

Income Inequality by Income Sources in Eastern Senatorial District of Kogi State

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Abstract

The major public policy challenge in the developing world like Nigeria is the problem of income inequality. This is because in most developing economies of the world like Nigeria, incomes are unequally distributed among individuals and groups because of differences in political power, intellectual power, and economic power which are the prerequisite for income option. This study therefore examines the levels of income inequality and poverty among households in Eastern Senatorial District of Kogi State. Data for the study were collected with structured questionnaires administered to 675 randomly selected households in the area. This research work effectively used two research hypotheses to guide the study. The analytical tools employed were descriptive statistics, Gini-coefficient and coefficient of variation methods. Descriptive statistics were used to describe the spread of the responses of the respondents on sources of income from primary and secondary sources. While Gini coefficient decomposition results show the variation in the level of income inequality as explained by various Gini coefficients of income sources. Breakdown of the analysis shows that farm income was 0.433, wages and salaries 0.772, craft and Artisan 0.543, entrepreneurial 0.865, trade 0.752, other incomes 0.665 and credit 0.875 meaning that there is variation in level of income inequality in the area. From the analysis of coefficient of variation, it was discovered that while farm income contributed 50.1% to total inequality, off- farm income as a whole contributed 49.9% of total inequality. From the result of the analysis, the two hypotheses stated were tested and rejected. Based on these, recommendations such as improvement and marketing of agricultural product for optimal growth and efficiency and provision of sustainable non- farm employment in the area and others were proffered.

Introduction

Nigeria is characterized by uneven distribution of income among individuals and groups; this pattern of income distribution makes different people living in the same environment get more income than others. Usually, the pattern of income distribution determines individual and group contributions to the growth of National Income (Todaro 2004). This is because people differ in skills, talents, status, intellectual power, social power, and political power, which are the prerequisite for productivity and income options. In fact, the hierarchical arrangement of individuals and groups in the society contributes to their positions and the level of income earned (Aigbokhan, 2000). Income inequality is referred to as unfair income distribution among individual households the society Heshmati (2004). It is the share of total income against the cumulative proportion of income received by individuals or groups in a particular society. Neutel and Heshmati (2006), opine that income inequality is income differential between the rich and the poor, which results in unfair income distribution. Also, Babatunde (2008) added that income inequality can be conceptualized as the dispersion in income between and within individuals and groups in any society. It is regarded as a welfare indicator because it is used to measure the level of income or consumption of individuals in the society.

In the same vein, income inequality may be referred to as income gap or difference in income between individuals or groups in different hierarchical level in the society. It is the income difference between the 'have' and the 'have not', which is characterized by different income sources. Usually different income sources account for income inequality. Income may be derived from many sources such as wages and salaries, farm income, livestock income, entrepreneur income, transfers, and rentals, depending on one's position in life. This indicates why most people in the society do not participate equally in socio-economic life. However, because of the linkage between income inequality and poverty, reducing income inequality has for long been the concern of policy makers.

For instance, the programmes and policies of National Accelerated Food Production Programme of 1972, Operation Feed the Nation of 1976, Green Revolution of 1979, Back to Land Programme of 1986, Directorate for Food, Road and Rural Infrastructure (DFRRI) of 1986, Better Life Programme (BLP) of 1987, National Directorate of Employment (NDE) of 1986, Peoples Bank of Nigeria (PBN) of 1989 and NEEDS of 2003, to mention but a few were all meant to reduce poverty and close 'gap' of income inequality and poverty in the country. Also, tax policy and government expenditure are used to infuse equality in the distribution of real income among citizens. In recent years, different programmes and policies on welfare, health, employment, and education have been put in place in order to reduce the consequential effects of income inequality and poverty (NEEDS 2003). These policies seem to have yielded little or no result because of maladministration and corrupt practices that characterize the Nigerian Society. Even the proposed plans of offering farmers improved irrigation, access technological farming and better farm inputs to boost agricultural production, and tackle poverty,

supporting small and medium scale enterprise for job creation, together with State Economic and Empowerment Strategies (SEEDS) meant to address the inequality 'gap' between the rich and the poor may fail because of the same injustice. A high level of income inequality results to inefficiency in allocation of assets within the economy. It may also lead to discontent among the people, which may result to political unrest and instability in governance. It may also lead to increase in violence, corruption, prostitution, armed robbery, embezzlement, over invoicing, stealing of public fund and low pace of economic development. This research therefore, embarked on household analysis of income inequality in Kogi State with particular reference to Eastern Senatorial District of the State. As a case study, Eastern Senatorial District is located at the Eastern part of Kogi State and it is chosen for the study because of its high prevalence inequality level, location, and population size. Despite its small population size and location the Senatorial District was also identified as the most backward in the country in terms of educational pursuit, employment opportunity, and infrastructural development in the country (KOSEEDS 2005)

Statement of the problem

In spite of the increase in workers' salaries and other government efforts to improve people's welfare and their standard of living to encourage human capital development, the ugly trend of income inequality have been seen as treat to the developmental effort of the government in the country. Some studies attributed this situation to imperfection in labour and goods markets and the characteristics of culture of poverty, while others see it as differential in human capital (See Aigbokhan 2000).

Cangarajah, Ngwafon and Thomas (1997) reported increasing level of income inequality between 1980s and 1990s as shown by Gini-coefficient of 38.1 percent in 1985 and 44.9 percent in 1992 despite the increase in GDP per capita over the years. Similarly, Aigbokhan (2000) found that income inequality in Nigeria worsened after Structural Adjustment Programme (SAP) of 1986. World Bank (2003) estimated that in 1997 the Gini-index of income inequality was about 0.506 using the 2001 National Living Standard Survey (NLSS) Data. Adeoti and Oyekale (2006) also reported that the overall Gini-index for Nigeria was 0.580. In terms of income inequality, based on location, they discovered that income inequality in rural areas was 0.5278 when compared to urban areas of 0.508 and states that employment income increases income inequality while agricultural income decreases it. In contrast, Otsuka (2002) is of the opinion that agricultural income is inequality increasing while wage and self-employed are inequality decreasing. In similar ways, Aigbokhan (2000), Nord (1980), Deolalika (2002), and Adebayo (2002) submitted that income inequality and poverty exist more in rural than urban areas in several parts of Nigeria.

Several studies in North-central part of the country where the study area is located have been conducted on income inequality and poverty, but none has been done in Kogi State with particular reference to Eastern Senatorial District of the State. Some of the existing studies in the state were concentrated on poverty and poverty reduction strategies. The study therefore aimed at evaluating the levels of income inequality that arises from different households in Eastern Senatorial District of Kogi State. However, the problem behind this study is that in a rich country like Nigeria where there are abundant natural and material resources, large population of her citizens are still wallowing in poverty?

On the other hand, most of the previous studies conducted were not state specific. However, the choice of Eastern Senatorial District in Kogi State for the study stems from the fact that small sample size provides thorough, in-depth, comprehensive and well-ordered information concerning the social unit in question than large sample size [Nworgu 1991]. It is also believed that small sample size provides more statistical prediction in terms of degree of intensity and depth of investigation than large sample size. Therefore, an in-depth study of this type provides the policy makers with an insight on welfare package geared towards reducing inequality gap and poverty in the district.

Furthermore, some of the previous studies identified the sources of income that contributes to overall inequality and poverty from economic variables such as income from labour, and non-labour market, self-employed, rental, and transfers, but such studies had no regard to breakdown of income sources such as trade, craft and artisan, credit and other incomes which are bases of income for a large population. For instance, Babatunde (2008) pointed out that agricultural production as a major source of income for the rural households, if promoted, decreases income inequality among rural dwellers. On the other hand, Adams and Alderman (1992) opine that despite the fact that non-farm income reduces income inequality, it is not all sources of non-farm income that have a favourable effect on income distribution. Of the three main sources of non-farm income, unskilled, self-employed, and government employment, only the unskilled labour is an inequality-decreasing source of income. In contrast, non-farm income such as government employment is an inequality-increasing source of income and accounts for a larger proportion of 21 to 31 percent of non-farm income inequality. The above controversy from the studies contradicts the earlier report of Otsuka (2002).

Despite these controversies, there has been concerted effort by government at various levels either Federal, State or and Local, to close the 'gap' between the rich and the poor through its policies and programmes. In Kogi State, government efforts towards such a programme can not be under estimated. However, with these efforts and

policies put in place to bridge the widening 'gap' between the rich and the poor, the 'gap' continues to widen. In light of the above, the following research questions become necessary.

- i. What is the level of income inequality among different households in East Senatorial District of Kogi State?
- ii. What is the contribution of each income source to the overall income inequality in the area?

Objectives of the study

The general objective of the study is to determine the levels of income inequality among households in Eastern Senatorial District of Kogi State. The specific objectives are:

- i. To determine the level of income inequality among different households in Eastern Senatorial District of Kogi State.
- ii. To ascertain the contribution of each income source to overall income inequality in the area.

Research Hypotheses

Based on the above objectives, the following research hypotheses were formulated to guide the study.

Ho₁: There is no significant difference between the level of income inequality and among different households in Eastern Senatorial District of Kogi State.

Ho₂: There is no significant difference between the contributions of each income source to the overall income inequality in the area.

Significance of study

Income inequality has become major challenges facing mankind in most developing countries of the world like Nigeria. This is because many people in the country continue to suffer pronounced deprivation even as others enjoy increasing prosperity. The relevance and usefulness of this study therefore is basically to avail the Government the opportunity of determining inequality problem in the country with the view of tackling such problem with available policies so as to bridge the gap of inequality in income. This study is justified because it will help to address inequality problem in Nigeria with particular emphasis on Kogi State since this is one of the major focuses of KOSEEDS in the State and NEEDS in the country. The knowledge acquired from the study will help in designing policies that are expected to reposition the households in poverty and provides policy focus geared towards bridging the gap of income inequality in the country. Also the empirical results obtained from socio-economic variables associated with welfare status of individual households will enable policy makers to redirect resources to those sectors especially the targeted groups in chronic inequality level that need equality for sustainable economic growth and development. The findings from the study will also provide policy makers, planners and programme managers with core simple policy indicators for monitoring welfare packages and its effect on development programmes and living standards of the population in the country with emphasis to Eastern Senatorial District of Kogi State. Finally, the findings from the study will be of immense benefit to academia, and other stakeholders in education industry in their quest to keep abreast with the latest findings on income inequality in the Kogi State and Nigeria at large.

Scope of Study

The research work used data from 675 households collected through the use of survey design for the study. The researchers' survey was constructed to determine and provide information on the sources of income from various income generating activities in Kogi East identified as, wages and salaries, farm income, entrepreneurial income, craft and Artisan, trading, other incomes and credit. These variables are objectively used to assess the levels of income inequality and the contribution of each income source to overall inequality in the area.

Methodology

Descriptive statistics were used to analyse the levels of income distributions. Hence, frequencies, percentages and mean were used.

Inequality Measurement

Following objective 1 the prevailing inequality level is measured using the Gini-coefficient. Comparatively, the use of Gini coefficient in the measure of income inequality conforms to the assumptions of Pigou-Dalton transfer principles, income scale independence, and principle of population and anonymity of symmetry but fails the decomposability axiom if the sub-vector of income overlaps. Following Lerman and Yitzhaki (1986) in Fonta, Ichoku, Ibor and (2010), the Gini Coefficient for any particular income source K is computed as:-

$$G_K = 2 \frac{COV[Y_K, F(Y_K)]}{\mu_K}$$

Where

Y_k = the income of the household (i.e Farm and non-farm income)

$F(Y_k)$ = the cumulative distribution of income source K, and

μ_K = household mean income

If for instance we define G_T as the Gini coefficient of total income, then following the properties of covariance decomposition, G_T can be stated as:-

$$G_T = \frac{2 \sum_{i=1}^K \text{COV}[Y_k, F(Y_k)]}{\mu_T} = \sum_{i=1}^K R_K, G_K, S_K$$

Where

R_K = the Gini correlation between income source K and the distribution of total income.

G_K = the Gini coefficient from different source K.

S_K = household share of income source K on total income.

In this case therefore, the equation above allows the decomposition of the influence of any income component, upon total income inequality as a product of three easily interpreted terms (Fonta, Ichoku and Ibor2010). This according them is:

- i. How important the income source is to the total income (S_k)
- ii. How unequally and equally the distribution of income source is (G_K)
- iii. How income source and the distribution of total income are correlated (R_K)

Lerman and Yitzhaki (1986) in Fonta, Ichoku, and Ibor (2010) states that by using this method, the effects of small change in income from any source i.e (K) can be estimated when income from all other known sources are held constant. They contended that the effect of such estimate is given by:-

$$\frac{\Delta G_T / \Delta K}{G_T} = \frac{S_K, G_K, R_K}{G_T} = -S_K$$

This means that an infinitesimal change in income K has equalizing or un-equalizing effects if the share of Gini explained by source of income is smaller in total income. This shows the extent to which income source favour or disfavours the low income earners. However, in order to ascertain the contribution of each income source to overall income inequality decomposability axiom becomes the last resort. Thus, the contributions of income sources to overall income inequality were decomposed based the coefficient of variation method.

The Coefficient of Variation Approach

The coefficient of variation is defined as the standard deviation divided by the mean. It is a standard inequality measure used to compare income inequality in different units. The coefficient of variation is used to correct the measurement error of variance. The coefficient of variation is calculated as: $CV = \sqrt{V/Y}$

Where CV = Coefficient of variation

V = Variation

Y = Average income level.

Coefficient of variation has important property; which is when income of all individuals in the distribution is the same coefficient of variation CV becomes 0. This is because the numerator of the formula is zero (V is zero). The important drawback of coefficient of variation CV is that it tends to be larger even when mean income is low.

Analyses of Data

In this section, we present our data, analyze and discuss our results in line with the objectives of the studies.

Analyses of incomes by their sources

Distribution of household respondents by their primary sources of income

Primary source of income	No. of household respondent	Distribution (%)
Farming	360	53.3
Government employment	69	10.2
Trading	75	11.1
Private firm	36	5.3
Craft and Artisan	99	14.7
Other incomes	26	3.9
Credit	10	1.5
Total	675	100

Source: Field Survey Data.

Household distribution by primary sources of income as shown in Table 1 reveals that 53.3% of the sampled households indicated Farming as their primary sources of income, while government employment, 10.2%, trade 11.1%, private firm 5.3%, crafts and artisans 14.7% , private 1.5%, while other incomes and credit indicate

3.9% and 1.5% respectively as their primary sources of income.

Distribution of household respondents by their secondary sources of income

Secondary source of income	No. of respondents	Distribution
Farming	315	46.7
Government employment	45	6.7
Trading	57	8.4
Private firm	78	11.6
Craft and artisan	141	20.9
Other incomes	28	4.1
Credit	11	1.6
Total	675	100

Source: Field Survey Data

Also, table 2 revealed that 46.6% of the sampled households indicate farming as their secondary sources of income, government employment 6.7%, trading 8.4%, private firm 11.6%, while 20.9% are relatively engaged in crafts and artisans, other incomes 4.1% and credit 1.6%. This distribution generally reveals the importance of farming to other sources of income in the study area.

Ranges of Income from Primary sources of household Respondents:

Income from primary sources	No. of respondents	Distribution (%)
Less than 5,000	90	13.3
5,001 – 10,000	321	47.6
10,001 – 15,000	135	20.0
15,001 – 20,000	72	10.7
+ Greater than 20,000	57	8.4
Total	675	100.0

Source: Field Survey Data.

Table 3 above indicates that 13.3% earn income less than 5000 Naira, 47.6% earn income between 5001-10000 Naira, likewise, 20.0% earns income between 10,001—15,000 Naira, those who earn income between 15001-20000 are 10.7%, while only 8.4% earn income above 20,000 Naira.

Ranges of income from secondary sources of household Respondents

Income from secondary Source	No. of respondents	Distribution (%)
Less than 5000	50	7.4
5,001-10,000	256	37.4
10,001-15,000	285	42.2
15,001-20,000	45	6.7
Above 20,000	39	5.8
Total	675	100

Source: Field Survey Data.

The table 4 above showed that 37.4% earn income between 5001-10000 Naira, likewise, majority of people earns income between 10,001—15,000 Naira, those who earn income between 15001-20000 are 6.7%, while only 5.8 percent earn income above 20,000 Naira.

PRESENTS KOGI EAST SENATORIAL DISTRICT HOUSEHOLD INCOME BY INCOME SOURCES

S/No	Sources of income	Total income in the enumeration areas	Share of Each Source of income to Total Income	% Share of each income source to total income
1	Farm Income	20,547,771	0.526	52.6
2	Wages & Salaries	11070651	0.283	28.3
3	Craft/Artisan	1,640,544	0.042	4.2
4	Enterprise	2,497,581	0.064	6.4
5	Trade	682,344	0.017	1.7
	other incomes	2,173,724	0.056	5.6
7	Credit	472,149	0.012	1.2
	Total	39,084,764		100

No. of observation 675

Source: Author's computation

Table 4 above shows how much different income sources contribute to total household income in the sample. From the analysis farm income contributed 52.6% to total household income, wages & salaries contributed 28.3%, while craft & Artisan contributed 4.2%. Break down of other sources are enterprise 6.4%, trade 1.7%, other incomes 5.6%, and credit 1.2%. The result of the analysis indicates that all households derive income from farming, which however, accounts for half of total income. The other half is derived from different off-farm sources. The non-agricultural wage employment includes formal and informal jobs in craft, construction, manufacturing, education, healthcare, commerce, administration, and others services. The smaller contribution of non-agricultural wage income to total income could be because of the little educational and professional qualification of the rural farmers, which reduces their earning from available non-agricultural activities. Other incomes are mainly derived from shop keeping, food processing and other local services.

On closer observation, the total income share percentage in various income-generating activities, the result show that households participating in enterprise and other incomes activities receive the largest income per adult equivalent of about ₦2,497,581 (6.4%) and ₦2,173,724 (5.6%) respectively. This indicates that an enterprise and those involved in other incomes is the most remunerative, and the productivity of family labour is highest in these areas. However, because engaging in other income generating activities require initial investment, households that are disadvantaged in terms of financial capital, will be hindered from reaping the potential benefit of such incomes. The analysis provides background information on the amount and sources of income earned by an average household, which would later form the basis of the income inequality analysis.

INCOME INEQUALITY ANALYSIS

Income inequality measurement in Eastern Senatorial District of Kogi State was carried out by the use of Gini coefficient proposed by Lerman and Yitzhaki [1986] in Fonta, Ichoku, and Ibor [2010]. Table 5 in appendix 1 presents the Gini decomposition of income inequality by income sources. The decomposition analysis of different income sources shows that farm income has a Gini coefficient of (0.433), wages & salaries (0.772), craft and Artisan (0.543), Entrepreneur (0.865), Trade (0.752), other incomes and Credit (0.543) and (0.872) respectively. Also, households with credit as their source of income have the highest Gini coefficients of 0.872, while households with farm income have the lowest of 0.433. The last column on table 5 shows the marginal effect of household income total income suggesting that a 10% increase in farm income other things being equal would reduce the overall Gini coefficient by -1.67%, while a 10% increase in wages & salaries income would reduce the overall Gini coefficient by -0.42%. Likewise, 10% increase in craft and Artisan, entrepreneurial, trade, other incomes, and credit other things being equal, would reduce their overall Gini coefficient by -0.07%, -0.26%, -0.13%, -0.52% and -0.11% respectively.

The Coefficient of variation Analysis

Also, the contribution of income sources to overall income inequality in Eastern senatorial District of Kogi State was carried out using coefficient of variation approach. The result of the analysis as shown on table 7 in appendix 2 revealed that farm income contributed 52.6% of household income and accounted for 50.1% of total income inequality. Wages and salaries contributed 28.3% of to household income and accounted for 33.6% of total inequality. Craft and Artisans contributed 4.2% and accounted for 4.9% of total income inequality and entrepreneurial contributed 6.4% of household income and accounted for 5.4% of total inequality. Others are trade 1.7% and accounted for 0.6% of total inequality, other incomes and credit contributed 5.6 and 1.2% respectively and accounted for 5.3% and 0.1% of total income inequality. By decomposing the overall income inequality between farm and non-farm income sources, the result shows that off-farm income as a whole accounts for 49.9%, while farm income accounts for 50.1% of total inequality. This is totally at variance with Adams (1999), Van den Berg and Kumbi (2006), who reported that farm income, contributes more than off-farm income to total inequality in rural Egypt and Ethiopia respectively. From the analyses it is discovered that farm income is inequality decreasing source of income, while off-farm incomes are inequality increasing sources of income. The policy implication is that increasing incomes to these sectors will reduce inequality in the area. This is expected because inducement for these sectors through any type of policy intervention programme such as micro-credit scheme is a direct effort to increase the income of the poor people who have no access to paid jobs in both urban and rural areas. The inequality increasing source of income attributed to wages and salaries is not far from the facts that the State is suffering from mass unemployment and disparity in pay package of workers. Furthermore, the share of the inequality due to farm income (50.1%) could be mitigated by providing equal opportunity to farmers in terms of loan facilities, good road network for transportation, provision of agrochemicals as well as irrigation facilities. In this case inequality will be reduced by 50.1% in the study area.

However, since the relative contribution to total inequality figures are not equal to one, we may also conclude that the whole income sources are inequality decreasing sources of income. But in absolute term, wages and salaries, craft and Artisans, entrepreneurial, and other incomes are inequality increasing sources of income.

Conclusion and Policy issues

Source of income from various income generating activities in mitigating income inequality has attracted little or no attention in Nigeria. Very few studies have really dealt with income sources and income inequality. However,

almost all the whole population in country depends on one income source or the other for survival. Few studies conducted along this line have only identified some peculiar income sources such as wages and salaries, farm income, livestock income, entrepreneur income, transfers, and rentals, forgetting such income that are common in the economy such as craft and Artisan, trading, self employment, credit and other incomes.

The major policy implication from this study is therefore; that income inequality can be reduced through policies geared to assist the poor who mostly depend on non-farm income as the way out of poverty. This may include public spending especially micro-credit scheme on the non-farm activities such as craft and Artisan, Entrepreneurial, trade, and self-employed to encourage these sectors of the economy to improve on their productive ability and marketing of their products.

Likewise these sectors should be provided with access market and modern management technique as well as a dynamic and vibrant business environment by developing infrastructure conducive to private led economy. Also inequality on non-farm could be reversed if government makes adequate provision for infrastructure that can promote the activities of these occupational groups such as electricity, drinkable water, market development and the likes. All these can reduce the prevailing inequality by the same magnitude.

It was also discovered that farm income contributes more than off-farm income to overall income inequality and farm income is increasing source of income. Following this result therefore, policy on how agricultural activity could be promoted among households in the Senatorial District should be pursued to make agricultural production attractive. Government is therefore encouraged to provide inputs such as improved seedling, herbicides, fungicides, pesticides, soft loan, and better extension services delivery to farmers in the state.

There is also need to upgrade technologies for agricultural production in order to further improve equity in the distribution of farm household income. Likewise, marketing of agricultural products should be encouraged through price support programme. In this case, government should involve themselves in purchases of agricultural products and keep their prices above equilibrium prices in the market. This will encourage farmers since it involves a transfer of income from the rest members of the society to the farmers. There could also be an improvement in the underdeveloped market in the area through increase in public spending especially towards the construction and maintenance of existing market structures in the rural and urban areas.

Policy should also be focused on reducing barriers to market integration between rural and urban areas through provision of infrastructure especially good and accessible roads network in the area. This will enhance a good distribution network and encourage the farmers into more production to increase their income.

APPENDIX 1

TABLE 5 SHOWING THE GINI DECOMPOSITION OF INCOME INEQUALITY BY SOURCES.

S/N	Income sources	share in total income SK	Income source Gini Gk	Gini correlation with total income RK	Share in total income inequality GT $S_k \times G_k \times R_k$	Share in Gini of total income SG $S_k G_k R_k / G_k$	Marginal effect on Gini of total income 10% change $SG - SK \times 10\%c$
1	Farm Income	0.526	0.433	0.682	0.155	0.359	-1.67
2	Wages & Salaries	0.283	0.772	0.853	0.186	0.241	-0.42
3	Craft & Artisan	0.042	0.543	0.822	0.019	0.035	-0.07
4	Entrepreneurial	0.064	0.865	0.601	0.033	0.038	-0.26
5	Trade	0.017	0.752	0.239	0.003	0.004	-0.13
6	other incomes	0.056	0.665	0.674	0.025	0.004	-0.52
7	Credit	0.012	0.872	0.047	0.0005	0.0006	-0.11
8	Total income	1.000	0.764	1.000	0.764	1.000	

Observation 675

Source; Author's Computation

APPENDIX 2

TABLE 6 SHOWING THE CONTRIBUTION OF INCOME SOURCES TO OVERALL INCOME INEQUALITY

Gini coefficient and coefficient of variation method were used to ascertain the contribution of each income source to overall inequality in Kogi State.

Sources of income	Share of income to total income S_K	Income sources Gini coefficient G_K	Coefficient of correlation with total income R_K	%contribution to total income inequality $P_T \frac{G_T}{\sum S_K \times G_K \times R_K}$	Relative contribution to total income inequality $G_K R_K / G_K$	Absolute contribution To total inequality $G_K R_K$
Farm income	0.526	0.433	0.682	50.1	0.682	0.295
Wages & salaries	0.283	0.772	0.853	33.6	0.853	0.659
Craft& Artisans	0.042	0.543	0.822	4.9	0.822	0.446
Entrepreneurial	0.064	0.865	0.601	5.4	0.601	0.549
Trade	0.017	0.752	0.239	0.6	0.239	0.179
other incomes	0.056	0.684	0.674	5.3	0.674	0.478
Credit	0.012	0.872	0.047	0.1	0.047	0.041

Source; Author's Computation

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