

Original Research Article**Economic Growth, Income Redistribution and Poverty Reduction:
Experiences from Rural Nigeria****Abstract**

The paper examines changes in the extent of poverty in rural Nigeria from 1996 to 2004. It investigates the contributions of growth and redistribution factors to changes in poverty over this period of eight years. The analysis is based on household National Consumer Survey (NCS) of 1996 and the National Living Standard Survey (NLSS) data of 2004 all collected by the National Bureau of Statistics (NBS). Using Shapley Decomposition Approach, the study reveals that the extent of poverty in the rural sector declined slightly during the second period of study (2004). Decomposition of changes in poverty into growth and redistribution components indicates that both the growth and the redistribution component were poverty reducing but at different magnitudes indicating that the deterioration of income inequality contributed to the worsening of poverty in Nigeria.

Keywords: Growth, Redistribution, Poverty reduction, Rural Nigeria, Shapley decomposition

1. INTRODUCTION

The goal of Nigeria's economic development has been to achieve stability, material prosperity, peace and social progress. A number of internal problems have however been slowing down the attainment of these growth and development objectives. These include inadequate human development, primitive agricultural practices, weak infrastructure, uninspiring growth of the manufacturing sector, a poor policy environment and mismanagement and use of resources. Nigeria's economy has relied disproportionately on oil revenue, which made the country vulnerable to global price fluctuations. As a result, Nigeria has long aspired to develop other sectors of the economy to diversify, spread the wealth, and insulate itself from booms and busts. In fact, average growth was more than double between 1995 and 2000. However, the question we need to ask is:

What is the impact of this growth on employment and income distribution? What does this mean for future growth strategies and industrial policy? Had the country indeed made progress in its competitiveness and trade?

Poverty and income inequality are closely related and it has been argued that income inequality is a manifestation as well as a strong cause of poverty [1]. The high level of poverty in the late 1990s in Russia was attributed to the rise in income inequality rather than to decline in average income [2]. When economic growth increases, poverty rate decreases, but as income inequality increases, the incidence of poverty also increases. Because of the linkage between income inequality and poverty, reducing income inequality has become a major public policy challenge among development agencies and poverty-reduction experts. Yet, in most developing countries, discussions about poverty reduction strategies often focus almost exclusively on income growth, neglecting the potential roles of income redistribution and inequality [1].

In order to achieve reduction in poverty, income growth has to be equitably distributed. Thus, in current thinking on how best to achieve poverty reduction, both economic growth and equity have assumed a central place. A large number of studies show growth to be on average good for the incomes of the poor [3, 4, 5, 6]; and effective in reducing the poverty headcount ratio [7, 8, 9, 10, 11]; although with considerable regional variation [12]. At the same time, equity is seen to be not only of intrinsic importance but also of instrumental importance through its impact on the rate at which economic growth converts into poverty reduction. For example, the 2006 World Development Report [13]; the 2005 Human Development Report [14]; and the 2005 Report on the World Social Situation all devote the bulk of their analysis to the myriad ways in which equity matters for economic opportunities open to poor people, an emphasis which has already led some observers to speak of a ‘new equity agenda’ [15]. Evidences in the literature point to the increasing level of income inequality in developing countries including Nigeria over the last two decades [16, 17]. Poverty reduction requires economies to address inequality and economic structures - in addition to sustaining high levels of economic growth [18]. In Nigeria, the increasing level of income inequality has been a concern to policy makers for a long time. For example [19]

found the overall gini index for Nigeria to be 0.580. In sectoral sense, the study found income inequality to be higher in rural areas as compared to urban areas with 0.5278.

Variations in the level of income obtained by people in the rural areas is on the increase which could very much be linked to the growing dimensions of poverty even among the rural households, as a high level of income inequality produces an unfavourable environment for economic growth and development [20].

Thus, in the 1970s and 1980s, the pre-occupation was with the growth of the economy and income as growth was seen as a pre-requisite for improved welfare.

The government therefore introduced series of economic reform measures starting with the economic stabilization measures of 1982, Economic Emergency Measures in 1985 and Structural Adjustment Programme (SAP) in 1986. The implementation of Structural Adjustment Programme (SAP) was part of policy efforts by the government to tackle the problem of severe economic crisis which worsened the lives of many Nigerians. Components of SAP include market- determined exchange and interest rates, liberalized financial sector, trade liberalization, commercialization and privatization of a number of enterprises [21]. Other efforts of the government aimed at poverty alleviation include the establishment of specialized agencies which are as follows: Agricultural Development Programmes, (ADPs) Nigerian Agricultural Cooperative and Rural Development Bank (NACRDB), National Agricultural Insurance Scheme (NAIS), National Directorate of Employment (NDE), National Primary Health Care Agency, Peoples Bank, Urban Mass Transit, mass education through Universal Basic Education (UBE), Rural Electrification schemes (RES), Strategic Grain Reserve, National Agricultural Land Development Agency, National Directorate for Food, Roads and Rural Development (DFRRI) and National Economic Reconstruction Fund. Others are Better Life Programme, and Family Employment and Advancement Programme. In 1994, the Poverty Alleviation Programme Development Committee was established, which produced the Community Action Programme for Poverty Alleviation (CAPPA). In 1999, the Poverty Alleviation Programme (PAP) was established, with the objective of creating 200,000 jobs annually. The programme, however, failed to have any appreciable impact on poverty reduction in the country, due to “state capture” and leakages, among other reasons [21, 22]. It was replaced in 2003 by the National Poverty Eradication Programme

(NAPEP), with five main programme areas. It is observed that four of the programmes have employment components. It is estimated that since inception, NAPEP has been able to train 130,000 youths and engaged 216, 000 persons who are attached to various establishments [23]. However, like the PAP, beneficiaries are largely non-poor. Up till June 2003, there was no clear economic strategy in the country, and monetary policy was totally ineffective to check expansionary fiscal operations. Weak institutions and legal environment stymied the benefits that would have accrued from oil earnings, which had started to firm up [24]. The entire scenario however changed in 2004, with the formal announcement and presentation of the Federal Government's economic agenda, tagged the National Economic Empowerment and Development Strategy (NEEDS). It was launched along with State Economic Empowerment Development Strategy (SEEDS). NEEDS is a medium-term strategy that seeks to implement series of reforms that would lay a solid foundation for a diversified Nigerian economy by 2007. It sets specific goals in major growth indices as wealth creation, employment generation, institutional reforms and social charter. The conceptual issues on NEEDS/SEEDS are based on four goals• Poverty reduction, Wealth creation, Employment generation and Value re-orientation. The framework for actualizing the goals of NEEDS is anchored on three pillars; Empowering people and improving social delivery, Fostering private sector led growth through creating the appropriate enabling environment, and Enhancing the efficiency and effectiveness of government, by changing the way government does its work [25]. Of recent, one of the seven-point development agenda is to fight poverty and diseases. Like earlier reform packages, the strategy considers economic growth as crucial to poverty reduction. The major issues of the seven point agenda include: Power and Energy, food security, wealth creation, transport, land reforms, security and education.

The objective of this study is to estimate the contribution of growth and redistribution to rural poverty in Nigeria between 1996 and 2004. This stems from the fact that the growth being experienced in Nigeria has not led to expected reduction in the poverty level and the basic aim of the reform which is to restore long-term growth and development has not been realized.

The choice of rural sector as the main focus of this study arises from the fact that majority of Nigerians live in rural areas and development of this sector holds promise to

improve the general welfare of the country. In the rural areas, social services and infrastructure are limited or non-existent. The great majority in such areas are poor and depend on agriculture for food and income. About 90% of the country's food is produced by small scale farmers cultivating tiny plots of land who depend on rain fed rather than irrigation systems. Surveys show that across the country, 44 per cent male farmers and 72 per cent of female farmers cultivate less than one hectare per household. The poorest group eke out subsistence living but often go short of food, particularly during the pre-harvest period [26].

According to [27]; the bitter reality of the Nigerian poverty situation is that more than 40 percent of Nigerians now live in conditions of extreme poverty, spending less than ₦320 (about \$2) per capita per month. This expenditure would barely provide a quarter of the nutritional requirements for healthy living. Unequal distribution of wealth, income and productive resources, widespread poverty and sluggish economic performance became the obvious features of the Nigerian economy.

One of the main policy issues in Nigeria especially among the rural dwellers, is the distributional consequences of economic growth. This is because inequalities in Nigeria have led to growing disparity among rural dwellers. These inequalities can be attributed in part to the past defective colonial economic policy with regard to the concentration of socio-economic and other development programmes in the urban centres, where European administrators and their allies lived while the rural areas where majority of Africans lived were neglected. Thus, the developmental advantages, which the urban centers and city dwellers enjoyed in terms of education, employment opportunities and health facilities among others, set the skewed structure of development [23]. To the best of our knowledge, there is no serious study yet in Nigeria which has looked into changes in poverty over a period of time or which has studied poverty changes based on public policies especially with the use of two data-points. This study fills the gap by investigating temporal changes in poverty with focus on rural population. The analysis is based on household-level data (National Consumer Survey (NCS) and National Living Standard Survey (NLSS)) collected by National Bureau of statistics. The analysis of poverty based on these survey data may not prove any causality between government development policies and changes in poverty, but it can provide a hint on

how growth and redistribution factors have contributed to the observed changes in poverty in Nigeria.

According to [28], studies on decomposition of income inequality are desirable for both arithmetic and analytical reasons. It can shed light on the structure and dynamics of income within different socio-economic groups in the economy. Estimating the contribution of growth and income redistribution to total inequality and understanding the link between socio-economic characteristics and total inequality can also be useful to economic policy analysts and designers of poverty reduction programmes. Studies on income inequality decomposition are very scanty in Nigeria. Given the general belief that poverty is more widespread and prevalent in rural than urban areas [30], and that inequality is higher in rural than urban Nigeria [19], it becomes appropriate to conduct an in-depth analysis of rural income inequality, with the aim of identifying which should be more emphasized (whether growth or redistribution of resources) and suggesting ways of reducing rural poverty generally.

This study differs from previous studies especially in terms of methodology for poverty decomposition. Other studies like [29, 30] and in Nigeria [31, 32] and [19] did not decompose inequality into exact results as most of them generated residuals which could lead to a loss of lots of useful information. This study intends to add to the already existing body of knowledge by decomposing poverty into Growth and Redistribution components focusing on the rural sector and investigating the redistribution of income over some time period. Two different periods will be considered for the study; the first period (1996) is when there was no democratic rule in the country. It coincides with the military era when the management of oil revenue and the macro-economy was haphazard, translating into macro-economic instability and the second period (2004) is when democratic rule and redistributive policies was already in place. This is in order to see whether the various equity motivated efforts of the Nigerian government has caused any meaningful improvement in the lives of Nigerians over a period of time or otherwise as regards growth in income and redistribution of wealth most especially among the rural population.

The rest of the paper is organized as follows: Section 2 presents a brief discussion on the issues involved in measuring poverty and investigates the temporal changes in levels of poverty in the rural sector in Nigeria. Section 3 decomposes the temporal changes in poverty into components associated with growth and redistribution factors. Section 4 concludes.

2.METHODOLOGY

2.1 Sampling Procedure and Sampling Size.

The study used data collected by the National Consumer Survey of 1996 and 2003/2004 Nigeria Living Standard Survey. The National Consumer Survey of the Federal Office of Statistics (Now National Bureau of Statistics) is a nationally representative survey covering about 11,577 households. A two- stage sampling design was used while the stratification criteria were based on the state of residence and the locality (urban/rural). The survey contains detailed information on the income, expenditure and consumption of household members. The National Living Standard Survey NLSS is based on the National Integrated Survey of Household (NISH) framework. The NISH is an ongoing programme of household surveys enquiring into various aspects of households.

A two-stage stratified design was employed. The population census Enumeration Areas (EAs) constitutes the primary sampling units while the housing units were the secondary sampling units. In each state, a sample of 120 EAs were selected for the survey, while 60EAs were selected for Abuja. At the second stage, a total selection of 5 housing units from each of the selected EAs were chosen. Thus, a total of 600 households were randomly interviewed in each of the states and the FCT, summing up to 22,200 households across the country (NBS, 2005). The questionnaires were designed to obtain information from various members of the household, including husbands, wives and adult children. Topics addressed in the questionnaires include: demographic characteristics of all household members; age, sex, education, state, non-farm and off farm employment; family size, land tenure, distance from source of water, electricity supply, sources of household income etc.

2.2 ISSUES IN MEASURING POVERTY:

2.21 Foster – Greer – Thorbecke (FGT) Measures of Poverty.

One of the methods considered in the study is the popular FGT. Many earlier studies have used relative poverty lines, which are proportions (two third) of the average per capita expenditure [33, 46]. In this study, this same approach was followed using the per capita expenditure as a proxy for well being. We define the poverty line as the two thirds mean value of per capital consumption in the rural areas. This poverty line helps us in classifying the poor and non poor and then calculate the poverty indices for rural households in Nigeria. We used the Foster-Greer- Thorbecke (FGT) indices to measure

the magnitude, depth and severity of rural poverty. The p_α class of poverty according to [34] can be addressed in respect of poverty incidence, ($\alpha=0$), Depth of poverty ($\alpha=1$) and Severity of poverty ($\alpha=2$). The larger the value of α , the greater the weight given to the severity of poverty. For $\alpha=0$, FGT reduces to Head Count Ratio (H) and when $\alpha=1$, it reduces to poverty gap and if $\alpha=2$, we have poverty severity index.

The equation is given as:

$$FGT \alpha = \frac{1}{n} \sum_{i=1}^q \left(\frac{z - y_i}{z} \right)^\alpha \dots\dots\dots(1)$$

Where:

n = the total number of households

z = the poverty line

y_i =household per capita expenditure

α = a parameter which takes values 0,1, and 2.

2.2 Gini Coefficient (Measurement of income inequality)

The main measures of inequality in literature include; The Gini, Theil and Atkinson indices. This study however focused on the Gini index or coefficient. This is not only because it is the most widely used method but also because it has properties that inform policy. The Gini coefficient was used in this study to analyse inequality between different households in a population. Since [36] the coefficient has been found to be useful for this purpose. The coefficient is calculated as the ratio of the area between the Lorenz curve and the diagonal line of perfect distribution and the total area below the line. It has a value of between 0 and 1.

If the Lorenz curve is the 45° line, then the value of the Gini coefficient would be zero. In general, the closer the Lorenz curve is to the line of perfect equality, the less the inequality and the smaller the Gini coefficient. The Gini coefficient is computed as:

$$I_{gin}(Y) = \frac{2 \sum_{i=1}^n y_i}{n^2 \mu} i \left[\frac{n+1}{2} \right] y_i \dots\dots\dots(2)$$

Where n is the number of observation, μ is the mean of distribution, and y_j is the income of the j th household while i is the corresponding rank of total income and I_{gin} is the income gini.

2.3 Shapley Growth-Redistribution Decompositions

The Shapley decomposition approach proposed by [37] was used extensively in the decomposition of poverty into growth and redistribution components. The decomposition was derived from the concept introduced by [38]. The proposed framework is for decomposition analysis, whether static or dynamic, and whether it concerns poverty or inequality in the distribution of living standards. It also has the advantage of eliminating the residual component that remained unexplained in the [39] approach.

The results are then used to quantify the contribution of any number of factors to total inequality. The [40] method has been criticized on the basis that although the methodology requires the inclusion of an error term into the original income generating equation, it does not make any contribution towards overall inequality [41]. In contrast, Fields' decomposition methodology accounts for the contribution of the regression error to total inequality, but this tends to be large leaving unexplained the major proportion of inequality. Neither method accounts for the contribution of the constant term to total inequality.

In contrast to other regression-based methods, the Shapley value decomposition methodology circumvents the problem of a large residual and decomposes inequality exactly into its contributory factors [37].

Starting with the work of [39] with a fixed poverty line z written formally as:

$$p = p(L, \mu, z) \dots\dots\dots(3)$$

$$P = P(L, \mu/z) \dots\dots\dots(4)$$

The poverty level at time (t) given as μ_t is normalized average income and the Lorenz curve L_t captures redistribution as measured by Gini. The growth factor in the change of

287 poverty between period t and $t+n$ can be denoted as $G = \frac{\mu_{t+n}}{\mu_t} - 1$ and the redistribution

288 factor by

289 $D = L_{t+n} - L_t$. The issue is that of identifying the contribution of growth, G and
290 redistribution D , in the decomposition of changes in any poverty measure that is
291 additively decomposable. The aggregate change in poverty measures is given as:

$$292 \Delta P = P_{t+n} - P_t = F_{t+n}(z) - F_t(z) = P(\mu_{t+n}, L_{t+n}, z) - P(\mu_t, L_t, z) \dots \dots \dots (5)$$

293 This can be decomposed further to give:

$$294 \Delta P = P(\mu_{t+n}, L_{t+n}, z) - P(\mu_t, L_t, z) \dots \dots \dots (6).$$

295 This is an expression of the change in poverty, ΔP which was decomposed into the
296 growth (G) and redistribution (D) components given as:

$$297 G = P_{t+n} - P_t = P(\mu_{t+n}, L_t, z) - P(\mu_t, L_t, z) \dots \dots \dots (7)$$

$$298 D = P_{t+n} - P = P(\mu_{t+n}, L_{t+n}, z) - P(\mu_{t+n}, L_t, z) \dots \dots \dots (8)$$

299 As stated by [2], equation 7 expresses the marginal effect of the change in mean income
300 with redistribution held constant while equation 8 indicates the marginal effect of
301 redistribution when mean income is held constant. These two types of decomposition
302 generate a residue, such that:

303 Variation in poverty = Growth effect + Redistribution Effect + Residue which is in line
304 with [39].

305 To remove the arbitrariness of the choice of a reference period and the error term, we can
306 use the Shapley value and the two effects can be averaged and further expressed as:

$$307 G = \frac{1}{2} [P(\mu_{t+n}, L_t, z) - P(\mu_t, L_t, z)] + \frac{1}{2} [P(\mu_{t+n}, L_{t+n}, z) - P(\mu_t, L_t, z)] \dots \dots \dots (9)$$

$$308 D = \frac{1}{2} \left[P(\mu_t, L_{t+n}, z) - P(\mu_t, L_t, z) - \frac{1}{2} [P(\mu_{t+n}, L_{t+n}, z) - P(\mu_{t+n}, L_{t+n}, z)] \right] \dots \dots \dots (10)$$

309 Equation (9) and (10) are Shapley values for Growth and Redistribution components
310 respectively.

311

312 3.0 RESULTS AND DISCUSSIONS

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3.1 ESTIMATES OF POVERTY IN RURAL NIGERIA

The poverty line for 1996 was ₦43.58 (Nigerian Naira) while in 2004 it was ₦17218.35. As reported by Adigun 2012, the level of poverty in the rural area was more severe in 1996 (69.2percent) than what obtained in 2004 (65.1 percent) (G.T Adigun, Nigeria, Unpublished PhD thesis). Also gini was 0.479 percent and 0.460 percent for 1996 and 2004 respectively. The rise in poverty in the agricultural sector in 1996 is explained by the abandonment of rural agricultural policies of the SAP period. Although there was relative decline in the percentage of poverty among people in the agricultural sector in 1996, there was still a concentration of poverty in the agricultural sector. During that period fiscal deficits were high, unemployment band interest rates were also high with lending rates hovering around 21 per cent, The inflation rate was also very high standing at over 70 per cent [25]. This was traceable to continued depreciation of the naira, the price hike on petroleum products, high import rates of duties and periodic shortages of food items. In general, the economic environment prevailing in 1996 was that of structural and financial imbalances. Programmes such as better life, Family support Programme and Family Economic Advancement Programme introduced by the military government during the period achieved very little in combating poverty. The challenge for Nigeria is not to improve one sector or region at the expense of another, or to introduce policy distortions and inefficiencies in resource allocation to benefit one group, which in the past has led to increased poverty for others. The challenge is to adopt growth and social service oriented policies (i.e., public expenditure, revenue and investment – budget) that will enable all its inhabitants to improve their welfare. Again the reduction in poverty experienced in 2004 may not be unconnected with the various economic recovery measures put in place by the present civilian administration. This enhanced the per capita incomes of both the poor and non-poor households.

3.2 DECOMPOSITION OF POVERTY INTO GROWTH AND REDISTRIBUTION COMPONENTS

Since we are interested in the redistribution effect of poverty, it would be more appropriate to rely on the transfer-sensitive measure, FGT (2). For the sake of comparison however, we present in Table 1 the contributions of growth and redistribution

to changes in poverty using all the three measures. The table shows Datt and Ravallion as well as Shapley decomposition values. Using the period t_1 as reference point, the growth component is negative (-0.030) and the redistribution component also negative (-0.061). For the period t_2 as reference point, the growth component is (-0.019) while the redistribution component is (-0.049). Reference period t_1 (1996) is the period before the present civilian regime. It was the period whereby the country was just recovering from the effects of SAP and economic recession. During that time, a decline in the per capita household income and economic recession contributed to increase in poverty. This is because, in Nigeria, accompanying the rapid economic growth between 1965 and 1975 was a serious income disparity which widened substantially. This is to show that though the economy may be performing strongly, the gap between the lower income households and the upper income households is growing, which is an indication that the rapid economic growth experienced has only resulted in further concentration of national income in the hands of few proportion of the population [42, Ipinaiye A.O Nigeria, unpublished M.Sc thesis]. This national trend is also reflected at the community or city level, which makes income inequality a useful metric in understanding the state of the community. The contribution of growth to poverty was more because of concentration of wealth in the hands of few elites in the country. This has led to increasing inequalities in inter-personal incomes and a widening gap between urban and rural incomes, especially since 1986. It has therefore become evident that the policy environment required for rapid economic growth cannot be provided by policies which result in further concentration of national income in the hands of few proportion of the population.

For the period t_2 as reference point, redistribution contributes less to poverty. This could be as a result of a more egalitarian redistribution of resources. During this period, the new civilian leadership has shown commitment to improving the lives of the people through serious economic and social reforms. Also the government realized that development should be participatory with government spearheading all activities in partnership with the private sector, the civil society and the individual citizens. Under a peaceful and conducive environment, it is expected that every economic agent will have the incentive to concentrate on productive activities and will be able to create and generate wealth thereby contributing to societal well being. Reform programmes put in

place during the period seem to have a close association with the rise in growth effects, indicating that both economic growth and its ability to reduce poverty are achieved in the reform process. It is assumed that as economic reforms are likely to bring in higher growth, the growth or mean effect is expected to go up in period t_2 . Though the extent of fall in the incidence of rural poverty in the 2000s has been only marginally higher than that in the 1990s as noted above, the assumption of a higher growth or mean effect in period 2 may still be valid. In addition to this, the inequality effect might also have fallen in period t_2 compared to period t_1 if economic reforms aimed at generating pro-poor growth, that is, employment generation occurring in the process of economic growth has occurred [43]. Further, as the coefficient of variation of the change in the incidence of rural poverty rose in the 2000s over the 1990s it can be assumed that the economic reforms executed at different levels across states have generated different mean and/or inequality. A strategy of growth with employment generation would help the poor benefit from economic reforms, enhancing not only the growth effect but also making inequality and population shift effects more beneficial to poverty reduction [44]. The present civilian administration which was put in place in 1999 came with the introduction of several economic reform measures and this resulted in the improvement of living standards of the people. For example, with the expansion in the number of private mobile telephone operators, many youths who would have been unemployed are engaged in the sale of recharge cards and operation of telephone kiosks. This means that many were taken from the category who earn less than US\$ 1 a day and this may explain part of the decline in measured poverty incidence from its level of 69.2 percent in 1996 to 65.1 percent in 2004. There has also been a significant increase in the number of private and public educational institutions. The number of primary schools (public and private) increased from 49,306 in 2001 to 59,174 in 2003. The number of secondary schools (public and private) rose from 6,292 in 2001 to 10,964 in 2004 and the number of university equivalent from 51 in 2001 to 63 in 2004 [34]. All these developments provide more employment opportunities for teaching and non-teaching occupations.

Shapley decomposition values for the two periods are -0.025 and -0.056 for growth and redistribution components respectively. Both values carry negative signs implying that there is a decline in poverty as a result of effects of growth and

redistributive policies in the country within the two periods. Redistribution component is however more poverty reducing than growth. This is as a result of the economic reforms policies of the civilian regime which results in a more even distribution of resources. It may be added here that economic reforms have a direct influence on productivity as infrastructure supply, concentration of activities, and other factors constituting the external economies of scale are likely to grow with reforms. Hence with differences in the level of reforms pursued across the country, productivity and growth differentials are likely to grow, indicating the tendency of divergence rather than convergence. From the result in Table 1, the growth in income during this period of economic reform would have reduced poverty much more than what is observed had the rising inequality not offset some of the potential positive effects of growth on poverty. This goes in line with the slightly modified “dynamic version” of the Kuznets hypothesis, which postulates that inequality increases as the rate of growth of income goes up. It means that under faster growth rates, the poor will receive proportionally lower benefits of growth than the rich. As recorded by [43] the degree of poverty depends on two factors: average income and income inequality. An increase in average income reduces poverty and an increase in inequality increases it. Economic growth increases average income (or consumption), but at the same time it may be accompanied by increasing or decreasing inequality. The increase (decrease) in inequality implies that the proportional benefits received by the poor are less (more) than those of the non-poor while a decrease in inequality implies that the proportional benefits received by the poor are more than those of the non-poor. Thus, in strict terms, growth is pro-poor when it is accompanied by a reduction in inequality. A recent World Bank study by [45] has come out with a much stronger result that the income of the poor rises one-for-one with overall growth. It means that the proportional benefits of growth enjoyed by the poor are the same as those by the non-poor. An important implication of this research is that growth is good for the poor irrespective of the nature of growth. To achieve a rapid reduction in poverty, the government should focus on maximizing economic growth while maintaining macroeconomic stability.

Table1: Decomposition of Poverty in Rural Nigeria into Growth and Redistribution Components

		Decomposition of Poverty into Growth and Redistribution Components			
		Datt and Ravallion		Shapley	
	Growth	Redistribution		Growth	Redistribution
P ₀	Component	Component	Residual	Component	Component
t ₁	-0.239	-0.369	0.258	-0.109	-0.240
t ₂	0.088	-0.112	-0.258		
P ₁					
t ₁	-0.042	-0.082	0.008	-0.038	-0.079
t ₂	-0.034	-0.075	0.008		
P ₂					
t ₁	-0.030	-0.061	0.011	-0.025	-0.056
t ₂	-0.019	-0.049	-0.011		

Source: Author's Computation from Survey Data, 2012

4. SUMMARY AND CONCLUSION

This study examines the change in poverty levels among rural population in Nigeria over a period of time. Two different periods are chosen. The initial period is 1996 while the final period is 2004. The study is based on secondary data obtained from National Consumer Survey of 1996 and 2003/2004 Nigeria Living Standard Survey.

Estimation of poverty for the two periods reveals that there was a higher incidence of poverty during the initial period than during the final period. The overall incidence of poverty in the country reduced from 69.2 in 1996 to 65.1 in the second period (2004). Economic reforms have been pursued at different levels across the country, and this seems to have enhanced variations in economic growth. Other than the role of agriculture in rural Nigeria, the rapid growth of new components of the tertiary

sector, such as information technology, business process services, financial institutions, and infrastructure services have impacted upon economic growth in varying degrees across the country. Interestingly, this is possibly because of good governance of the reform period, and the beneficial growth/mean effect on poverty increased in magnitude in the reform period relative to the pre-reform period. Thus according to [44], reforms seem to have a close association with the rise in growth effects, indicating that both economic growth and its ability to reduce poverty are achieved in the reform process. A strategy of growth with employment generation would help the poor benefit from economic reforms, enhancing not only the growth effect but also making redistribution effect more beneficial to poverty reduction. The reduction could be as a result of reform programmes of the present system of government. The distribution sensitive poverty severity index has also reduced during the final period of study. This is an indication of transfer of more of the budget to the poorest households.

Decomposition of poverty into growth and redistribution components shows that during the initial period, the contribution of growth to poverty was more than that of redistribution. Wealth in the country was concentrated in few hands and not equally distributed among the mass majority. This resulted into increasing inequalities in personal incomes. During the final period, redistribution contributes less to poverty because of more egalitarian distribution of resources. Shapley decomposition values for both periods indicate that both growth and redistribution contribute to poverty reduction at different magnitudes. There is a decline in poverty for both periods as a result of effects of growth and redistributive policies in the country within the periods.

The evidence from the decomposition analysis buttresses the view that equitable distribution of income, and therefore pro-poor growth, is essential for growth to translate into meaningful and rapid poverty reduction.

Competing Interest

No competing interest exists in this study.

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