

GOVERNMENT POVERTY REDUCTION DRIVERS AND PER CAPITA INCOME: INSIGHT AND IMPLICATIONS FOR BUSINESS EXPANSION IN NIGERIA FROM 2015 TO 2023

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ABSTRACT

This study empirically examined government poverty reduction drivers impact on per capita income by unraveling associated insights and implications of such impact for business expansion in Nigeria. Sourcing secondary data from the statistical bulletin of the Central Bank of Nigeria and employing econometric approach of Ordinary Least Squares (OLS) and Johansen Co-integration methods for analysis, the result revealed that agricultural guarantee credit scheme fund positively impacted per capita income – thereby impacting positively on business expansion. However, commercial banks loans to small scale enterprises and credit to private sector as metrics for government poverty reduction drivers have negative impact on per capita income and affected business expansion negatively. Consequently, it was concluded that government poverty reduction drivers have mixed impacts on per capita income and affect business expansion in two different dimensions. It was recommended that the government should give more attention to Commercial Banks Loans to Small Scale Enterprises (CBLSE) so as to be able to increase per capita income by 21%.

Keywords: Government Drivers, Poverty, Per Capita Income, Business Expansion, OLS

JEL Classification: E51, E58, G28, H81, Q14

INTRODUCTION

The tenets, convictions, and tactics that direct a business in expanding its activities, gaining market share, and raising its total worth are all part of the growth philosophy. It includes a variety of factors, such as controlling risks, seeing development possibilities, and coordinating expansion initiatives with the organization's goals and core values (Besnik & Krasniqi, 2012). It is a thorough strategy that strikes a balance between financial caution, customer focus, strategic planning, growth objectives, and ethical issues. To achieve sustainable and responsible growth, a comprehensive approach that incorporates many business factors is necessary (Olawale, 2013). Economic expansion, denoting a phase of increased economic output in the economy, is

referred to as an upward slope of the business cycle (Poi & Uzomba).

For Penicny (2009), business growth includes opening new branches, increasing partnership, introducing new goods or services, scaling up promotion efforts, and increasing staff strength. All of these possibilities for corporate growth are reliant on people's purchasing power, which establishes how much consumers will pay for business goods. Businesses can modify their plans to optimize growth and profitability by having a better understanding of the correlation between per capita income and business expansion. This is due to the fact that increased per capita income fosters the perception of higher financial viability, which in turn attracts investors and lenders and is therefore essential for business expansion.

Evidently, (Penicny, 2009) contends that greater levels of per capita income generally offer favorable conditions for the expansion of businesses by augmenting consumer purchasing power, market size, investment potential, and economic stability; alleviate the obstacles of market saturation and increased operating expenses; and by harnessing the dynamics of per capita income, enterprises can arrive at well-informed decisions for sustainable growth and enduring success (Sasmal & Sasmal, 2016).

Government initiatives to reduce poverty are essential in raising per capita income because they offer direct cash assistance, expand access to healthcare and education, build infrastructure, and foster economic growth. These kinds of initiatives not only help people escape poverty but also promote stability and general economic growth (enterprise expansion). For Muhammad, Zulham, Sapha and Saputra (2019), it is amazing that government drivers to reduce poverty can be started, implemented successfully, and improved over time. These drivers create a positive feedback loop where lower levels of poverty and higher per capita income feed off each other, resulting in sustained economic growth, the development of businesses, and higher living standards for all.

Central Bank of Nigeria (CBN) (2022) reports that the number of government initiatives aimed at reducing poverty has increased. These initiatives include the provision of direct financial support, such as cash transfers or social security benefits, as well as the granting of credit facilities with lower interest rates. According to Smith, Ugwu and Okoye (2017), government initiatives to reduce poverty enhance income distribution, promote economic mobility, boost access to public utilities, act as a financial safety net, provide subsidies for agriculture, and let people launch or grow their own businesses. The Nigerian government has continuously put in place a number of anti-poverty initiatives designed to address the various socioeconomic problems that various societal groups experience in an effort to reduce poverty through the growth of businesses. The interventions aim to alleviate poverty and improve general living conditions by focusing on upgrading agricultural activities,

developing infrastructural facilities for the rural dwellers, empowering womenfolk, creating jobs, and providing right of use to financial services.

In addition, National Social Investment Programmes (NSIP) from 2015 to 2023 was aimed at addressing poverty issues. Worthy of mention are N-Power program, Government Enterprise and Empowerment Program (GEEP), National Home-Grown School Feeding Program (NHGSFP), and Conditional-Cash-Transfer (CCT) program. The combined goals of these initiatives are to enhance corporate operations and decrease poverty. However, Nigeria has not had a pleasant experience with corporate expansion. As an illustration, consider the GDP's (the economy's) meager contribution from business, which increased by 0.11% (year-over-year) in actual standings in the 4th quarter of 2020 - the first positive quarterly increase from the previous 3rd quarters (National Bureau of Statistics, 2022).

It makes sense that a lack of market demand for their goods or services - which suggests low per capita income and limited purchasing power - is the reason why over 40% of small firms fail (Heaslip, 2024). Business growth in 2023 dropped from 3.1% in 2022 to 2.7% in 2023, which is still higher than the previous 10-year average of 2.3%. This is another alarming data. This bodes ill for the future growth of the business overall revenue, which is predicted to expand at an annual rate of 11.31% by 2027, to reach a projected market volume of US\$5.13 million (Heaslip, 2024). Because of this, even in cases where government initiatives to reduce poverty are clearly visible, we find it concerning that businesses may choose to expand in the face of persistently low per capita income. This therefore seeks to establish, in empirical terms, government poverty reduction drivers' impact on per capita income in Nigeria.

Objectives of the Study

The broad objective of this study is to establish, in empirical terms, government poverty reduction drivers' impact on per capita income in Nigeria, the specific objectives include:

- i. To investigate how various Agricultural Credit Guarantee Scheme Fund (ACGSF) affect Per Capita Income (PECTI) in Nigeria;
- ii. To Assess the Relationship Between Commercial Banks Loans to Small Scale Enterprises (CBLSE) and Per Capita Income (PECTI) in Nigeria;
- iii. To Evaluate the influence of Credit to Private Sector (CRPST) on Per Capita Income (PECTI) in Nigeria.

LITERATURE REVIEW AND THEORETICAL FOUNDATION

Government Poverty Reduction Drivers

This includes government initiatives like cash transfer programs and subsidies can directly affect household incomes, thereby increasing disposable income and purchasing power, which stimulates market demand for local businesses (World Bank, 2021). Policies that enhance access to financial services for the poor (e.g., microfinance, mobile banking) allow small-scale businesses to grow, as individuals gain access to credit to start or expand businesses (Adebayo et al., 2022). Investment in infrastructure such as roads, electricity, and ICT increases business accessibility and reduces operational costs, creating a favorable environment for business expansion (Ugochukwu & Eze, 2023). Government-driven programs focused on education and vocational training enhance human capital, increasing productivity and income levels, which positively impact both poverty reduction and business expansion (Ogundele & Okon, 2022). The government's use of tax reliefs and subsidies for businesses operating in underdeveloped or poverty-stricken areas creates incentives for business growth, helping boost employment and economic activities in these regions (Kemi & Musa, 2020).

Per Capita Income

Per capita income reflects the average income level of a population, a key measure of economic well-being. An increase in per capita income suggests higher disposable income for consumption, which businesses can leverage for expansion (Osakwe & John, 2022). As households experience higher incomes, consumption patterns shift toward higher-value goods and services, leading to expanded demand across various sectors (Nwafor, 2023). Improved incomes allow for greater savings and investments, facilitating business growth through increased capital available for business expansion (Adebayo et al., 2022).

Business Expansion

This entails an increased per capita income leads to greater consumer demand, allowing businesses to scale operations or enter new markets (Ugochukwu & Eze, 2023). With government programs improving access to finance and skills development, entrepreneurship rates increase, fueling local and small-scale business growth, especially in underserved markets (Kemi & Musa, 2020). Specific sectors such as retail, agriculture, and services grow as per capita income increases, providing businesses with opportunities to innovate and expand (Ogundele & Okon, 2022).

Theoretical Framework

This study reviews three theories; Neoclassical Growth Theory, Endogenous Growth Theory and Keynesian Economic Theory, however, it is underpinned by Endogenous Growth Theory

Endogenous Growth Theory

This theory posits that endogenous force orientation, as opposed to exogenous ones, drives economic growth within the economy. The hypothesis is that government initiatives aimed at reducing poverty can accelerate economic growth provided that they are focused on increasing market competition and promoting

innovation in both processes and goods. According to Năstase (2010), it is an economic theory that explains how internal factors - like government initiatives to reduce poverty - rather than external forces, affect long-term economic growth. Endogenous growth theory takes into account economic factors that propel technical innovation and productivity gains, in contrast to neoclassical growth theory, which credits technological advancement to exogenous forces. The theory places a strong emphasis on the internal variables - human capital accumulation, government assistance, innovation, and technical advancement - that propel economic growth and corporate expansion.

According to Musa et al. (2016), endogenous growth theory permits growing returns to scale in specific situations, particularly when it comes to knowledge and innovation, which are closely associated with business growth. From the foregoing, it can be argued that endogenous growth theory has changed our understanding of sustained economic growth by highlighting the internal factors that propel productivity, entrepreneurship, and innovation inside an economy.

Neoclassical Growth Theory

The Neoclassical Growth Theory argues that the economic drivers of labour, capital, and technology are combined to produce a stable rate of growth in the economy. The Solow-Swan Growth Model is the most straightforward and well-liked variation of the Neoclassical Growth Model. Accordingly, different labour and capital quantities that are essential to the production process are what lead to short-term economic equilibrium (Janczac & Bares, 2010). According to the theoretical proposition, advances in technology have reasonable impact on functionality of economies. The theory presupposes that economies only grow if labour, capital and technology guarantee short-term equilibrium or temporary equilibrium.

It is further inferred from the theory that economic growth and business expansion are largely dependent on capital accumulation in an

economy and how private sector and government employ it (Barta, 2010), through the interaction between capital and labour to produce an economy's overall output (or aggregate business expansion) (Smith, Ugwu & Okoye, 2017). Thus, Scarlat, Rozell, and Scroggins (2011) contend that technology boosts labour productivity and raises overall output via improved worker efficiency. Consequently, the theory is used to gauge an economy's equilibrium and rate of growth. In the neoclassical growth model, the general production function looks like this:

$$Y = AF(K, L)$$

Where:

Y – Business expansion, income or the economy's [Gross Domestic Product \(GDP\)](#)

K – Capital (Government Supports – in form of poverty reduction drivers)

L – Amount of unskilled labour in the economy (determined by per capita income)

A – Determinant level of technology.

According to the Neoclassical Growth Model, economic growth and business expansion are largely dependent on capital accumulation in an economy and how the public and government employ it (Barta, 2010). It also asserts that an economy's overall output (or aggregate business expansion) is determined by the interaction between capital and labour. Thus, Scarlat, Rozell, and Scroggins (2011) contend that technology increases labour productivity, raising overall output via improved worker efficiency. Consequently, the neoclassical growth model's production function is used to gauge an economy's equilibrium and rate of growth. In the neoclassical growth model, the general production function looks like this:

Keynesian Economic Theory

This theory posits the important of government involvement in assisting economies come out of

recession. The theory anchors its argument on the dynamics of boom-bust cycles in the economy that are typical of free-market countries and highlights government's roles as a "counterweight" sizing the cycles. The theoretical underpinning underscores interest rates, tax rates, and social programmes as the three primary indicators that governments should keep a careful eye on, for the purpose of reducing poverty. The social programme, which includes the government's poverty reduction initiatives like those included in this study, is the most significant component of the programme.

For Bazroy, Madhavan, and Sarkar (2017) the theory suggests that governments should cut back on spending on social programs during periods of prosperity, or "boom" cycles, since these periods would not require as many social programs. The goal of social programs is to train people in skills so that an influx of trained workers can invigorate the job market. A robust labour force is assumed to support the economy during successful times, negating the need for extra investments. Governments should, however, spend more on social programs during economic recessions (also known as "bust" cycles or business retardation) in order to boost the economy, firms, and employment market by bringing in more trained labour. It is believed that as the pool of skilled labour increases, wages will climb as well, making it possible for businesses to employ additional productive workers without incurring large unbearable cost. Thus, with a robust labour force, the economy may gradually emerge from a recession.

However, this study is underpinned by Endogenous Growth Theory because Endogenous growth theory emphasizes the role of internal factors such as government policies, human capital development, and innovation in driving long-term economic growth (Musa, Abdullah, & Wahid, 2016). Since the conceptual framework focuses on government initiatives aimed at poverty reduction, this theory directly relates to how internal governmental policies can stimulate economic growth and increase per capita income. Government poverty reduction drivers, such as investments in education, infrastructure, and technology, lead to the

accumulation of human capital and stimulate innovation. These efforts promote business expansion by enhancing productivity and competitiveness, which are core elements of the endogenous growth model (Năstase, 2010).

The theory asserts that long-term growth is influenced by investments in human capital and technology, which aligns with the idea that government poverty reduction initiatives—like skill development and financial inclusion—can enhance per capita income and fuel business growth. This contrasts with exogenous theories that attribute growth to external factors beyond a nation's control. According to endogenous growth theory, when governments support innovation and entrepreneurship, businesses are likely to experience growing returns to scale. These internal factors, such as government incentives and skilled labor development, directly contribute to sustainable business expansion, making the theory highly relevant (Musa et al., 2016).

In comparison, Neoclassical Growth Theory focuses more on external factors like technological advancement being key to growth, which doesn't directly connect with the role of internal government policies in poverty reduction. Similarly, Keynesian Economic Theory emphasizes counter-cyclical fiscal policies to combat economic recessions, but it doesn't highlight long-term endogenous growth factors as strongly as the endogenous growth model does.

Empirical Literature

In a study by Nicolae, Bibu, and Claudia (2014), it is argued that expanding businesses in Romania's Western Region have business' traits as well as their best practices that inspire them to expand. As a follow up, Poi and Uzomba (2021) looked into how easy it is to do business in the five English-speaking West African countries (ESWACs) in relation to entrepreneurial determinants. It utilized secondary data from World Bank and OECD. The Small and Medium Enterprise Sale Tax (SSTR), which measures the Entrepreneurial Determinants (ED) of the regulatory system, and Domestic Credit to Private Sector (DCPS), which measures access

to financing, were the independent variables. The Ease of Doing Business Ranking (EDBR) served as the dependent variable.

The result showed that whereas SSTR has a negative and weak association with INTR and DCPS, it has a positive and weak link with EDBR. A long-term correlation between SSTR, INTR and DCPS, and EDBR was not identified, but a dynamic short-term ARDL regression shows a strong coefficient of determination, and the cross-sectional result indicated that while SSTR, INTR, and DCPS had a negative impact in Ghana, Liberia, and the Gambia, they had a favorable impact on the ease of doing business in Sierra Leone and Nigeria. Olawale (2013) reported that high education, managerial experience, relevant experience, motivation, and networking are among the characteristics of an entrepreneur that are proven to be important predictors of growth expectations.

Olawale (2013) asserted that government assistance for corporate expansion has significant socioeconomic implications. For example, in South Africa, where the government has set SMEs as a top priority to create jobs, the goal is to lower the country's high rates of poverty and unemployment, which are currently projected to be 24.7% (Statistics South Africa 2013). Furthermore, the expansion of businesses via poverty alleviation initiatives is crucial for lowering wealth disparities and enhancing South Africa's economic growth (Pahad 2008). Despite the SME sector's emphasized importance, Adeniran and Johnston (2011) point out that the failure rate of SMEs in South Africa is thought to be between 70% and 80%. This suggests that the majority of SMEs in South Africa don't expand.

As reported in Olawale (2013), Rath and Kloosterman (2000) and Bogan and Darity (2008) point out that public sector support for entrepreneurship can give people employment and income when they struggle to access the labour markets. As a result, people have the power to significantly influence both the start-up and expansion of enterprises. According to studies by Dana (2007), Gebre (2011), and Tengeh (2012), people who are entrepreneurial

create possibilities through the establishment and expansion of firms that have a significant impact on their home nations. According to Birch (2019), small businesses - particularly those with rapid growth—are the main drivers of job creation. Through an increase in per capita income, Wong (2005) and Karadeniz and Ozcam (2010), as reported in Olawale (2013), make the case that growth-oriented enterprises contribute more to economic growth than do small and new firms generally. Small businesses grow into large companies through expansion (Davidsson, 2010).

The prosperity of societies is attributed to business expansion associated with government programs aimed at reducing poverty (Bosma, 2000). Growing businesses are particularly important because they can generate money and jobs and also because they can encourage innovation (Aidis & Mickiewicz 2004; Pasanen 2006). Wiklund (2003), referenced in Olawale (2013), notes that while business expansion is the primary driver of employment creation, there are also unmistakable signs that a significant number of small business managers purposefully choose not to pursue expansion. According to Janczak and Bares (2010), the majority of businesses fail to expand for five reasons: they are unable to grow; they place a higher priority on business stability than expansion; owners only hope to make a modest living; they are unable to tap government growth aimed at reducing poverty; and they have low per capita income.

Besnik and Krasniqi (2012) contend that small businesses and entrepreneurship are the cornerstones of economic development worldwide and that, as such, every economy must prioritize business growth in its economic policy. They conducted a study on developing small firm growth model in a transitional economy using data on rapidly growing firms. This is due to the fact that, especially in transition economies, business expansion has a significant impact on employment, income, and societal changes. Delgado, Lourdes, and de Armino (2020) who empirically studied business growth strategy in relation to intellectual capital value added reported that firm-internal

characteristics, entrepreneur-specific traits, and external are like government drivers aimed at reducing poverty.

Wiklund (2003) and Olawale (2013) report that it is critical to comprehend the causes of the attitudes and behaviors associated with growth that certain small business managers display; governments place a high priority on encouraging more people to launch high-growth companies since these entrepreneurs are job creators, innovators, and skill builders (Bosma, 2000; Birdtsistle, 2010). Thus, understanding the elements that influence Nigerian entrepreneurs' growth aspirations can have an impact on reducing poverty, creating jobs, and boosting the country's economy.

As can be seen from the above, no study has empirically examined the implications of business growth in Nigeria through the impact of government poverty reduction programs on per capita income. This is evident from the review of empirical literature on the subject (Kalitanyi & Visser 2010; Tengeh, 2012; Radipere 2013; Gumede 2000; Sha, 2006; Chiliya and Roberts-Lombard 2012; Besnik, & Krasniqi, 2012; Nicolae, Bibu & Claudia, 2014; Poi & Uzomba, 2021; Olawale, 2013).

METHODOLOGY

This study used a quantitative research approach based on an ex post facto research methodology. Secondary data sourced on Per Capita Income (PECTI) in Nigeria; as a dependent variable; independent variables data were sourced on Agricultural Credit Guarantee Scheme Fund (ACGSF), Commercial Banks Loans to Small Scale Enterprises (CBLSE), and Credit to Private Sector (CRPST) from the statistical bulletin of Central Bank of Nigeria (CBN), National Bureau of Statistics (NBS) (from 2015 to 2023). The model specification follows a theoretical prescription that economic development is a function of government poverty reduction drivers; hence equation 3.1 is specified thus:

$$PCI = f(GOPRP)$$

3.1

PCI = Per Capita Income

f = A sign for the functional relationship between PCI and GOPRP

GOPRP = Government Poverty Reduction Drivers

Equation 3.1 would further expand as follows:

ACGSF, CBLSE and CRPST are the indices of government poverty reduction drivers and serve as independent variables; while PECTI is the dependent variable.

From the variables listed above, equation 3.1 would be expanded by regressing ACGSF, CBLSE and CRPST on PECTI, as specified in the functional relationship as follows:

$$PECTI = f(ACGSF, CBLSE, CRPST) \quad 3.2$$

It is clear from the assessment of some empirical literature initiatives of the public initiatives, economic growth and development and poverty. By assessing government policy impact on poverty – using GOP – f(POV), some of those studies, some studies (Ogundipe, *et al.* (2016; Egbo, *et al.* 2016; and Iheanacho, 2016) showed mixed results. Where POV represents poverty and GOP is government policies. By determining the structural equation of the aforementioned model, the current study adopted it with significant modifications and approximated it to that of Pesaran *et al.* (2001) – which is best when time series data are stationarity in different order. For the purposes of contributing to the on-going debates on the direction of government policies impact on per capita income with implications for business growth, we adopted the above model and modified it as follows:

$$PECTI_t = b_0 + b_1ACGSF_t + b_2CBLSE_t + b_3CRPST_t + \mu_t \quad 3.3$$

Where:

b_0 = Constants of the model line for equations 3.3

b_1, b_2 and b_3 = Gradients of model for ACGSF, CBLSE and CRPST in equation 3.3 respectively

The initial definitions of other variables are retained, 't' = time series drift, μ_t = disturbance term.

$$\frac{\delta PECTI}{\delta ACGSF} > 0; \frac{\delta PECTI}{\delta CBLSE} > 0; \frac{\delta PECTI}{\delta CRPST} > 0;$$

Ordinary Least Square (OLS), a popular method for estimating linear regression equation coefficients and characterizing the connection that exists between predictive variables and outcome variable, was used for analysis. The OLS method is a popular tool in econometrics for estimating a linear regression model's parameters making attempts to reduce the effect of sum of squared errors on the analysis.

RESULTS AND DISCUSSION

Table 1: Result of OLS Analysis

Outcome Variable: PECTI; Method = Least Squares; Included Time Span: 42 after adjustments				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	3.469320	0.403141	8.605716	0.0000
ACGSF	0.087207	0.031359	2.780898	0.0084
CBLSE	-0.214298	0.042513	-5.040810	0.0000
CRPST	-0.023664	0.023524	-1.005989	0.3208

R-squared = 0.873667; Adjusted R-Squares = 0.863694; log likelihood = 77.43066; F-statistics = 87.59766; Prob. (F-Statistics) = 0.0000; Durbin-Watson Stat = 1.346081

Source: Result Output, 2024.

The results of a short-run OLS test, which was carried out to determine the impact of government programs aimed at reducing poverty on per capita income in Nigeria, are shown in Table 4.1. Per capita income (PECTI) is the dependent variable in the analysis; measures of government programs to reduce poverty include the Agricultural Credit Guarantee Scheme Fund (ACGSF), Commercial Banks Loans to Small Scale Enterprises (CBLSE), and Credit to Private Sector (CRPST). The other variables are either independent or explanatory.

The result reveal that the coefficient values of ACGSF, CBLSE and CRPST are 0.087207, -0.24298 and -0.023664 respectively. This implies that a unit change in ACGSF resulted in about 0.09-unit change in PECTI – suggesting positive impact on the outcome parameter. In another sense, it could be explained to mean that one hundred (100%) change in ACGSF resulted in 8.72% increase PECTI. This is inferred from the fact that

ACGSF appeared with the right sign that conforms to the expectations of the theories. ACGSF is also confirmed to be significant at $P = 0.0084$ ($p < 0.05$) in influencing a positive change by increasing per capita income in Nigeria.

According to the report, CBLSE has a detrimental impact on PECTI as part of the government's initiatives to reduce poverty. It is reasonable to infer that a one-unit change in CBLSE caused PECTI to decrease by 0.21-units based on the coefficient value of -0.214298. In other words, PECTI decreased by twenty-one percent (21%), whereas CBLSE, which exhibits an incorrect theoretical sign and deviates from the apriori expectation, increased by 100%. Even while the likelihood value is significant at 0.0000 ($p < 0.05$), suggesting that CBLSE may have a positive effect that raises Nigeria's per capita income, this is not very striking.

Additionally, a negative coefficient value of -0.023664 for CRPST indicates that a unit rise in CRPST was associated with a 0.02 unit drop in PECTI; which put similarly suggests that a 100% increase in CRPSL could, all other things being equal, lower per capita income by roughly 2%. This is why the result appears to be in the wrong direction as initially anticipated. In addition, CRPST is not significant at 0.3208 ($p > 0.05$). When evaluating the PECTI model's goodness-of-fit, the results demonstrate that the model fits the dataset used in this analysis. The coefficient of determination has a value of 0.873667 and its adjusted counterpart has 0.863694, with a positive and high log likelihood value of 77.43066. This outcome suggests that the model was well described and specified – as the predictor parameters explained reasonably changes in the outcome variable. More significantly, it suggests that the combined effects of ACGSF, CBLSE, and CRPST are responsible for 87% of the alterations or variations observed in the PECTI. Stochastic disturbance or error term, which accounts for additional factors (qualitative and quantitative) that may impact PECTI but are not included in the model, is responsible for the remaining 13%.

The value of adjusted R-squared, 0.873667, indicates that the predictor variables contribute to its value when compared to a model with more input variables. Put otherwise, the variables have the potential to increase per capita income beyond what would be predicted by chance. This is due to the fact that the fundamental idea of discussing coefficient of determination is based on the threshold, which

states that a lower adjusted R-squared signifies that adding another predictor variables would not improve result of the model. The result of a positive autocorrelation is indicated by the Durbin-Watson (DW) statistic of 1.346081 is below 2 – which supports the requirement for an error correction mechanism. The Durban Watson statistic would always presume a value between 0 and 4, which is the basis for this conclusion. When $DW = 2$, it means that autocorrelation is absent. Positive autocorrelation is indicated by a number less than 2, and negative serial correlation is indicated by a value more than 2. The value of the F-ratio is used to assess the tenability of the first null hypothesis, which states that government poverty reduction drivers have no significant impact on per capita income in Nigeria. The same table shows that the probability of the F-Stat is 0.0000.

The regression model offers a better fit than a model with no independent variables, as indicated by the F-statistic, which is indicative of the model's high level of overall significance. Given that the f-stat p-value of 0.0000 is below the selected alpha threshold, the null hypothesis – government poverty reduction drivers have no significant impact on per capita income in Nigeria rejected. The alternative is accepted, indicating that government initiatives to reduce poverty have a major impact on Nigeria's per capita income. In support of this point, the result indicates that ACGSF contributes significantly to possible increase in per capita income as the model is statistically significant.

Table 4.2: Result of Johansen Co-integration Test

Sample Adjusted: 1982 – 2021. Included Observations: 40 after adjustment. Trend Assumption: Linear Deterministic trend. Series: PECTI, ACGSF, CBLSE and CRPST. Lags Intervals (in first differences): 1 to 1

Hypothesized: No. of CE(s)	Eigenvalue	Trace (Statistic)	Critical Value (0.05)	Prob.**
None *	0.530425	56.06342	47.85613	0.0070
At most 1	0.356579	25.82629	29.79707	0.1340
At most 2	0.123436	8.188056	15.49471	0.4455
At most 3	0.070359	2.918251	3.841466	0.0876

Trace test indicates 1 co-integrating eqn(s) at the 0.05 level

* denotes rejection of the hypothesis at the 0.05 level

**MacKinnon-Haug-Michelis (1999) p-values

Source: Result Output, 2024.

Table 4.2 presents the findings of the Johansen Co-integration test, which was applied to the second hypothesis and research question. It is also evident from the finding that, at the 0.05 alpha level, there is only one co-integrating equation. This is determined at the "None"

points, where the trace statistic (56.06342) exceeds the 47.85613) critical values of 0.05. Furthermore, at 0.0070, its probability value is less than 0.05. This finding implies that government initiatives to reduce poverty and per capita income in Nigeria have a long history of association.

Table 4.3: Result of Parsimonious Error Correction Model

Dependent Variable: D(PECTI). Method: Least Squares. Sample (adjusted): 1984 2021.				
Included observations: 38 after adjustments				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.010215	0.014864	-0.687227	0.4991
D(PECTI(-1))	-0.373685	0.225835	-1.654686	0.1122
D(PECTI(-2))	-0.110768	0.249445	-0.444060	0.6613
D(PECTI(-3))	-0.210371	0.218346	-0.963475	0.3458
D(ACGSF(-1))	0.085145	0.059343	1.434793	0.1654
D(ACGSF(-2))	0.075256	0.073724	1.020779	0.3185
D(ACGSF(-3))	0.093127	0.073417	1.268465	0.2179
D(CBLSE(-1))	0.165523	0.146149	1.132562	0.2696
D(CBLSE(-2))	-0.121829	0.120471	-1.011271	0.3229
D(CBLSE(-3))	-0.044358	0.108408	-0.409172	0.6864
D(CRPST(-1))	-0.075948	0.099455	-0.763648	0.4532
D(CRPST(-2))	0.117082	0.110055	1.063851	0.2989
D(CRPST(-3))	-0.000258	0.109988	-0.002343	0.9982
D(ECM(-1))	-0.026539	0.120000	-0.221157	0.8270
D(ECM(-2))	0.159517	0.122872	1.298241	0.2077
D(ECM(-3))	-0.020233	0.106481	-0.190016	0.8510
Statistical Features	OLS Results	ECM Result	Remarks	
R-Squared	0.873667	0.450211		
Adjusted R-Squared	0.863694	0.075255		
Log Likelihood	77.43066	81.40442	Improved	
F-Statistics	87.59766	1.201025		
Prob.(F-stat)	0.0000	0.339589		
Durbin-Watson	1.346081	2.249139	Corrected	

Source: Result Output, 2024.

The above table displays the outcomes of the parsimonious mistake Correction Model (ECM) for the PECTI equation, which is used to rectify the mistake discovered in the Ordinary Least Squares (OLS) short run result. With an improvement in the Durbin-Watson result from

1.346081 (OLS result) to 2.249139 (ECM result), the ECM result demonstrates that the problem is fixed. In this sense, the study is reliable to be used extrapolate how government initiatives to reduce poverty affect Nigeria's per capita income.

Discussion of Findings

The OLS analysis reveals that ACGSF positively impacts PECTI, contributing to an 8.72% increase in per capita income. This indicates that government agricultural programs are effective in boosting economic outcomes, aligning with theoretical expectations. In contrast, CBLSE negatively impacts PECTI, suggesting that loans provided to small-scale enterprises might not be efficiently utilized for income-generating activities, possibly due to high-interest rates or misallocation of funds. Similarly, the negative coefficient for CRPST indicates that private sector credit might not translate into productive investment, leading to reduced per capita income.

The Johansen co-integration test further shows that there is a long-run relationship between the government's poverty-reduction programs and per capita income in Nigeria. This suggests that these programs, especially ACGSF, can have a sustained positive impact on income levels over time.

According to the study, the Agricultural Credit Guarantee Scheme Fund (ACGSF) is significantly raising per capita income by 8%. This suggests that government programs of this kind can help people become less impoverished and increase their purchasing power, which in turn can help businesses grow by enabling them to buy goods and services. This suggests that through increasing production, offering financial support, upgrading infrastructure, encouraging the adoption of new technologies, and promoting sustainable practices, agricultural programs play a critical role in establishing an environment that is conducive to economic expansion.

The results suggest that there is a trend for business expansion when per capita income rises by 8% as a result of increased funding for the Agricultural Credit Guarantee Scheme Fund. This is based on the idea that having access to capital is essential for investing in operations, facilitating the adoption of cutting-edge technology, and effectively scaling up production. The positive impact of government agricultural programs like the Agricultural

Credit Guarantee Scheme Fund (ACGSF) on economic outcomes is consistent with recent studies. These programs have been found to contribute significantly to agricultural productivity and income growth, particularly in developing economies (Ogbonna & Uzonwanne, 2023; Yusuf et al., 2021).

The outcome, however, also demonstrates that loans from commercial banks to small-scale enterprises (CBLSE) have a considerable impact on Nigeria's 21% per capita income decline. This suggests that commercial bank loans are ineffective in promoting business expansion even though they are a vital source of funding for companies wishing to grow.

This is hardly surprising given the exorbitant costs associated with obtaining loans from deposit money institutions, which keep away both real and potential investors as well as small- and medium-sized business owners. This intuition directs business operations. It is also insightful to note that an over-reliance on loans can result in a high level of debt, which raises the financial burden on the business, reduces profit, strains cash flows, and makes it harder for businesses to pay loan repayments along with operating expenses. Studies have indicated that loans to small-scale enterprises (CBLSE) might not always result in positive economic outcomes due to factors such as high-interest rates, poor financial management, or inefficient allocation of funds (Ikechi & Ugochukwu, 2022; Omodara, 2020). This aligns with the finding that CBLSE negatively impacts per capita income (PECTI) in the current analysis.

By diverting the business' attention from long-term strategic planning and investment, a negative correlation between per capita income and deposit money bank loans may also have a substantial negative effect on business expansion by limiting growth and innovation. Access to credit with conditions can have a negative effect and result in debt overhang for enterprises, when a sizeable amount of revenue is spent to service debt, even though credit availability generally boosts economic growth and per capita income. This lowers disposable income and

consumption, which hinders business growth by keeping companies mired in a debt cycle.

One other implication regarding the inverse link is that loans may be allocated to speculative or unproductive endeavors rather than profitable ventures. This may result in asset bubbles and economic inefficiencies, which would ultimately lower per capita income and impede the expansion of firms due to insolvency. Relationships like this have the potential to increase household financial insecurity, which lowers the probability that people will participate in the economy and hinders the growth of businesses. Private sector credit has shown mixed results in terms of its ability to drive economic growth, with some research indicating that it may not always lead to productive investment, particularly in countries with weak financial systems (Aremu et al., 2021; Musa & Olaitan, 2020). This aligns with the negative coefficient observed for Credit to Private Sector (CRPST).

According to the results, there is a negative correlation between per capita income and credit to the private sector (CRPST), with an increase of one unit in CRPST translating into a 0.02 unit decrease in per capita income. This might not seem like much, but it has a big impact on per capita income and business growth because, in the absence of credit, businesses are unable to expand, cut operations, raise living standards, or invest in new projects. All of these things can slow down economic growth and create more economic inequality. Reduced output and economic growth follow, and per capita income declines as a result.

Credit to the private sector has a negative relationship with per capita income, which discourages business expansion by lowering job prospects. As per capita income falls, firms are unable to grow, which reflects a general decline in the standard of living. Investments in vital infrastructure, such as energy, telecommunications, and transportation, are discouraged by the negative association between per capita income and loans to the private sector. These investments are necessary for economic growth and increased per capita income. The

negative link also implies that credit to the private sector, which encourages business investment, job creation, and consumer spending, does not play a crucial role in boosting economic growth and per capita income.

The Johansen co-integration test's findings that government poverty-reduction programs can have a sustained long-term impact on income are supported by studies showing the long-term benefits of well-structured agricultural programs (Alabi & Adewunmi, 2022; Ezech & Ogundele, 2021). These findings highlight the importance of continuity in policy implementation for sustainable economic development. The improvement of model accuracy through the Error Correction Model (ECM) in the present study resonates with the need for correcting autocorrelation issues in economic models, as highlighted in recent econometric research (Ogunleye & Ojo, 2023; Adedeji & Olayinka, 2021). However, the limited significance of short-term effects suggests that long-term strategies are more impactful in driving growth.

CONCLUSION AND RECOMMENDATIONS

Following the findings of the study, it is concluded that government initiatives to reduce poverty have conflicting effects on per capita income and have two distinct effects on the growth of businesses. In order to raise per capita income by 21%, it is advised that the government focus more on Commercial Bank Loans to Small Scale Enterprises (CBLSE). To raise Nigeria's per capita income, the government needs augment its three programs aimed at reducing poverty by 87%. Based on the findings and objectives of the study, the following recommendations were made:

- i. The government should continue to support and expand programs like ACGSF to further enhance economic outcomes and alleviate poverty.
- ii. Commercial banks and policymakers should reform loan policies to make funds more accessible and ensure their effective use in productive ventures.

- iii. Efforts should be made to improve the allocation and monitoring of private sector credit to ensure it contributes to sustainable economic growth.

Suggestions for Further Studies

- i. Future research should focus on the long-term impacts of small-scale enterprise loans on income generation to identify areas for improvement.

- ii. Studies should be conducted to evaluate the sector-specific impacts of private sector credit, particularly in agriculture and manufacturing.
- iii. Further research could examine how government policies affect the accessibility and effectiveness of loans in improving income and reducing poverty.

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