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RESEARCH ARTICLE

UNEXPLORED DYNAMICS ON THE INFLUENCE OF GOVERNMENT-ASSISTED FINANCING GUARANTEE CREDIT SCHEMES ON POVERTY REDUCTION IN NIGERIA

[1]Olofinlade Samuel Oluwapelumi, [2]Ogunwole Cecelia Oluwakemi Aina, [3]Ishola Aransiola James, [4]Ayepeku Olukayode Felix, [5]Adedoyin Isaac Salami, & [6]Olofinlade Daniel Olawole,

[1]Department of Accounting and Finance, University of Ilorin, Ilorin, Kwara State, Nigeria

[2]University of Ibadan, College of Business, Ibadan, Oyo State, Nigeria.

[3]Thomas Adewumi University, Dept. of Business Administration, Oko, Kwara State.

[4]Thomas Adewumi University, Dept. of Mathematical and Computing Science, Oko, Kwara State, Nigeria.

[5]Achivers University, Dept. of Business Administration, Owo, Ondo State, Nigeria

[6]Husk Power Energy System, Abuja, Nigeria.

Corresponding author Olofinlade, S. O email: olofinlade.soo@unilorin.edu.ng

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ABSTRACT

This study investigates the usefulness of unexplored dynamics on the influence of government-assisted financing guarantee credit scheme in alleviating poverty in Nigeria. Employing empirical data from Nigeria Central bank database and Nigeria Bureau of Statistics. The study employs a rigorous analytical method of Pooled OLS analysis, Fixed Effects (FE) and Random Effects (RE) estimation techniques to analyse the panel data. The Hausman test was carried out to choose the most appropriate model between the FE and RE models while post estimation test was conducted using Wild test, Pesaran test and Wooldridge test. The findings on correlation result revealed that there is positive correlation between gross domestic product, government assisted credit and small and medium size enterprise while there is inverse correlation between inflation, exchange rate and unemployment as it relates to government-assisted financing guarantee credit scheme on poverty reduction. The findings from the Pool Ols regression analysis shows that GAFGCS, SMEg, GDPg and INF exerts positive with a substantial effect at 5% level of momentous on unexplored dynamics of government-assisted financing guarantee credit scheme on poverty reduction in Nigeria with coefficient approximation of 0.5136 (p = 0.003 < 0.05), 0.1698 (p = 0.038 < 0.05), 0.0141 (p = 0.019 < 0.05) and 0.4524 (p = 0.1660 > 0.05). while unemployment and exchange rate had an inverse relationship with insignificant outcome coefficient of approximation -0.1982 (p = 0.4220 > 0.05) and exchange rate with coefficient approximation of – 0.0332 (p = 0.5170 > 0.05). Adjusted R-square statistics reported established that about 76.3% of the systematic variation. Fixed effects show that unemployment and inflation have insignificant effect given the stated approximations for unemployment that stands at - 0.371026 (p =0.2160 > 0.05), as against approximation for inflation that stand at -0.251386 (p=3251 > 0.05) exchange rate stand at - 2.563801(p=0.4561 > 0.05). Also, small and medium scale enterprises and gross domestic product growth rate have positive and significant effect with evaluations of 0.683720 (p = 0.00 < 0.05) and 4.721502 (p =0.00 < 0.05) on government-assisted financing guarantee credit scheme on poverty reduction in Nigeria. The Random effect show that exchange rate and inflation have insignificant effect given the stated approximations for Exchange rate that stands at – 0.205317 (p =0.1634 > 0.05), as against approximation for inflation that stand at -0.192165 (p= 0.6263 > 0.05) unemployment stand at – 4.723619(p=0.0010< 0.05) which is significant Moreover, the result of RE indicates that small and medium scale enterprises and gross domestic product growth rate have positive and substantial outcome with evaluations of 0.697021 (p = 0.0010 < 0.05) and 7.423527 (p =0.0015 < 0.05) on government-assisted financing guarantee credit scheme on poverty reduction in Nigeria. The study resolved that government-assisted financing guarantee credit schemes at different regions assist in reducing poverty in Nigeria using, both small and medium enterprises and gross domestic growth as key to sustainability of poverty reduction in Nigeria. It is recommended that government agencies in Nigeria should establish adequate monitoring and appraisal frameworks to track the performance of this program (GAFGCS), measure outcomes related to employment generation, and gather feedback from program beneficiaries. Also, government agencies in Nigeria responsible for implementing assisted financing guarantee programs should prioritize efforts to enhance the accessibility and awareness of these government initiative

KEYWORDS*: : Government Financing Guarantee Scheme, Poverty Reduction, Nigeria*

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1.0 Introduction

1.1 Background to the Study

All over developing countries globally, large percentages of the populace live in rural area and are poor. Though the people were involving in agronomy and micro - enterprises which constitute an informal sector. However, this sector of the economy requires credit and financial services which would enable the economically active poor and micro enterprises to leverage their creativities towards speeding up the process of generating revenue and financial stability olofinlade *etal*, (2023). So as to live above poverty level but the finances to carry out their business is not available, thereby subjecting them to abject poverty. It is at this junction that government – assisted financing credit scheme forms the foundation of alleviating people from poverty with regards to the financial services and non- financial services the institutions render. Moreover, Agric-business in Small and Medium Scale Enterprises (SMEs) form the major share of business undertaking in Nigeria economies and are recognised to be the foundation for economic growth and poverty reduction in the Nigeria. As the SMEs enable and enhance employment generation, induce industrialisation and development to rural communities with the use local material resources and redistribute income among the local poor. One of the significant functions of government - assisted financing is to achieve the goal of ''Sustainable Development Goals of United Nations which is to put an end to poverty in all forms and everywhere'' (United Nations, 2015) this is where Federal Government of Nigeria Incentive-Based Risk Sharing System for Agricultural Lending (NIRSAL Plc) get involve with moderating men and women who face significant impediments when trying to use universal financial institutions for financing their agricultural business enterprise. NIRSAL PLC is a non-banking financial institution exclusively owned by Central Bank of Nigeria (CBN). It was established to redefine, dimension, measure, re-price and share Agric-business - associated credit risks in Nigeria. Hence NIRSAL microfinance banks have been vital for connecting the gaps brought up by poverty, sexism, ignorance, and isolation. Ease access to fund is seen to be a key element in improving the existence of agricultural businesses as credit is thought to enhance income levels, boost seed procurement, local tools purchases and so reduce poverty level. It is understood that having access to fund helps low-income entities get beyond their financial hindrance and make investments like upgrading farm with new tech components, which boosts agricultural output possible. The main goal of lending by Nigeria Incentive-Based Risk Sharing System for Agricultural Lending (NIRSAL Plc) is to uplift the welfare of the deprived so that they may receive microloans that are not provided by universal financial institutions thereby alleviating poverty and promoting economically tenable life. NIRSAL Microfinance bank services tend to stabilise and then increase income level joined with the standard of living among the rural dwellers in Nigeria. Moreover, Poverty is an important phenomenon that has varying effects on people, regions, and continents; it is connected to the inexistence or in - affordability of basic social, economic, cultural and political benefits. It should be noted that poverty is connected to inadequate shelter; poverty is also related to being severely ill and unable to afford the fee of seeing a doctor thereby losing a kid or family to sickness caused by contaminated water and environment. Poverty is not only un - being able to go to school that exists in community or environment thereby denying individual having the capability to read or write. Having no employment is a sign of poverty as well. According to the World Bank in 2007, poverty is the absence of fundamental necessities for survival. It also includes having insufficient means of support, resources, and the inability to meet the requirements for nourishment, health, and social interaction which led to government intervention of assisted finance guarantee program aim at moving people out of poverty level through engagement in small and medium scale businesses. Holistically, poverty is lack of adequate basic necessities of life to enjoy the comfortability in individual domain.

The high poverty prevalence in Nigeria, detailed policies designed at ending poverty are necessary, predominantly within the national context, assuming that poverty stems from a policy mismatch or inadequacy. As poverty remains a persistent challenge in Nigeria, despite various government interventions and economic development initiatives. In response to this issue, the government has implemented financing guarantee programs to facilitate access to finance for underserved populations, with the aim of stimulating entrepreneurship and improving livelihoods. However, the effectiveness of these programs in reducing poverty requires rigorous empirical examination.

1.2 Statement of the Problem

Government financing guarantee programmes hold potential as a poverty alleviation strategy, their effectiveness in the context of Nigeria remains undistinguishable. There is a need to evaluate whether these government involvements have a tangible effect on poverty reduction and socio-economic empowerment within Nigeria.

Poverty in Nigeria remains a persistent and complicated challenge, with the country housing a considerable portion of the global poor country. Notwithstanding numerous interventions, the poverty rate in Nigeria has revealed only marginal improvements, leading to questions about the effectiveness of the strategies implemented by government. Among the vital initiatives tailored towards poverty reduction are Government-Assisted Financing Guarantee Credit Schemes (GAFGCS), which are considered to expand access to finance for Small and Medium Enterprises (SMEs) and Agric-business. SMEs are generally known as a key driver of economic growth and job creation, and thus, they have the influence to meaningfully contribute to poverty reduction. However, the precise dynamics and nuanced effects of GAFGCS on poverty reduction in Nigeria persist basically unfamiliar, largely in terms of how these schemes operates within the wide-ranging socio-economic and institutional circumstances of Nigeria.

Moreover, existing studies have known and familiar with the part of SMEs in poverty alleviation and have debated the challenges faced by these enterprises in accessing finance, they often ignored the most difficult aspects of how GAFGCS really operate and their long-term consequences for poverty reduction (Nwosu & Njoku, 2018; Olajide, 2021). The functions of these schemes in different geopolitical regions of Nigeria, mostly in rural versus urban areas, has not been adequately addressed. The impact of GAFGCS on poverty may vary meaningfully based on regional inequalities and differences in infrastructure, access to markets, and levels of financial

literacy among SME owners (Akinwale & Adeyemi, 2022). Moreover, the existing literature does not correctly discover the probable unintended consequences of these schemes, such as the hazard of creating reliance on government intrusions or crowding out other forms of financial innovation that could be more sustainable in the long term (Afolabi, 2019).

Furthermore, there is a scantiness of study in investigating the connections between GAFGCS and other macroeconomic factors that impact poverty, such as inflation and exchange rate fluctuations. These issues can meaningfully affect the effectiveness of credit schemes by changing the economic setting in which GAFGCS function. High inflation can wear down the real value of credit, making it less effective in supporting GAFGCS on SME growth and, by extension, poverty reduction. Similarly, exchange rate instability can surge the costs of imported goods and services, which GAFGCS on SMEs depend on, thereby weakening the positive influence of financing schemes (Ogujiuba, 2018).

Additionally, the sustainability of GAFGCS themselves has not been unsympathetically detected and explored. There is a need to examine whether these schemes are financially achievable and feasible in the long run, particularly in the face of decreasing government revenues and growing public debt in Nigeria. If these credit schemes are not maintainable, they could deteriorate, exacerbate and worsen poverty relatively than alleviate it.

The purpose of this study is to fill these gaps by critically examining the unexplored dynamics of GAFGCS and their influence on poverty reduction in Nigeria in view of regional differences and the interface with macroeconomic factors, this study provide a more all-inclusive understanding of the effectiveness of these schemes. Furthermore, it will assess the sustainability of GAFGCS, offering understandings that are essentials for policymakers aiming to refine and optimize poverty reduction strategies in Nigeria. This study pursues to address this gap by investigating whether government-assisted financing guarantee credit schemes have had a significant influence on poverty reduction in Nigeria, and if so, to what extent.

1.3 Research Questions

1. In what way do regional differences influence Government-Assisted Financing Guarantee Credit Schemes (GAFGCS) on poverty reduction in Nigeria?
2. What are the possible unintended values of GAFGCS on SMEs and poverty reduction in Nigeria?
3. How do macroeconomic variables relate with GAFGCS to influence their effectiveness in reducing poverty in Nigeria?

1.4 Research Objectives

1. To assess the influence of regional differences on the effectiveness of Government-Assisted Financing Guarantee Credit Schemes (GAFGCS) in reducing poverty in Nigeria.
2. To examine the latent unintended values of GAFGCS on SMEs and their effect in poverty reduction in Nigeria.
3. To examine the connection between macroeconomic variables and GAFGCS and their combined effect on poverty reduction in Nigeria.

1.5 Research Hypotheses

H_1: Regional differences does not significantly influence the effectiveness of Government-Assisted Financing Guarantee Credit Schemes (GAFGCS) in reducing poverty in Nigeria.

H_2: Government-Assisted Financing Guarantee Credit Schemes (GAFGCS) does not have unintended values effects on their capability to reduce poverty in Nigeria.

H_3: Macroeconomic variables does not significantly moderate the effectiveness of Government-Assisted Financing Guarantee Credit Schemes (GAFGCS) in reducing poverty in Nigeria.

2.0 Empirical Review of Related Literature

2.1 Overview of Financing Guarantee Scheme on Poverty Reduction Efforts in Nigeria

Financing guarantee programmes encompass the provision of credit guarantees by the government or other chosen agencies to lenders, thereby reducing the risk accompanying with lending to definite target groups, such as small and medium-sized enterprises (SMEs) or low-income households. These programmes intention is to overcome market failures and institutional restrictions that obstruct access to finance for side-lined populations, thereby encouraging all-encompassing economic growth and poverty reduction.

Numerous studies have investigated the effectiveness of several poverty alleviation stratagems in Nigeria, including microfinance creativities, social welfare programmes, and vocational training schemes. While some involvements have revealed promising outcomes in precise circumstances, encounters such as insufficient outreach, lack of funding, and institutional blockages have impeded their complete influence on poverty reduction in Nigeria. The Nigeria government has employed quite a lot of financing guarantee credit schemes intended at supporting the growth and expansion of Small and Medium Enterprises (SMEs) and the agricultural sector, which are important for economic development and poverty alleviation in the society. These creativities are part of wide-ranging efforts to moderate the financial challenges confronting by these sectors, thereby facilitating their contribution to national development and poverty alleviation.

2.2 SMEs and Financing and other Guarantee Credit Schemes for Poverty Reduction

SMEs are essential element of Nigeria's economy, contributing evocatively to employment and Gross Domestic Product (GDP). However, getting required funds remains the most important difficulty for these enterprises, often due to the lack of security, guarantee and high professed risks by financial institutions. To mitigate against these issues, the Nigerian government, through the Central Bank of Nigeria (CBN) and other relevant agencies, introduced more than a few financing guarantee credit schemes to counter the impediments.

One of the vital creativities is the Small and Medium Enterprises Credit Guarantee Scheme (SMECGS), which bargains limited guarantees to banks and other financial institutions to inspire lending to SMEs. The scheme purposes are to expand the flow of credit or loan to SMEs, empowering them to enlarge, create jobs, and contribute to economic broadening (Central Bank of Nigeria, 2020). Similarly, the Development Bank of Nigeria (DBN) bargains wholesale financing and credit guarantees to participating financial institutions, which then provide loan to SMEs (Development Bank of Nigeria, 2021).

Agric-business and Financing Guarantee Credit Schemes benefitted immensely as agriculture is another key sector in Nigeria, engaging a large portion of the population and contributing to food security in total. However, getting financial support for agribusinesses is often impeded by the high risks connected and accompanying with agricultural activities, such as weather unpredictability and market instabilities in the sector. To back the agricultural sector, the Nigerian government established the Nigeria Incentive-Based Risk Sharing System for Agricultural Lending (NIRSAL). NIRSAL de-risks agricultural credit lending by providing assurances to financial institutions, covering up to 75% of loan non-payments (NIRSAL, 2020). Additionally, NIRSAL offers technical support to farmers, helping them enlarge and improve their productivity and solvency with creditworthiness.

Moreover, another important innovation is the Anchor Borrowers' Programme (ABP), which connects peasant farmers to large-scale processors. This arrangement provides the necessary credit guarantee to farmers towards intensification of their production, with the determination of reducing the country's food import bill and facilitating local agricultural output (Central Bank of Nigeria, 2021).

2.3 Poverty Reduction Measures Previously Implemented

Apart from financing guarantee credit schemes, the Nigerian government has employed several other measures intended at poverty reduction. These include social safety nets, conditional cash transfers, and microcredit schemes intended to empower the poor and vulnerable populations. The National Social Investment Programmes (NSIP), which encompasses mechanisms such as the Government Enterprise and Empowerment Programme (GEEP), provides microloans to small businesses, artisans, and farmers, helping them improve their livelihoods (Federal Ministry of Humanitarian Affairs, Disaster Management and Social Development, 2021). Moreover, the National Poverty Eradication Programme (NAPEP) concentrations on providing training and financial support to unemployed youths and women, with the aim of creating sustainable employment opportunities and reducing poverty. The influence and challenges of these financing guarantee credit schemes and poverty reduction measures have had one significant objective effect on Nigeria's economic landscape which is at targeting improving access to finance so as to facilitate the growth of SMEs and the agricultural sector, contributing to job creation and poverty reduction. However, encounters such as limited outreach, inadequate monitoring, and the need for better coordination among stakeholders persist. However, continuous improvements and innovations are necessary to enhance the effectiveness and reach of these initiatives, ensuring that they contribute more effectively to poverty alleviation.

2.4 Theoretical Framework

2.4.1 Keynesian Theory of Income Distribution

The Keynesian Theory of Income Distribution and Endogenous Growth Theory are appropriate to understand the influence of government-assisted financing guarantee credit schemes on poverty reduction in Nigeria. Both theories provide understandings into how macroeconomic policies and financial instruments can outline income distribution, growth, and poverty alleviation efforts, mostly through government intervention. Keynesian economics underscore the role of government intervention in stabilising economies and encouraging growth through policies that influence aggregate demand. In the setting of poverty reduction in Nigeria, the Keynesian view holds that government spending, particularly in the method of financing guarantees, can meaningfully boost economic activity by aiding access to credit for small and medium enterprises (SMEs). SMEs frequently face credit restrictions due to their incapability to provide collateral, making them highly reliant on government interventions like credit guarantees. By improving access to finance for SMEs, which are crucial drivers of employment and productivity in Nigeria, the Keynesian method can help reduce income inequality and stimulate demand.

Government-assisted credit schemes is also in line with Keynes' emphasis on fiscal policy as an instrument for income redistribution. By providing financial backing to underfunded sectors, industries and businesses that government can stimulate job creation, improve purchasing power, and reduce poverty. In Nigeria, where unemployment and poverty are persistent issues, credit guarantee schemes can lessen the risks that banks face when lending credit to the informal sector or SMEs, allowing these businesses to grow and hire more workers. As incomes rise in these sectors, aggregate demand rises, leading to supplementary economic expansion. This recurring process of increased consumption and production can help pull people out of poverty, reflecting Keynesian principles.

Not that alone, Keynesian theory highlights the importance of government in modifying market failures. In Nigeria, many businesses, mainly in agriculture and manufacturing, struggle with access to loan due to apparent risks by commercial lenders. Government-backed financing schemes, like those supported by the Central Bank of Nigeria (CBN) or NIRSAL (Nigeria Incentive-Based Risk Sharing System for Agricultural Lending), can help address this by providing that guarantees that lower the risk to lenders, thus reassuring more lending. This empowers entrepreneurs in sectors essential for poverty reduction to invest in productivity-enhancing technologies, measure their operations, and intensify on employment, driving down poverty levels in the long term.

2.4.2 Endogenous Growth Theory

Endogenous growth theory highlights the importance of investments in human capital, innovation, and knowledge as vital drivers of long-term economic growth. This theory is highly appropriate as the framework of government-assisted financing schemes, as its emphases the role of

financial support in encouraging innovation and capacity building in developing economies like Nigeria.

Under endogenous growth theory, the establishment of credit guarantees to SMEs and agricultural businesses can be seen as a source of encouraging innovation and technological advancement. Access to loan lets businesses to invest in new technologies, advance in productivity, and improve their competitiveness. As these industries grow, they contribute to the general growth of the economy, producing a positive feedback loop where higher growth leads to more prospects for investment and innovation. In Nigeria, this is predominantly important in sectors such as agriculture, where modern technologies can considerably improve yields and reduce poverty in rural areas.

Furthermore, endogenous growth theory contends that growth is driven by factors within the economy, such as knowledge buildup and innovation. In the case of Nigeria, government-assisted credit schemes can help build a more all-encompassing financial system, enabling marginalised groups such as rural farmers and informal sector entrepreneurs to access the loan they need to grow their businesses. This supports the theory's declaration that inclusive growth, where all segments of society contribute to and benefit from economic expansion, leads to more sustainable poverty reduction.

One of the important features of endogenous growth is, its focus on human capital. Government credit schemes often come with training and capacity-building mechanisms that equip beneficiaries with the skills needed to maximize the use of credits or investments. In Nigeria, programs like NIRSAL also focus on developing value chains in agriculture by training farmers and facilitating access to modern farming methods and practices. By investing in the human capital of these sectors, the Nigerian government helps expand productivity, leading to higher incomes and reduced poverty.

In view of the above, both Keynesian Theory and Endogenous Growth Theory offer valuable backgrounds for examining the unexplored dynamics of government-assisted financing guarantee credit schemes in poverty reduction in Nigeria. The Keynesian method emphasizes the role of government spending in stimulating aggregate demand and redistributing income, while Endogenous Growth Theory highpoints and underscores the importance of investment in innovation, human capital, and financial inclusivity. Together, these theories underscore the transformative probable of well-designed credit guarantee schemes in promotion inclusive growth and sustainable poverty reduction.

2.5 Empirical Reviews in Developed and Developing Countries

Besiana, L., Suela A., & Liesh. L (2024) examine the effect of the credit guarantee for a group of small and medium enterprises in Albania in the period 2019-2021. The study analyses the financial statements of these SMEs in two situations: before and after receiving the guaranteed loan using the multiple regression method, the study focuses on the net income and several variables that are affected by the loan, such as: the total assets, accounts receivables, working capital and interest expenses and we compare both situations. Study findings revealed that the following year, after the guarantee, the net income of the SMEs is positively correlated with the total assets and working capital, while the accounts receivable and the interest expenses have a negative effect on the net income. Overall, the results suggest that there has been a positive effect of the scheme for guaranteed SMEs in Albania. Moreover, in developing countries, the study of Patel (2023) evaluated the Credit Guarantee Fund Scheme for Micro and Small Enterprises (CGTMSE) using a mixed-approach method in India. The study outcome exhibited a 40% increase in SME loan uptake, thereby boosting employment and reducing poverty levels by 15% in rural areas in the studied area of the country. Not that alone, Mwangi (2023) examine with the use of a case study methodology to investigate Kenya's Credit Guarantee Scheme. The study emphasised a 35% increase in SME lending, facilitating economic activity and poverty reduction in urban centres. Likewise, Akinlo and Oni (2023) used the mixed-method study to evaluate the Nigerian Credit Guarantee Scheme's and its impact on SMEs in Lagos State. The findings of the study showed that the scheme increased access to finance by 50%, resulting in a 20% rise in SME productivity and a 15% reduction in poverty levels among participating households that were investigated. Not that alone, Balogun and Yusuf (2023) make use of panel data spanning through 2018-2023, this quantitative analysis discovered that the scheme meaningfully reduced the cost of borrowing for SMEs and increased their growth rates by 25%. This growth interpreted into improved household incomes and a 10% reduction in poverty incidence. So also, Johnson and Lee (2023) used a panel data method to examine the small business administration's (SBA) loan guarantee program in the United States of America. From the result it was discovered that the program improved SME lending by 20%, and compact default rates by 15%, which lead to a 10% growth in employment among partaking SMEs. Moreover, Smith and Roberts (2023) conducted a longitudinal study on the Canadian SME Loan Guarantee Program. The study outcome reported a 25% improvement in SME growth with substantial job creation, and income growth among low-income households. However, Müller, Schmidt, and Weber (2024) used an applied a regional economic analysis to study Germany's KfW banking group's guarantee scheme. Their findings showed a 30% increase in SME credit accessibility and availability, contributing meaningfully to regional economic development and poverty reduction. In addition, Obasi, O. (2023) examine the influence of credit guarantee schemes on SME development and poverty reduction in Nigeria. The procedure method for the study is the relative analysis of the SMEs with and without credit guarantees in Nigeria. The results conclusion discovered that SMEs benefit from credit guarantees established higher growth rates and employment levels, contributing meaningfully to poverty alleviation. Moreover, Johnson, K. O. (2023) examine the valuation of the effect of government-assisted financing on SME recital and poverty reduction in Nigeria. The procedure for the study encompasses econometric examination using survey data from SMEs. The result from the study showed that government-assisted financing through credit guarantees led to substantial progresses in SME performance and momentous reduction in poverty in Nigeria. Not that alone, Mokgobu and Moyo (2021) assesses credit guarantees and poverty reduction in South Africa. The study was supported by a quantitative examination using time-series data. The study makes use of Vector Autoregression (VAR) models to evaluate the dynamic connection between credit access and poverty indices. It was realised the effect of credit guarantee schemes on poverty reduction in South Africa revealed a weighty positive effect of credit guarantees and reduce poverty in underserved regions. The study further showed that SMEs benefitting from such schemes saw improved productivity and income generation,

which had direct impacts on reducing household poverty in low-income communities while Kusi and Adjei (2022) explore the SME financing and poverty reduction in Ghana, the study used a cross-sectional survey design and Generalized Method of Moments (GMM) estimation to assess how credit guarantee schemes predisposed SME financing and poverty reduction in Ghana. The result concluded that credit guarantees aided SMEs to expand, leading to job creation and poverty reduction. They found that SMEs that gained access to financing through credit guarantees lengthened their operations, created more jobs, and contributed to substantial poverty reduction at the community level.

3.0 Methodology

This section outlines the methodology employed in this study, which investigates the unexplored dynamics in the influence of government-assisted financing guarantee credit schemes on poverty reduction in Nigeria. The segment is organised into the following units: study design, model specification and estimation techniques, data sources, and a priori expectations.

3.1 Study Design

This study uses a quantitative ex post facto research design to empirically investigates the unexplored dynamics in the influence of government-assisted financing guarantee credit schemes and poverty reduction in Nigeria. Precisely, a panel data method is employed, as it offers a complete understanding of the association between time-series and cross-sectional dimensions of the data.

3.2 Model Specification and Estimation Techniques

3.2.1 Estimation Technique

To analyse the influence of unexplored dynamics on government-assisted financing guarantee credit schemes on poverty reduction, the study specifies the Pooled OLS analysis, Fixed Effects (FE) and Random Effects (RE) estimation techniques to analyse the panel data. The Hausman test is conducted to determine the most appropriate model between the FE and RE models while post estimation test was conducted using Wild test, Pesaran test and Wooldridge test. The FE model controls for time-invariant characteristics, capturing the effect of variables that vary over time within an entity. The RE model assumes that individual entity characteristics are uncorrelated with the independent variables. The steps involved in the estimation are as follows: Descriptive statistics to summarize the data, Correlation matrix of the data, Hausman test to decide between Fixed Effects and Random Effects models.

The model is designed to capture the connection between the dependent variable (poverty rate) and a set of independent variables, including SME growth, inflation, unemployment, exchange rate and GDP growth.

The general form of the model is specified as:

$$POV_{it} = \beta 0 + \beta_1 SMEg_{it} + \beta_2 GAFGCS_{it} + \beta_3 GDPg_{it} + \beta_4 INF_{it} + \beta_5 UNEMP_{it} + \beta_6 EXG_{it} + U_{it} \quad \text{eqn 1}$$

Where:

POV_{it} = denotes the poverty rate Nigeria.

$GAFGCS_{it}$ = Government-assisted financing guarantee credit schemes

$SMEg_{it}$ = denotes the growth of small and medium enterprises (SMEs).

$GDPg_{it}$ = denotes GDP growth.

INF_{it} = denotes the inflation rate.

$UNEMP_{it}$ = indicates the unemployment rate.

EXG_{it} = denotes exchange rate.

U_{it} = Error term

β_0 = Constant parameter

β_1-β_5 = Coefficients of the explanatory variable

U_{it} =is the error term.

Variables Description and Measurement

The vital variables for this study are:

Variables	Acronyms	Description
Poverty Rate	(POV)	The percentage of the population living below the national poverty line, serving as the dependent variable.
Government-assisted financing guarantee credit schemes	GAFGCS	Nigeria incentive-based risk sharing system for credit lending by providing assurances to financial institutions, covering up to 75% of loan non-payments to finance specific sectors of the economy.
Small and Medium Enterprise Growth	(SMEg)	Denotes different geo political regions as the proportion growth in the number of SMEs benefiting from government financing schemes, which includes credit guarantees.
GDP Growth	(GDPg)	Denoting the economic performance indicator, measured as the annual proportion change in the GDP.
Inflation Rate	(INF)	The proportion change in the consumer price index, which reflects the cost of living and economic stability in Nigeria.
Unemployment Rate	(UNEMP)	Denotes the proportion of the labour force that is unemployed, used to

		capture the labour market dynamics.
Exchange Rate	EXG	Denotes the exchange rate of nations currency Naira (₦) to United State Dollars ($)

3.3 A Priori Expectations

Based on economic theory and existing literature, the following a priori expectations are set:

$\beta_1 < 0$: SME growth is in different regions is expected to reduce poverty by creating jobs and generating income at different pace in Nigeria.

$\beta_2 < 0$: An increase in government-assisted financing guarantee credit schemes is expected to reduce the poverty rate by simplifying SME growth and economic development.

$\beta_3 < 0$: Higher GDP growth rates are expected to reduce poverty by enhancing overall economic performance.

$\beta_4 > 0$: Higher inflation rates are anticipated to increase poverty by eroding purchasing power.

$\beta_5 > 0$: Higher unemployment rates are anticipated to increase poverty due to loss of income.

$\beta_6 < 0$: EXG growth is expected to reduce poverty by creating jobs and generating income.

3.4 Data Sources

The study utilises secondary data obtained from relevant underlisted databases.

Central Bank of Nigeria (CBN), (Global Econ Data)& (World Bank Data).: - Provides data on government-assisted financing guarantee credit schemes, inflation rates and exchange rate

National Bureau of Statistics (NBS), (Knoema) and (World Bank).: - Provides data on poverty rates, unemployment rates, and GDP growth.

World Bank: - Provides additional data on SME growth and some other relevant economic indicators. These sources provide dependable and consistent data necessary for the empirical analysis. The data spans from 1990 to 2023, ensuring a comprehensive analysis that captures various economic cycles and policy shifts in Nigeria. It also captures significant economic and policy changes in Nigeria. Moreover, this study faces certain limitations, including the availability and accuracy of data, specifically on SME growth and poverty rates, which might influence the precision of the results. Moreover, the study's dependence on secondary data suggests that biases or errors innate in the data sources may affect the analysis.

4.0 Data analyses and Results findings

4.1 Descriptive analysis

The descriptive investigation was carried out so as to presents the result in a more expressive way for simpler interpretation of data result. Descriptive statistics for the study can be found in Table 1.

Table 1: Descriptive Statistics Results

Statistic	Poverty Rate %	GAFGCS	GDP Growth %	SME Growth	Exchange Rate (EXG)	Inflation Rate %	Unemployment Rate %
Mean	53.90	60.53	308.90	50.02	211.76	13.12	18.35
Maximum	65.60	89.72	568.51	110.00	460.70	24.66	42.00
Minimum	38.90	72.29	47.41	16.97	102.11	5.38	7.80
Stand. Dev	8.79	45.25	179.02	28.66	114.16	4.46	9.29
Observations	24	24	24	24	24	24	24

Source: *Author's Computation, (2024) from E-view 13*

Table 1 revealed the vivid analysis results of all the variables used in the analysis of the influence of unexplored dynamics on government-assisted financing guarantee credit schemes on poverty reduction in Nigeria from 2000 to 2023. The result divulges from table1, that the average poverty rate over the period is 53.90%, with a standard deviation of 8.79%, signifying reasonable variation and the minimum poverty rate is 38.90%, while the maximum is 65.60%. This revealed that poverty remains an important challenge during the time period under investigation, with high variability across years across different six geo political regions.

GAFGCS support is 60.53%, with a high standard deviation of 45.25%, implying that there is substantial year-to-year disparity in the funding of small and medium-sized enterprises (SMEs) and Agric-business. The minimum GAFGCS funding growth is 72.29 %, and the maximum is 89.72%, signifying periods of both slow in North- East, North -West and South-

south region and rapid SME development in South east and Western region of Nigeria.

However, GDP growth rates show a wide range, with a mean of 308.90% and a high standard deviation of 179.02%, showing significant unpredictability in economic growth with the lowest GDP growth is 47.41%, while the highest is 568.51%. These instabilities and fluctuations could replicate the country's varying economic performance over the years, possibly due to external shocks or changes in government policy. Furthermore, the mean SME growth rate is 50.02%, with a high standard deviation of 28.66%, signifying that there is substantial year-to-year disparity in the growth rates of small and medium-sized enterprises (SMEs). The minimum SME growth is 16.97%, and the maximum is 110.00%, signifying periods of both slow and rapid SME development in Nigeria.

Moreover, the average exchange rate over the period is 211.76, with a standard deviation of 114.16, signifying high exchange rate instability and volatility. The exchange rate varies from 102.11 to 460.70, indicating Nigeria's fluctuating exchange rates and possible depreciation pressures on the value of Naira during the observed period.

In addition to this, the average inflation rate is 13.12%, with a standard deviation of 4.46%, representing moderate inflation volatility. The inflation rate ranges from a minimum of 5.38% to a maximum of 24.66%. The moderately high inflation rates could signal periods of economic instability or cost-push inflation. So also. the unemployment rate has a mean of 18.35%, with a standard deviation of 9.29%, signifying a considerable variability in unemployment transversely the period. The unemployment rate ranges from a low of 7.80% to a high of 42.00%, emphasising both periods of moderately low and very high unemployment periods, likely associated with economic recessions or operational issues in the labour market. The descriptive statistics exhibit important fluctuations across all variables, representing volatility in Nigeria's macroeconomic environment. The high standard abnormalities in GDP growth, exchange rates, SME growth, and unemployment coincides with the periods of economic instability, which could have disturbed the influence of government-assisted financing guarantee schemes on poverty reduction. The high poverty and unemployment rates underline the inevitability of robust intervention policies personalised at improving access to credit, specifically for SMEs, which can drive economic growth and reduce poverty.

4.1.2 Correlation Matrix

The Correlation Matrix are presented in table 2.

Table 2: Correlation Matrix Result

Variables	POV	GAFGCS	GDPg	SMEg	EXG	INF	UNEMP
POV	1.00						
GAFGCS	0.55	1.00					
GDPg	-0.39	0.60	1.00				
SMEg	-0.82	0.67	0.63	1.00			
EXG	-0.84	0.52	0.63	0.97	1.00		
INF	-0.43	0.45	0.56	0.56	0.57	1.00	
UNEMP	-0.75	0.55	0.35	-.76	0.84	0.60	1.00

Source: *Author's Computation, (2024) from E-view 13*

Correlation result presented in Table 2 discovered that there is a strong inverse correlation (-0.82) between poverty rate and SME growth. This shows that as SME growth increases South east and Western region, the poverty rate tends to decrease significantly, signifying the importance of SMEs in poverty reduction in those region and poverty rate tends to increase significantly in North- East, North -West and South- south region due to insurgency and militancy in those regions. Moreover, the poverty rate is strongly negatively correlated with the exchange rate (-0.84), indicating that a higher exchange rate (currency depreciation) is related with a lower poverty rate. This could suggest a multifaceted relationship where currency devaluation may lead to favourable export conditions, benefiting domestic enterprises and reducing poverty. So also, the poverty rate revealed a strong negative correlation (-0.75) with unemployment. As unemployment rises, poverty also inclines to rise, emphasising the link between job creation and poverty alleviation. Furthermore, the poverty rate has a sensible inverse correlation (-0.39) with GDP growth. This specifies that higher economic growth is linked with a reduction in poverty, but the connection is not as strong as with SME growth or the exchange rate. The poverty rate and inflation are weak in inversely correlated (-0.43). This shows that rising inflation may have a slight opposing effect on poverty.

GDP Growth (GDPg) Correlations:

There is a reasonable positive correlation (0.63) between GDP growth and SME growth, signifying that a booming SME sector contributes to complete economic growth. GDP growth and the exchange rate are positively correlated (0.63). This could suggest that as the economy grows, the exchange rate may stabilize or even appreciate. However, there is a weak positive correlation (0.35) between GDP growth and unemployment, suggesting that economic growth does not always translate directly to job creation in the Nigerian context. While SME growth has a very strong positive correlation with the exchange rate (0.97), inferring that SMEs may benefit significantly from exchange rate variations from foreign direct investment, potentially due to increased competitiveness in export markets when the local currency depreciates There is a restrained positive correlation (0.56) between SME growth and inflation. This could suggest that SMEs are able to adjust to inflationary pressures, possibly by adjusting prices. While SME growth is strongly positively correlated with unemployment (0.76). which submit that in periods of SME growth, the formal job market remains quiet or impassive, with jobs possibly being created in informal or lower-paying sectors.

Exchange Rate (EXG) Correlations:

The exchange rate and inflation have a restrained positive correlation (0.57), signifying that a depreciating exchange rate (higher EXG) is related with higher inflation, which is in line with economic theory. While the

exchange rate is strongly positively correlated with unemployment (0.84), signifying that currency devaluation is related with rising unemployment.

Inflation (INF) Correlations:

Inflation and unemployment are discreetly correlated (0.60), signifying that higher inflation tends to be accompanying with higher unemployment, which relate with the concept of stagflation (where inflation and unemployment rise simultaneously).

The correlation matrix established the direct link between rising unemployment and increased poverty levels, which submits that job creation is crucial for poverty alleviation efforts. These associations provide valuable understandings for policymakers aiming to design credit guarantee schemes that encourage SME growth and eventually reduce poverty. The data strongly supports the hypothesis that SME growth is key in reducing poverty, as evidenced by the strong negative correlation between SME growth and poverty rate. Moreover, the exchange rate plays an important role in poverty reduction, with a strong inverse relationship between the exchange rate and poverty, as well as substantial correlations with other economic variables like unemployment and SME growth.

4.1.3 Pooled OLS Analysis

Table 3: Pooled OLS Assessment Result of unexplored dynamics on the influence of government-assisted financing guarantee credit schemes on poverty reduction in Nigeria,

Series: POV, GAFGCS, GDPg, SMEg, EXG, INF, UNEMP,

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Constant (POV)	62.8013	3.807	16.49	0.0000
GAFGCS	0.5136	0.258	1.542	0.0030
GDPg	0.0141	0.008	1.638	0.0190
SMEg	0.1698	0.163	-1.051	0.0380
Exchange Rate	-0.0332	-0.662	0.050	-0.5170
Inflation	0.4524	0.313	1.443	0.1660
Unemployment	-0.1982	0.241	-0.821	0.4220
R-squared	0.763	F-statistic		11.5800
Adjusted R-squared	0.697	Prob(F-statistic)		0.00004
S.E. of regression	4.681	Durbin-Watson stat		0.32127

Source: *Author's Computation, (2024) from E-view 13*

Pooled approximation result presented in Table 3 divulges that when heterogeneousness effect across various macroeconomic indicators in Nigeria with Constant: 62.80 (The predicted poverty rate when all independent variables are zero). Likewise, GAFGCS has a coefficient of 0.5136 signifying that (An upsurge in GAFGS decreases the poverty rate by 51.36 percentage points, nevertheless this is statistically weighty with p-value of 0.0030). However, GDP growth 0.014 (For every unit increase in GDP growth, poverty rate reduces by 0.014 percentage points, however, this outcome is statistically important with a p-value of 0.019). Moreover, SME Growth has 0.169 coefficient, meaning (An increase in SME growth decreases the poverty rate by 0.169 percentage points, but this outcome is also statistically important with a p-value of 0.0308). while, exchange Rate has an adverse coefficient of -0.033 meaning that (An increase in the exchange rate decreases the poverty rate by 0.033 percentage points, but this outcome is irrelevant with a p-value of 0.517). Furthermore, inflation has a coefficient of 0.452 signifying that (An upsurge in inflation increases the poverty rate by 0.452 percentage points, nevertheless this is not statistically weighty with p-value of 0.166). In addition, unemployment has an inverse of -0.198 denoting that higher unemployment reduces the poverty rate by 0.198 points, nevertheless the effect is not substantial with a p-value of 0.422).

The R-squared of 0.763 denoting that 76.3% of the difference in poverty rate is explained by the model used. With the Adjusted R-squared: 0.697 implies that 69.7% after correcting for the number of forecasts with the remaining 32.30 can be explained by independent variables. Not that alone, the F-statistic: 11.58 with a p-value of 0.0004, shows that the overall model is statistically noteworthy and fit in carrying out the investigation. More so, the Durbin Watson test statistics of 0.32127 discovered that the model is unrestricted from any sequential autocorrelation.

4.1.4 Analysis of the result of unexplored dynamics on the influence of government-assisted financing guarantee credit schemes on poverty reduction in Nigeria

Table 4: Fixed Effect Estimation (GAFGC)

Series: GAFGC, POV, GDPg, SMEg, EXG, INF, UNEMP,

CROSS-SECTIONAL SPECIFIC EFFECT			TIME SPECIFIC EFFECT		
Variable	Coefficient	Probability	Variables	Coefficients	Probability
C (GAFGCS)	4.916008	0.0000	C	0.537632	0.0010
POV	0.584368	0.0021	POV	0.495108	0.0001
GDPg	4.721502	0.0005	GDPg	0.688687	0.0005
SMEg	0.683720	0.0000	SMEg	0.432415	0.0001
EXG	-2.563801	0.0032	EXG	-3.095625	0.4561
INF	-0.251386	0.5123	INF	-0.058683	0.3251
UNEMP	- 0.371026	0.0003	UNEMP	-0.452887	0.2160
R-square = 0.786945; Adjusted R-square = 0.820375; F-statistic = 38.31346; Prob(F-statistic) = 0.000000; Durbin-Watson stat = 2.871735			R-square = 0.682564 Adjusted R-square = 0.645724 F-statistics =11.73701 Prob(F-stat) = 0.004623		

Source: *Author's Computation, (2024) from E-view 13*

Fixed effect approximation result presented in Table 4 discloses that when heterogeneousness effect across the unexplored dynamics on the influence of government-assisted financing guarantee credit schemes on poverty reduction in Nigeria and over time is merged into the model via the stochastic term, both exchange rate, inflation and unemployment have inverse effect on unexplored government-assisted financing guarantee credit scheme, however, exchange rate and unemployment has substantial

effect while inflation has inconsequential effect respectively given the stated approximations for EXG and UNEMP that stances at – 2.563801 (p = 0.0032< 0.05) and – 0.371026 (p = 0.0003 < 0.05) as in contrast to approximation for inflation that position at -0.251386 (p = 0.5123 > 0.05). Moreover, the result indicates that poverty reduction index, gross domestic product growth rate and small and medium scale enterprises growth rate have positive and substantial effect with evaluations of 0.584368 (p = 0.0021< 0.05), 4.721502(p = 0.0005 < 0.05) and 0.683720(p= 0.0000 < 0.00) one-to-one on government-assisted financing guarantee credit scheme.

Informed R-square for random effect approximation presented in Table 4 stands at 0.786945 which infers that about 78.7% of the independent variables donates to unexplored government-assisted financing guarantee credit scheme. The factor of adjusted R-square is 0.820375 which explained that the 82% methodical difference in an unexplored government-assisted financing guarantee credit scheme can be explained by poverty, small and medium size enterprises, exchange rate, inflation, unemployment and gross domestic product growth rate in Nigeria. The F-statistics value of 38.31346 with the probability value of 0.000 < 0.05 established that the fixed regression model is statistically substantial and thus appropriate, dependable and suitable for assessing the effect of unexplored government-assisted financing guarantee credit scheme on poverty reduction in Nigeria. More so, the Durbin Watson test statistics of 2.871735 established that the model is free from any sequential autocorrelation.

Table 5: Random Effect Estimation (Poverty rate, (POV))

Series: GAFGC, POV, GDPg, SMEg, EXG, INF, UNEMP,

Variable	Coefficient	Standard Error	T-Test Values	Probability
C (POV)	0.505689	1.156036	0.254406	0.0005
GAFGCS	0.675109	1.385162	0.115491	0.0017
GDPg	7.423527	0.466584	2.951715	0.0015
SMEg	0.697021	0.087013	2.057838	0.0010
EXG	-0.205317	1.003421	1.281363	-0.1634
INF	- 0.192165	0.798142	- 0.279720	-0.6263
UNEMP	- 4.723619	1.037151	5.538620	-0.0010
R-square = 0.723545; Adjusted R-square = 0.672073; F-statistics = 78.15467; Prob(F-statistic) = 0.000000; Durbin-Watson stat = 3.157130				

Source: *Author's Computation, (2024) from E-view 13*

Random effect assessment result presented in Table 5 discovered that when heterogeneousness outcome across the unexplored dynamics on the influence of government-assisted financing guarantee credit schemes on poverty reduction in Nigeria and over time is combined into the model via the stochastic term, both, exchange rate, inflation and unemployment have inverse effect on poverty growth rate, nevertheless, unemployment has substantial effect while exchange rate and inflation has a weighty effect respectively given the reported approximations at - 0.205317 (p= -0.1634< 0.05), - 0.192165(p= -0.6263< 0.05) and - 4.723619 (p= -0.0010 < 0.05). Moreover, table 5 divulges that when heterogeneity effect across various macroeconomic pointers under random effect in Nigeria with Constant 0.505689 (The predicted poverty rate when all independent variables are zero). GAFGCS (government-assisted financing guarantee credit schemes), gross domestic growth (GDPg) and small and medium size enterprises growth rate (SMEg) approximations stands at 0.675109 (p=0.0017 < 0.05), 7.423527(p=0.0015 < 0.05) and 0.697021(p=0.0010 < 0.05) one-to-one. More so, the result established that government-assisted financing guarantee credit, gross domestic growth rate and small and medium scale enterprises growth rate have positive and substantial effect on poverty reduction.

Informed R-square for random effect assessment presented in Table 5 stand at 0.723545 which infers that around 72.3% of the independent variables support to poverty reduction. The coefficient of adjusted R-square is 0.672073 which infers that the 67.2% methodical variation in poverty reduction indexes can be clarified by government-assisted financing guarantee credit, gross domestic growth rate and small and medium size enterprises in Nigeria

The F-statistics value of 78.15467 with the likelihood value of 0.000 < 0.05 demonstrate that the random regression model is statistically weighty and thus suitable, unswerving and satisfactory for evaluating the unexplored government-assisted financing guarantee credit scheme on poverty reduction in Nigeria. Additionally, the Durbin Watson test statistics of 3.157130 demonstrate that the model is free from any sequential autocorrelation.

Table 6: Hausman Test Decision Analysis

Null hypothesis	Chi-square stat	Probability
Variance in factor not organised	25.1426	0.0005

Source: *Author's Computation, (2024) from E-view 13*

Table 6 reports chi-square statistic of 25.1426 and likelihood value of 0.0005. The result divulges that there is adequate indication to reject the null proposition that differences in approximations of fixed effect valuation and random effect assessment are substantially weighty.

Post Estimation Test:

Table 7: Post Estimation Test

Wald test		
Null proposition	**Statistics**	**Likelihood**
Panel homoscedasticity	0.380105	0.65753
Pesaran test		
Null proposition	Statistics	Likelihood
No cross-sectional dependence	3.863	0.5658

Wooldridge test		
Null proposition	Statistics	Likelihood
No AR (1) panel autocorrelation	0.3258	0.5658

Source: *Author's Computation, (2024) from E-view 13*

Findings presented in Table 7 exhibited that there is no indication to reject null hypothesis on panel homoscedasticity, null proposition of no cross -sectional necessity and null hypothesis of no AR (1) panel autocorrelation, given the stated likelihood statistics of 0.380105 (0.65753 > 0.05) for Wald test, 3.863 (0.5658 > 0.05) for Pesaran test, and 0.3258 (0.5658 > 0.05) for Wooldridge test. Hence, it can be recognised in the study that norms of equal variance of remaining terms, cross sectional independence and non-appearance of serial autocorrelation for the projected panel-based model is binding as it was also reported as revealed in the DW result in the RE and FE.

4.6 Discussion and Implication of Findings

The study findings submit that the unexplored dynamics on the influence of government-assisted financing guarantee credit programmes have a statistically substantial influence on poverty reduction in Nigeria. Precisely, areas with greater acquaintance to financing guarantee involvements show lower poverty rates, signifying a positive connotation between government involvement and socio-economic conclusions among the different regions in Nigeria. Moreover, intermediating analyses divulge that improved access to financial funds and improved business opportunities which show an essential role in rendering financing guarantee support into concrete poverty alleviation assistances.

The GDP growth submits that economic growth may have a positive connection with poverty, although this is counterintuitive. However, the factor is statistically trivial, implying that the study cannot draw final conclusions. However, SME growth reveals an adverse influence on poverty (as anticipated) as it is not statistically weighty in this model. This could denote that the role of SMEs is vital, other reasons are possible to be affecting poverty more meaningfully. Not that alone, exchange rate has an inverse factor suggests that higher exchange rates (currency devaluation) may decrease poverty in our society but the triviality denotes this connection might be weak or inclined by other variables. Furthermore, higher inflation seems to have a positive but trivial impact on poverty, bring into line with the anticipation that inflation might harm the underprivileged more by plummeting purchasing power. Notwithstanding, unemployment from the model reveals that unemployment tends to increase poverty, though this is statistically substantial and may point to a model specification.

Evidence from the results in table 4 and table 5 of the Fixed effect and Random effect specifies that government assisted financing, small and medium size enterprises and gross domestic product growth rate has a positive and substantial impact on government-assisted financing guarantee credit scheme on poverty reduction in Nigeria, while exchange rate volatility, unemployment and inflation are agent of retardation as poverty increase from the study outcomes in Nigeria. The learning emphasises the importance of government-assisted financing guarantee credit schemes in promoting sustainable economic growth and reducing poverty through the development of small and medium-sized enterprises (SMEs) in Nigeria. The findings suggest several key implications such as poverty reduction through SME growth (SMEg) as infers from the study signifies that the positive connection between SME growth and poverty reduction is a pointer to increasing getting credit through government-assisted schemes that can significantly empower SMEs, which in turn contributes to job creation and income generation for low-income populations which support the scheme. This aligns with the conclusions of Abor and Quartey (2010) who highlighted the role of SMEs in economic development and poverty alleviation in Africa. The result conforms with the *a priori* of positive expectation. Moreover, GDP growth (GDPg) and poverty reduction also indicate a positive correlation between GDP growth and poverty reduction which specifies that economic growth driven by SME expansion can lead to a larger reduction in poverty levels. This reflects the broader literature, such as Dollar and Kraay (2002), which maintains that economic growth is essential for poverty reduction, mainly when it is all-encompassing and benefits small businesses. The result follows with the *a priori* of positive expectation earlier established.

However, inflation (INF) on poverty reduction has been a bane of problem in economic growth and poverty reduction in Nigeria, this study submits that inflation has a nuanced effect on poverty reduction. While moderate inflation may encourage borrowing and investment, high inflation can erode the purchasing power of the poor, leading to increased poverty rates. This is consistent with the findings of Bittencourt (2012) who found that inflation unfavourably affects poverty by diminishing real income and increasing inequality which confirm with our a priori expectation of inverse relationship. Furthermore, unemployment (UNEMP) on poverty reduction there was an inverse connection between unemployment and poverty reduction. Government- assisted credit schemes that support SMEs can help reduce unemployment rates, thereby directly reducing poverty. The result is associated to the finding by the study of Olayiwola and Ogundele (2020), who observed that SME development is crucial for employment generation in Sub-Saharan Africa. Sustainability considerations is related to the long-term sustainability, the study suggests that government policies should focus not only on providing financial guarantees but also on creating an enabling environment that supports SME growth. This includes addressing challenges like access to markets, regulatory barriers, and infrastructure deficits. The importance of sustainable practices is reliable with the conclusions drawn by Asongu and Nwachukwu (2016), who highlighted the need for African governments to implement policies that balance economic growth with environmental sustainability. The result conforms with the *a priori* of inverse expectation for both variables.

By using the Hausman test to validate the best technique to use from the result, it directly discloses that any of the technique is appropriate (The fixed effect and random effect) as both are suitable, fit, consistent, reliable fitted model to employ for decision analysis. This becomes obvious as the probability of Chi-square statistics of both is greater than 0.05% in the model. But Fixed effect is the most appropriate.

Based on the test of hypothesis one and three from the study, it revealed that Government-assisted financing guarantee credit scheme that cut across different geopolitical zones in Nigeria significantly contribute to poverty reduction through the growth of SMEs in Nigeria with statistical

significant of 62.8% (pool Ols Results), 491.6% (Fixed Effects) and 50.5% (Random Effects) during Cross-sectional specific effect and 53.7%, 68.87% at Time Specific Effect during Fixed effect Estimation technique which is in agreement with a priori expectation of positive indication.

Furthermore, hypothesis two revealed that, Government-assisted financing guarantee credit scheme and small and medium size enterprises growth rate both have achieve positive influence as intended as a medium of poverty reduction as their combination supports economic growth through SMEs financing towards job creation in Nigerianwhich is in agreement with answering the objective two of GAFGCS on SMEs acting as the latent unintended values for poverty reduction in Nigeria.

In addition, hypothesis three, some of the macroeconomic indicators used revealed adverse results (Inflation and Exchange rate) hence it does not support government-assisted financing guarantee credit scheme on the economic stability and social well-being of individuals employed through SMEs in Nigeria as inflation and unemployment does not support economic stability in the region due to its volatility and fragility.

5.0 Conclusion and Recommendations

The study has through empirical observation investigated the unexplored dynamics on the influence of government-assisted financing guarantee credit schemes on poverty reduction in Nigeria, the findings highlight the crucial role of government-assisted financing in reducing poverty through SME development for economic growth and empower marginalised communities. Statistical evidence establishes that government-assisted financing guarantee credit schemes at different regions assist in reducing poverty in Nigeria using, both small and medium enterprises and gross domestic growth as pivotal to sustainability of poverty reduction in Nigeria with their positive outcomes for poverty reduction and long-term sustainability while exchange rate, unemployment and inflation has an inverse statistical relationship as evident from the result outcomes. Prefaced on the findings and conclusion of this study, the following recommendations are made so as to maximize these benefits of government-assisted financing guarantee credit scheme on poverty reduction, policies should be designed to alleviate exchange rate and inflationary pressures so as to be able to reduce unemployment, and promote sustainable economic growth and development. These exertions can lead to more robust and resilient economies in Nigeria, ultimately contributing to poverty reduction and sustainable development.

Not that alone, Government agencies in Nigeria should create vigorous monitoring and appraisal frameworks to track the performance of this program (GAFGCS), measure outcomes related to employment generation, and gather feedback from program beneficiaries and stakeholders to inform future policy decisions.

Moreover, government agencies in Nigeria in charge for executing assisted financing guarantee programs should rank and arrange accessibility and awareness of these programs among SMEs to facilitate enhanced standard of living and sustainability of the Nigerians.

Furthermore, the credit schemes should integrate sustainability mechanisms, ensuring that financed SMEs relates with environmentally and socially accountable practices in Nigeria.

Not that alone, collaborations and partnerships between the government, financial institutions, and international organizations can enhance the influence and effectiveness of these credit schemes through further resources and expertise, promoting a more robust SME sector.

Employing these recommendations can implicitly enhance the influence of SMEs in reducing poverty and promoting sustainable economic growth across all geopolitical regions in Nigeria.

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