish SMEs Bank that is aimed at making loans available to SMEs as low as 3-4% interest rate to ameliorate the adverse financial challenges bedeviling the sector because most entrepreneurs relied on personal savings and family for funds.

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