

# Effect of Livelihood Diversification on Poverty Reduction Among Members of Cooperative Rural Farmers in Anambra State, Nigeria

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## Abstract

This study investigated the effect of livelihood diversification on poverty reduction among members of cooperative rural farmers in Anambra State, Nigeria. The specific objectives are to ascertain the extent to which craftsmanship, paid labour, trading, service delivery and asset income have influenced poverty reduction among members of cooperative rural farmers in Anambra State. The study was a descriptive survey on a sample 142 respondents. Data for the study were obtained using a structured questionnaire and was subsequently analyzed using frequency tables, percentages and regression technique of the ordinary least square. Findings revealed that craftsmanship, Paid labour, service delivery and asset income have significant influence on poverty reduction among members of cooperative rural farmers in Anambra State. The study concludes that four out of the five regression coefficient - craftsmanship, paid labour, trading and asset income - significantly influenced poverty reduction among members of cooperative rural farmers in Anambra State, Nigeria. Service delivery was not significant but it had positive relationship with poverty reduction among members of cooperative rural farmers in Anambra State thus suggesting inadequate service delivery businesses among members of cooperative societies. Based on the findings of the study, the following recommendations are made: Cooperative societies should educate members on livelihood diversification craft engagements to help lift their members from poverty. Cooperative societies should train their members on skills that will enable them seek rewarding paid labour as a means of diversifying their livelihood strategies. The societies should help members obtain adequate affordable credit to go into meaningful trading. This is because trade was found to significantly reduce poverty among members of cooperative rural farmers in Anambra State. Members of cooperative should consider going into service delivery business like financial services which is a trending business today. Apart from commercial building for renting and receiving royalty from farm land, members of cooperative should consider investment in Stocks and securities, real estate, franchise and crypto businesses.

**Keywords:** Livelihood Diversification, Poverty Reduction, Cooperative, Rural Farmers.

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## 1. Introduction

People engage themselves in different means of livelihood for survival. Apart from farming, people engage in jobs like artisans, trading, paid labour, online business and asset income activities. Rural dwellers in Nigeria who engage in farming as a means of livelihood are predominantly resource poor. <sup>[1]</sup> Farmers in Nigeria are regarded as resource poor because farming practices in Nigeria are predominantly subsistence and the farmers whose aspiration in terms of expansion of scale of production has been low. The reason behind the farmers low scale of production is attributed to their small farm holdings (Afodu et al, 2019). Obinyan <sup>[2]</sup> asserted that the farm holding of the rural farmers in Nigeria is most often less than 2 hectares and are characterized by low productivity. This leads to low incomes and low capital investment (Obinyan, 2000). Arguably, the poor state of agricultural practice by the rural farmers is the indication of mass poverty in Nigeria. Okere and Shittu <sup>[3]</sup> posit that the poverty incidence in Nigeria is higher among the rural households most especially the farm households.

Consequently, livelihood diversification has become a

strategy for overcoming economic and environmental shocks and it has been instrumental in poverty reduction <sup>[4]</sup>. People can now engage themselves as artisans, traders, paid labourers, service delivery and asset income activities. However, the possibility of rural inhabitants engaging in alternative sources of is subjective depending on the level of infrastructural development in the area. All the government support for the rural people are mainly agricultural programmes which have not really lifted the people out of poverty rather rural poverty in Nigeria soars. <sup>[5]</sup> This assertion is corroborated by Desalegn <sup>[6]</sup> who posited that Nigeria must target investments in rural areas and agriculture to fight its alarming poverty rate. The 2019/2020 Nigerian living standards survey released by the National Bureau of Statistics, NBS, shows that 82.9million (40.1 per cent) Nigerians are poor. Disaggregating this data further unveils how poverty has burrowed into the space where most Nigerians domicile – the rural area (NBS, 2020). This statistics shows that poverty incidence in Nigeria is extreme thus fuelling a renewed interest in the study of inequality as it is seen as one of the main causes of the weak poverty-alleviation elasticity of growth.

This whole scenario is playing out before the COVID-19 pandemic. Before the crisis Nigerians were living in poverty and millions more were vulnerable to falling below poverty line. As noted by Oxfam [7] in Ibrahim and Taiga [8] the paradox of growth in Nigeria is such that as the country gets richer, only a few benefit, while the majority continue to suffer from poverty and deprivation. Recent data according to Quartz Africa [9] has dubbed Nigeria the poverty capital of the world. This assertion is supported in its reports revealed that 86.9 million Nigerians now live in extreme poverty representing nearly 50% of its estimated 180 million population- Nigeria is multi-dimensionally poor.

The National Bureau of Statistics (NBS) noted that more than 82.9 million Nigerians are poor (NBS, 2020). The bureau made this known in its report on Poverty and Inequality in Nigeria 2019, released on Monday. According to the NBS, 40.1 per cent of the total population in Nigeria was classified as poor, which implies that an average four out of 10 individuals in Nigeria had real per capita expenditures below N137, 430.00 last year. Invariably, the report said, the monthly income of an individual in this category is less than N11,500 while income per day is N38.00 (NBS, 2020). The NBS inequality report also indicated that Sokoto, Taraba, Jigawa, Ebonyi, Zamfara, Yobe and Adamawa are the poorest states in the country. The NBS said Sokoto State had 87.73 per cent poverty head count rate followed by Taraba with 87.73 per cent, then Jigawa which had 87.02 per cent and Ebonyi with 79.76 per cent. On the other hand, the report disclosed that Lagos, Delta, Osun, Ogun, Oyo, Edo and Anambra States had the least in terms of the poverty level. A breakdown of the data showed that Lagos State has 4.50 per cent poverty head count rate, Delta had 6.02 per cent while Osun State had 8.52 per cent. Furthermore, the report showed that Ogun recorded 9.32 per cent, Oyo had 9.83, Edo had 11.99 per cent while Anambra recorded 14.78 per cent. The report also showed that poverty was more prevalent in rural areas. The Urban Poverty rate was put at 18.04 per cent while the Rural Poverty rate was 52.10 per cent (NBS, 2020).

In order to overcome poverty, Afodu et al, (2019) noted that farmers no longer want to rely solely on farmer income. Farming as a livelihood activity is associated with immense risks and uncertainties which exposes the farming households to low standard of living, poverty and thereby decreasing their food security status. These risks and uncertainties associated with agricultural industry have led farming households to source for alternative sources of livelihood thereby diversifying their livelihood (Afodu et al, 2019). This assertion is also corroborated by Akaakohol & Aye (2014) who posits that majority of the farmers are smallholders who produce on a subsistence level, and often do not get optimum economic returns on their produce due to reasons ranging from bad road networks, poor storage facilities, lack of good processing techniques, inadequate government policies, to natural disasters like drought, flood, global warming, etc., some farm households therefore diversify into non-farm activities. This suggests that exploiting off-farm opportunities could offer a pathway out of poverty for the rural poor and that the rural economy should not be based only on agriculture but rather on a diversified array of livelihood activities and enterprises. Livelihood diversification in the study is aimed at finding the arrays of non-farm activities that have been very significant in addressing the challenge of rising poverty among the

rural farmers. Livelihood diversification is not only meant for livelihood survival and distress under deteriorating conditions. It also serves the purpose of livelihood enhancement under improving economic conditions where richer households with favorable agricultural conditions diversify with the motives to raise incomes or accumulate wealth. [10]

## 2.Statement of the Problem

This study was informed by the rising poverty of Nigerian farmers and their inability to finance their agricultural production has become endemic and cancerous eating into the fabrics of the national economy thus creating a wide food demand and supply gap. [11,12,13] Extant literature (Bachewe, Berhane, Minten & Taffesse [14] and Obinyan [15] posit that the farm holding of the rural farmers is most often less than two hectares and are characterized by low productivity. This leads to low incomes and low capital investment. Arguably, the poor state of agricultural practice by the rural farmers is the indication of mass poverty in Nigeria. Okere and Shittu [16] posit that the poverty incidence in Nigeria is higher among the rural households most especially the farm households. Consequently, improving the income of the resource poor farmers in Nigeria has been one of the major objectives of the government and its global partners over the years, and the government effort to lift the country from poverty has resulted in the development of programmes by successive government aimed at alleviating poverty and achieving food security. Yet, the poverty incidence in Nigeria continues to soar putting the country on the list of the poorest countries in the world. One of the ways the farmers has tried to help themselves out of poverty is to diversify their livelihood sources. Farmers can engage themselves in jobs like artisans, trading, paid labour, service delivery and asset income activities to alleviate their sufferings and improve their income. A number of studies have been carried out on livelihood diversification. All the studies confirm that livelihood diversification is beneficial and it helps to mitigate economic and environmental risks and to improve livelihood sustainability and regional sustainable development (Ibrahim & Taiga, 2020). Anambra State has a lot of potentials for livelihood diversification for farmers because of its enormous human, material and natural resources. It is one of the largest economic hubs in the country in terms of trading, asset income, service delivery and skilled trade. The state has in recent time transforming into the beehive of manufacturing and hospitality industries. However, it remains uncertain the extent farmers have diversified their livelihood sources thus warranting an empirical investigation to ascertain how non-farm income sources like salaries/wages, trading, online businesses, asset income among others could enhance the income of rural farmers particularly in Anambra State.

## 3.Purpose of the Study

The main purpose of the study is to examine the effect of livelihood diversification on poverty reduction among members of cooperative rural farmers in Anambra State, Nigeria. The specific purpose are to:

- i. Ascertain the extent to which craftsmanship has influenced poverty reduction among members of

cooperative rural farmers in Anambra State.

ii. Determine the extent to which paid labour has influenced poverty reduction among members of cooperative rural farmers in Anambra State.

iii. Examine the extent to which trading has influenced poverty reduction among members of cooperative rural farmers in Anambra State.

iv. Ascertain the extent to which service delivery has influenced poverty reduction among members of cooperative rural farmers in Anambra State.

v. Determine the extent to which asset income has influenced poverty reduction among members of cooperative rural farmers in Anambra State.

#### 4. Research Hypotheses

Ho1: Craftsmanship has no significant influence on poverty reduction among members of cooperative rural farmers in Anambra State.

Ho2: Paid labour has no significant influence on poverty reduction among members of cooperative rural farmers in Anambra State.

H3: Trading has no significant influence on poverty reduction among members of cooperative rural farmers in Anambra State.

Ho4: Service delivery has no significant influence on poverty reduction among members of cooperative rural farmers in Anambra State.

Ho5: Asset income has no significant influence on poverty reduction among members of cooperative rural farmers in Anambra State.

#### 5. METHODOLOGY

The chapter is presented the following subheadings: research design, area of the study, population of the study, sample size and sampling technique, data collection, sources of data, data collection instrument, administration of questionnaire and method of data analysis.

##### Research Design

This study adopts a descriptive survey research design. The Survey research according to Okeke, Olise and Eze (2008), consists of asking questions, collecting and analyzing data from a supposedly representative members of the population at a single point in time with a view to determine the current station of that population with respect to one or more variable under investigation.

##### Area of Study

This study will be carried out in Anambra Agricultural zone. The agricultural zone is one of the four agricultural zones in Anambra state: Awka, Anambra, Aguata, and Onitsha. The areas selected for study include: Anambra East local government area, Anambra West local government area and Ayamelum local government area. The three (3) local governments were purposively selected for the study because of their agricultural potentials.

Anambra East is a Local Government Area is made up of the following towns: Umuleri, Igbariam, Nando, Nsugbe, Aguleri, Otuocho, EziAguluotu, Mkpunando, EnugwuAguleri and Umuoba Anam. In Anambra East, Oil and Gas was found in large quantity on the bank of Omambala river and the first private refinery, airport and housing estate is about to be sited in Umuleri by the Orient Petroleum Resources PLC.

Anambra West local government area is made up of the following towns: Mmiata Anam, Odekpe, Umuoba-Abegbu Anam, Umuenwelum Anam, Owelle, Oroma-Etiti, Umueze Anam, Umudora Anam, Umuikwu Anam, Onono Anam, Ukwalla, Inoma-Akator, Nzam, Igbedor, Igbokenyi and Iyiora Anam.

Ayamelum local government area is made up of the following towns: Omor, Umueje, Omasi, Igbakwu, Umumbo, Anaku, Umuerum, Ifite Ogwari.

##### Population of the Study

The population of the study is made up all the members of agricultural cooperatives in Anambra agricultural Zone. Anambra agricultural Zone has a total of one thousand one hundred and thirty-six (1136) registered cooperative societies with a membership strength of Thirteen thousand two hundred and thirty-six (13,236). Out of the 1136 registered cooperative societies 987 of them are agricultural cooperative with a membership strength of 9187. (Ministry of Trade, Commerce, Market & Wealth Creation, Anambra State, 2020).

##### Sample Size and Sampling Technique

To determine the sample size for the study, three cooperative each were randomly selected from the three local governments in the agricultural zone.

To determine the sample size for the purpose of questionnaire distribution, the Taro Yamani formula was used. The formula is stated thus:

$$n = \frac{N}{1+N(e)^2}$$

Where n= Sample size  
N = Population  
e = Margin of error (5% or 0.05)  
I = Constant

Substituting in the above formula:

$$\begin{aligned} n &= \frac{490}{1+ 490 (0.05)^2} \\ &= \frac{490}{1+ 2.45} \\ &= \frac{490}{3.45} \\ &= 142.0 \\ &= 142 \end{aligned}$$

##### Data Collection

The researcher explored mainly the primary data. The primary data were obtained from members of the selected Farmers Cooperative Societies through the use of a structured questionnaire that was administered to them.

##### Description of Questionnaire

The researcher developed questionnaire which was used to collect data for the study. The questionnaire was titled effect of livelihood diversification on poverty reduction among members of cooperative rural farmers in Anambra State, Nigeria. The questionnaire has two sections. Section A and Section B. Section A sought information on socio-economic background of respondents. Section B was made up of items relating to the effect of livelihood diversification on income of cooperative rural farmers in Anambra State, Nigeria.

##### Analytical Tools

Descriptive and inferential statistics were used in the study. Descriptive statistical tools such as simple percentage and multiple percentages were used in analyzing demographic



profiles of the respondents while the regression model will be used to analyze specific objectives 1, 2, 3, 4 and 5. The regression analysis was run using SPSS so as to determine the order of importance of the explanatory variables in explaining the variations observed in the dependent variable. The t-test was performed to test the significance of each of the explanatory variables at alpha level of 5%.

#### Data Analysis

The regression models were specified to analyze objectives 1-5. The regression models are specified thus:

$$Y = f(x_1, x_2, x_3, x_4, x_5) \dots \dots \dots (1)$$

Where: Y = Farmer Income

x1 = Craftsmanship (Weighted mean)

x2 = Paid labour (Weighted mean)

x3 = Trading (Weighted mean)

x4 = Service delivery (Weighted mean)

x5 = Asset income (Weighted mean)

The above model is specified explicitly thus:

$$Y = \beta_0 + \beta_1 + \beta_2 \text{ INC} + \beta_3 + \beta_4 + \beta_5 + \dots \dots \dots 2$$

Where  $\beta_0$  = intercept term showing values of Y when variable x1 to x5 are zero. That is the value Y is predicted to have when all the independent variables are equal to zero.

$\beta_1$  to  $\beta_5$  = the coefficients or multipliers that describe the size of the effect the independent variable (x1 to x5) are having on the dependent variable Y.

The econometric form of the model becomes more realistic with the introduction of the random or scholastic term  $+\alpha_i$  :

The econometric form of the model is express thus:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_n x_n + \alpha_i \dots \dots \dots 3$$

## 6. DATA PRESENTATION AND ANALYSIS

This chapter deals with the presentation and analysis of data collected from the field of study. The aim is to present the data in an interpretable form so that the variables of the study can be well understood.

From table 1, 68.3% of the respondents are males while 31.7% of the respondents are female. This suggests that there are more activate participation of males than females in the societies studied.

Table 2, revealed that 7.7% of the respondents are between the ages 18-32. 18.3% of the respondents are between the ages of 31-40. 31.7% of the respondents are between the ages of 41-50. 22.6% of the respondents, between the ages of 51-60, while 19.7% of the respondents are above 60years of age.

Table 3 revealed the educational qualification of the respondents. 6.3% of the respondents had primary education. 55.6% had secondary education while 38.1% had tertiary education.

Table 4 revealed the years of cooperative experience of the respondents. 12.7% of the respondents had 1-5years business experience. 14.8% of the respondents had 6-10years business experience. 40.8% of the respondents had 11-15years business experience, 40.8% of the respondents had 15-30years business experience in.

From table 5, 76.1% of the respondents are married. 19.0% of the respondents are single while 4.9% of the respondents are widow/widower.

Table 6 showed the major occupation of the respondents. 35.9% of the respondents are into farming. 16.9% of the

respondents are business leaders. 7.7% of the respondents are civil servant. 11.3% of the respondents are artisan. 19.7% of the respondents are into trading while 8.5% of the respondents are into other trade.

With respect to income of farmers, table 7 reveals 2.8% of the respondents earn between N1000 - N 20,000. 22.5% of the respondents earn between N20100 - N 40,000. 31.0% of the respondents earn between N40, 100 - N 60,000. 28.9% of the respondents earn between N1000 - N 20,000. 2.8% of the respondents earn between N60, 100 - N 80,000 while 14.8% of the respondents earn N80,100 and above.

As shown in table 8, with respect to effect of craftsmanship on poverty reduction among members of cooperative rural farmers in Anambra State, all the items of the variables met a minimum theoretical threshold of 3.0 which is the established mean cut-off. Thus, the descriptive statistics suggests that craftsmanship influenced poverty reduction among members of cooperative rural farmers in Anambra State. The weighted or grand mean of 3.13 and standard deviation of 0.901 explains this.

With respect to influence of paid labour on poverty reduction among members of cooperative rural farmers in Anambra State, respondents accepted that they work for somebody in a salon to earn money, they also accepted that they work in a farm mill and also work for someone in a tailoring shop. On the other hand they rejected that they teach in a private school, work in table Water Company in my village their community and have diversified into dry cleaning and housekeeping for people live in township. Consequently, only three out of the six items in all the variables that enhance poverty reduction among members of cooperative rural farmers in Anambra State construct met the theoretical mean threshold of 3.0. However, the grand mean of 3.14 and a standard deviation of 0.816 suggest that paid labour influenced poverty reduction among members of cooperative rural farmers in Anambra State.

From Table 10, respondents rejected that they trade on chemicals and have diversified into cosmetics business. They however accepted that they trade on food stuff, trade on clothing and textiles, trade articles and also trade on building materials. The weighted theoretical mean of 3.12 and standard deviation of 0.854 suggests that trading influenced poverty reduction among members of cooperative rural farmers in Anambra State.

As shown in Table 11, with respect to Effect of service delivery on poverty reduction among members of cooperative rural farmers in Anambra State, respondents rejected all the items in the variable construct of service delivery. All the item did not meets the theoretical mean threshold of 3.0 which is the established mean cut-off. Thus, the descriptive statistics suggests that service delivery did not influence poverty reduction among members of cooperative rural farmers in Anambra State with a grand mean of 1.84 and standard deviation of 1.657.

Table 12 shows the mean score of the effect of asset income on poverty reduction among members of cooperative rural farmers in Anambra State. Respondents accepted that they have commercial building for renting and they also collect royalties from a farmland. They disagree that they have investment in Stocks and securities, do Real Estate Investment Trusts business, do Small Businesses/

Franchise and invest in crypto currencies and asset class mix. Only two items meet the theoretical mean threshold of 3.0. Thus, the descriptive statistics still suggests that asset income influenced poverty reduction among members of cooperative rural farmers in Anambra State with a grand mean of 3.09 and standard deviation of 0.834. Dependent Variable: Income of Farmers

The regression table revealed the analysis of the five livelihood diversification indicators modeled in this study and their regression coefficients, standard error, t-test statistics and the probability value of each of the individual regression coefficient. The R, R<sup>2</sup>, adjusted R<sup>2</sup> and F-Statistics was also included in the table.

The regression coefficients - craftsmanship, paid labour, trading, service delivery and asset income- represent by the heading "B" in the regression table explains the effect of livelihood diversification on poverty reduction among members of cooperative rural farmers in Anambra State, Nigeria. In other words it explains how craftsmanship, paid labour, trading, service delivery and asset income have influenced poverty reduction among members of cooperative rural farmers in Anambra State, Nigeria. The regression result tells us the nature of relationship between the regression coefficients and the dependent variable which is the poverty reduction. From the result, all the regression coefficients have positive relationship with poverty reduction among members of cooperative rural farmers in Anambra State, Nigeria. Again, the table revealed that a unit increase in Craftsmanship will bring about 34.9% poverty reduction among members of cooperative rural farmers in Anambra State, Nigeria. A unit increase in paid labour will bring about 45.6% poverty reduction among members of cooperative rural farmers in Anambra State, Nigeria. A unit increase in terms of trading will bring about 53.0% poverty reduction among members of cooperative rural farmers in Anambra State, Nigeria. A unit increase in terms of service delivery will bring about 11.6% poverty reduction among members of cooperative rural farmers in Anambra State. A unit increase in terms of asset income will bring about 31.9% poverty reduction among members of cooperative rural farmers in Anambra State.

In order to evaluate effect of livelihood diversification on poverty reduction among members of cooperative rural farmers in Anambra State, Nigeria, the analysis was also done based on statistical criteria by applying the coefficient of determination (R<sup>2</sup>) and the F-test. In general, the joint effect of the explanatory variables-independent variables- in the model account for 0.750 or 75.0% of the variations in poverty reduction among members of cooperative rural farmers in Anambra State, Nigeria. This implies that 75.0% of the variations in the poverty reduction among members of cooperative rural farmers in Anambra State, Nigeria are being accounted for or explained by the variations in craftsmanship, paid labour, trading, service delivery and asset income. While other independent variables not captured in the model explain just 25% of the variations in poverty reduction among members of cooperative rural farmers in Anambra State.

Four of the regression coefficient - craftsmanship, paid labour, trading and asset income.- out of the five coefficients significantly influenced poverty reduction among members of cooperative rural farmers in Anambra State, Nigeria. service delivery is not significant but they have positive relationship

with poverty reduction among members of cooperative rural farmers in Anambra State thus suggesting inadequate service delivery businesses among members of cooperative societies.

From table 13, the t-test result is interpreted below:

The following null hypotheses were formulated and tested in the study:

#### **Hypothesis One**

Ho1: Craftsmanship has no significant influence on poverty reduction among members of cooperative rural farmers in Anambra State.

.Ho1: Craftsmanship has significant influence on poverty reduction among members of cooperative rural farmers in Anambra State.

From table 14, the t-test value of Craftsmanship is significant. We therefore reject the null hypothesis and conclude that craftsmanship has significant influence on poverty reduction among members of cooperative rural farmers in Anambra State.

#### **Hypothesis Two**

Ho2: Paid labour has no significant influence on poverty reduction among members of cooperative rural farmers in Anambra State.

Ho2: Paid labour has significant influence on poverty reduction among members of cooperative rural farmers in Anambra State.

From table 15, the t-test value of paid labour is significant at 0.001 level of significant. We, therefore reject the null hypothesis by concluding that paid labour has significant influence on poverty reduction among members of cooperative rural farmers in Anambra State.

#### **Hypothesis Three**

H3:Trading has no significant influence on poverty reduction among members of cooperative rural farmers in Anambra State.

H3:Trading has significant influence on poverty reduction among members of cooperative rural farmers in Anambra State.

From table 16, the t-test value of Trading is significant at 0.000 level of significant. We, therefore reject the null hypothesis and by concluding that trading has significant influence on poverty reduction among members of cooperative rural farmers in Anambra State.

#### **Hypothesis Four**

Ho4: Service delivery has no significant influence poverty reduction among members of cooperative rural farmers in Anambra State.

Ho4: Service delivery has significant influence poverty reduction among members of cooperative rural farmers in Anambra State.

From table 17, the t-test value of Service delivery is not significant. We, therefore fail to reject the null hypothesis and conclude that service delivery has no significant influence poverty reduction among members of cooperative rural farmers in Anambra State.

#### **Hypothesis Five**

Ho5: Asset income has no significant influence poverty reduction among members of cooperative rural farmers in Anambra State.

Ho5: Asset income has significant influence poverty reduction among members of cooperative rural farmers in Anambra State.

**Demographic Profile of the Respondents****Table 1: Distribution of Respondents According to Gender**

Variable	Frequency	Percent (%)	Cumulative (%)
Male	97	68.3	68.3
Female	55	31.7	100
Total	142	100	

Source: Field Survey, 2021

**Table 2: Distribution of Respondents According to Age**

Variable	Frequency	Percent (%)	Cumulative (%)
18-32	11	7.7	7.7
31-40	26	18.3	26.0
41-50	45	31.7	59.7
51-60	32	22.6	82.3
Above 60	28	19.7	100.0
Total	142	100.0	

Source: Field Survey, 2021

**Table 3: Distribution of Respondents According to Educational Qualification**

Variable	Frequency	Percent (%)	Cumulative (%)
Primary	9	6.3	6.3
Secondary	79	55.6	61.9
Tertiary	54	38.1	100.0
Total	142	100.0	

Source: Field Survey, 2021

**Table 4: Distribution of Respondents According to Years of Cooperative Experience**

Variable	Frequency	Percent (%)	Cumulative (%)
1-5	18	12.7	12.7
6-10	21	14.8	27.5
11-15	58	40.8	68.3
15-30	45	31.7	100.0
Total	142	100.0	

Source: Field Survey, 2021

**Table 5: Distribution of Respondents According to Marital Status**

Variable	Frequency	Percent (%)	Cumulative (%)
Married	108	76.1	76.1
Single	27	19.0	95.1
Widow/Widower	7	4.9	100.0
Total	142	100.0	

Source: Field Survey, 2021

**Table 6: Distribution According to major occupation**

Variable	Frequency	Percent (%)	Cumulative (%)
Farming	51	35.9	35.9
Business leaders	24	16.9	52.8
Civil servant	11	7.7	60.5
Artisan	16	11.3	71.8
Trading	28	19.7	91.5
Others specify	12	8.5	100
Total	142	100.0	

Source: Field Survey, 2021

**Table 7: Distribution of Respondents According to Income of Farmers**

Variable	Frequency	Percent (%)	Cumulative (%)
N1000 - N 20,000	4	2.8	2.8
N20100 - N 40,000	32	22.5	25.3
N40,100 - N 60,000	44	31.0	56.3
N60,100 - N 80,000	41	28.9	85.2
N80,100 and above	21	14.8	100
Total	142	100.0	

Source: Field Survey, 2021

**Descriptive Statistics Result****Table 8: Effect of craftsmanship on poverty reduction among members of cooperative rural farmers in Anambra State**

Variables	N	Mean	Std Dev	Remark
I do carpentry, mason and painting job to augment income from farming	142	3.11	0.412	Accepted
I do electrical, heating and air conditioning technician job to augment income from farming	142	3.10	0.532	Accepted
I do plumbing, pipe fitter and steamfitter job to augment income from farming	142	3.04	0.243	Accepted
I do tailoring job to augment income from farming	142	3.13	0.117	Accepted
I do hair dressing job to augment income from farming	142	3.33	0.234	Accepted
I do catering job to augment income from farming	142	3.07	0.867	Accepted
Grand Mean		3.13	0.901	Accepted

Source: Field Survey, 2021

**Table 9: Influence of paid labour on poverty reduction among members of cooperative rural farmers in Anambra State**

Variables	N	Mean	Std Dev	Remark
I work for somebody in a salon	142	3.41	0.621	Accepted
I teach in a private school	142	2.47	1.082	Rejected
I work in a farm mill	142	4.43	0.072	Accepted
I work in table water company in my village	142	2.71	1.055	Rejected
I have diversified into dry cleaning and housekeeping for people live in township	142	2.54	1.066	Rejected
I work for someone in a tailoring shop	142	3.26	0.113	Accepted
Grand Mean		3.14	0.816	Accepted

Source: Field Survey, 2021

**Table 10: Influence of trading on poverty reduction among members of cooperative rural farmers in Anambra State**

Variables	N	Mean	Std Dev	Remark
I trade on food stuff	142	4.38	0.754	Accepted
I trade on clothing and textiles	142	3.40	0.011	Accepted
I trade on chemicals	142	1.79	1.022	Rejected
I trade articles	142	3.71	0.634	Accepted
I trade on building materials	142	3.15	0.044	Accepted
I have diversified into cosmetics business	142	2.55	0.658	Rejected
Grand Mean		3.12	0.854	Accepted

Source: Field Survey, 2021

**Table 11: Effect of service delivery on poverty reduction among members of cooperative rural farmers in Anambra State**

Variables	N	Mean	Std Dev	Remark
I run a Point of Sale services (POS)	142	1.40	1.867	Rejected
I do housing and estate development businesses	142	2.37	1.862	Rejected
I do online book of air ticket and visa processing	142	1.32	1.652	Rejected
I provide insurance services to car and business owners	142	1.26	1.738	Rejected
I sell things on the internet and get paid	142	2.34	1.738	Rejected
I provide financial services to people	142	2.36	1.823	Rejected
Grand Mean		1.84	1.657	Rejected

Source: Field Survey, 2021

**Table 12: Effect of asset income on poverty reduction among members of cooperative rural farmers in Anambra State**

Variables	N	Mean	Std Dev	Remark
I have commercial building for renting	142	4.78	0.754	Accepted
I collect royalties from a farmland	142	3.47	0.627	Accepted
I have investment in Stocks and securities	142	2.12	1.025	Rejected
I do Real Estate Investment Trusts business	142	2.86	1.094	Rejected
I do Small Businesses/Franchise	142	2.38	1.775	Rejected
I invest in crypto currencies and asset class mix.	142	2.93	1.060	Rejected
Grand Mean		3.09	0.834	Accepted

Source: Field Survey, 2021

**Regression Analysis Result****Table 12: Regression Result on effect of livelihood diversification on poverty reduction among members of cooperative rural farmers in Anambra State, Nigeria**

Model	B	Std. error	T	Sig.
Constant(C)	0.115	0.045	2.579	0.140
Craftsmanship	0.349	0.068	5.098	0.002
Paid Labour	0.456	0.053	8.639	0.001
Trading	0.530	0.045	11.881	0.000
Service Delivery	0.116	1.110	1.056	0.277
Asset Income	0.319	0.078	4.098	0.004
R	0.829			
R <sup>2</sup>	0.763			
Adj. R <sup>2</sup>	0.750			
F-statistic	78.001			0.000

Source: Field Survey, 2021



**Table 13: Summary of t-statistic**

Variables	t-cal (tcal)	Sig.	Conclusion
Constant(C)	2.579	0.140	Statistically Insignificant
Craftsmanship	5.098	0.002	Statistically Significant
Paid Labour	8.639	0.001	Statistically Significant
Trading	11.881	0.000	Statistically Significant
Service Delivery	1.056	0.277	Statistically Insignificant
Asset Income	4.098	0.004	Statistically Significant
F-statistic	211.301	0.000	Statistically Significant

Source: Researchers computation 2021

**Table 14: Summary of t-statistic on the effect of craftsmanship on poverty reduction among members of cooperative rural farmers in Anambra State**

Variables	t-cal (tcal)	Sig.	Conclusion
Constant(C)	2.579	0.140	Statistically Insignificant
Craftsmanship	5.098	0.002	Statistically Insignificance

Source: Researchers computation 2021

**Table 15: Summary of t-statistic on the effect of paid labour on poverty reduction among members of cooperative rural farmers in Anambra State**

Variables	t-cal (tcal)	Sig.	Conclusion
Constant(C)	2.579	0.140	Statistically Insignificant
Paid Labour	8.639	0.001	Statistically Insignificance

Source: Researchers computation 2021

**Table 16: Summary of t-statistic on the effect of trading on poverty reduction among members of cooperative rural farmers in Anambra State**

Variables	t-cal (tcal)	Sig.	Conclusion
Constant(C)	2.579	0.140	Statistically Insignificant
Trading	11.881	0.000	Statistically Significance

Source: Researchers computation 2021

**Table 17: Summary of t-statistic on the effect of service delivery on poverty reduction among members of cooperative rural farmers in Anambra State**

Variables	t-cal (tcal)	Sig.	Conclusion
Constant(C)	2.579	0.140	Statistically Insignificant
Service Delivery	1.056	0.277	Statistically Significance

Source: Researchers computation 2021

**Table 17: Summary of t-statistic on the effect of asset income on poverty reduction among members of cooperative rural farmers in Anambra State**

Variables	t-cal (tcal)	Sig.	Conclusion
Constant(C)	2.579	0.140	Statistically Insignificant
Asset Income	4.098	0.004	Statistically Significance

Source: Researchers computation 2021

From table 17, the t-test value of asset income is significant. We, therefore, reject the null hypothesis and conclude that asset income has significant influence poverty reduction among members of cooperative rural farmers in Anambra State.

## 7. Discussion of Findings

This study has investigated the effect of livelihood diversification on poverty reduction among members of cooperative rural farmers in Anambra State, Nigeria. The study concludes that four of the regression coefficient - craftsmanship, paid labour, trading and asset income - out of the five coefficients significantly influenced poverty reduction among members of cooperative rural farmers in Anambra State, Nigeria. Craftsmanship has significant influence on poverty reduction among members of cooperative rural farmers in Anambra State. This finding is corroborated by Etuk, Udofe & Okon [19] examined the determinants of livelihood diversification of farm households in Akamkpa Local Government Area, Cross River State, Nigeria using descriptive and inferential statistics. The study revealed that craftsmanship and skilled labour constitute 51.7% of livelihood diversification among the respondents

Paid labour has significant influence on poverty reduction among members of cooperative rural farmers in Anambra State. This finding is supported by Hudu, Afishata, Abujaja, and Walata [20] examined gender dimension of livelihoods diversification among the 13,580 respondents who were 15 years or older. Results of the analysis revealed significant gender differentiation in number of livelihood activities engaged in by men and women. The results also established that significantly more men than women were found to have been engaged in paid wage labour within the last 12 months, with women dominating the non-farm self-employed livelihood enterprises.

Trading as a non-farm income has significant influence on poverty reduction among members of cooperative rural farmers in Anambra State. This is in line with the findings of Adepoju and Obayelu [21] that examined the effect of livelihood diversification on the welfare of rural households in Ondo State. Using descriptive statistics, multinomial logit and the logit regression models. The study posits that income from non-farm activities, as well as income from a combination of non-farm and farming activities, impacted welfare positively relative to income from farming activities.

Service delivery has no significant influence poverty reduction among members of cooperative rural farmers in Anambra State. This finding was not corroborated by any available study in the literature investigated.

Asset income has significant influence poverty reduction among members of cooperative rural farmers in Anambra State. This supports the findings of Okere and Shittu (2013) that examined the patterns and determinants of livelihood diversification among farm households in Odeda Local Government Area, Ogun state, Nigeria. Using descriptive and logit regression method, with the level of diversification of each of the households' livelihood activities assessed using Herfindahl index. The study found that income from non-farm sources including asset income to accounted for 37.1 percent of the farm households' income and only a few (22.9%) of the farm households dependent on only one income source.

## Summary of Findings

- i. Craftsmanship has significant influence on poverty

reduction among members of cooperative rural farmers in Anambra State.

- ii. Paid labour has significant influence on poverty reduction among members of cooperative rural farmers in Anambra State.

- iii. Trading has significant influence on poverty reduction among members of cooperative rural farmers in Anambra State.

- iv. Service delivery has no significant influence poverty reduction among members of cooperative rural farmers in Anambra State.

- v. Asset income has significant influence poverty reduction among members of cooperative rural farmers in Anambra State

## Recommendations

Based on the findings of this study, the following recommendations are made:

1. Cooperative societies should educate members on livelihood diversification craft engagements to help lift their members from poverty.

2. Cooperative societies should train members on skills that will enable them seek rewarding paid labour as a means of diversifying their livelihood strategies..

3. The societies should help members obtain adequate affordable credit to go into meaningful trading. This is because trade was found to significantly reduce poverty among members of cooperative rural farmers in Anambra State.

4. Members of cooperative should consider going into service delivery business like financial services which is a trending business today.

5. Apart from commercial building for renting and receiving royalty from farm land, members of cooperative should consider investment in Stocks and securities, real estate, franchise and crypto businesses.

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