International Conference on Sciences, Engineering & Environmental Technology (ICONSEET), 7(12): 96– 103, 2022

ISSN 0794-9650

www.repcomseet.org

MEASURING NIGERIAN EXPENDITURE AND INCOME AS AN INDICATOR OF POVERTY

[1]OLAWALE, A.O, [1]OLALUDE, G.A. [2]AKINTUNDE, M.O., [1]AJALA, A. G. [2]RASHEED, S. L. and [1]AMUSAN, A.S.

[1]Department of Statistics, Federal Polytechnic, Ede, Osun State
[2]Department of Statistics, Federal Polytechnic Ayede, Oyo State

Email of the Corresponding Author: waleakintunde2004@gmail.com

Abstract: Alleviating poverty in the developing world or developing economy remains a topical issues as African accounts for almost half of the human population. From the literature it is crystally clear that over three-quarter of Nigerian population are wallowing in abject poverty. This study therefore, critically examines the role of expenditure and income as an indicator of poverty measurement. Primary data was used for the study. The population for the study is Akinyele Local Government area of Oyo State. Well-designed Questionnaire were used to obtain response from 200 staff of this local Government. As stated, a total of 200 respondents made up of various heads od departments, administrative officers, accountants and junior staff were interviewed for the study. The data collected were analysed using Statistical Packages for Social Sciences. The analysis shows that the model has R^2 value of 0.853, with adjusted $\bar{R}^2$ of 0.728. The result shows that income explains about 73% of the variation in expenditure while 72.2% of the variation in expenditure were explained by other factors. This pointed to the fact that the poverty in the country is as a result of insufficient income generated by household so also the result reveals that the amount spent on expenditure is far greater than the received income thereby encouraging poor standard of living and pointer to poverty. The model for the study has predictive power of up to 72%, this could be used for both Local, National and International Economic formulations and policy analysis.

Keywords: Expenditure, Income, Poverty, indicator and Questionnaire

1.0 INTRODUCTION

World Poverty Clock compiled by Brookings Institute, indicated that close to 700 million people global wise live in abject poverty, very sad enough close to 70% of this number is from Africa (Adebayo, 2018). The world poverty data as collected in 2018 revealed top 10 African countries with the largest number of people living in extreme poverty with Nigeria leading by (86.9 million) people, followed by Democratic Republic of Congo (60.9 million), Tanzania (19.9 million), Mozambique (17.8 million), Kenya (14.7 million), include: Zambia (9.5 million), Uganda (14.2 million), South Africa (13.8 million), South Sudan (11.4 million) and Zambia (9.5 million) all wallowing in abject poverty (Kazeem, 2018). The implication of this to one time giant of Africa is that almost half of it population are living below poverty line. As a matter of fact, we have surpassed Indian in poverty rating. (Adebayo, 2018). Anderson, et.al, 2018 opined that to overcome this problem there is the need to balance population growth with optimum distributional adjustments.

There is no gainsaying in the fact that one of the goals of Millennium Development Goals (MDG) worldwide was to totally eradicate or at least reduce the poverty to the barest minimum in the whole world. Very unfortunate the reverse is the case in Nigeria as more that 80 percent of its population are living below poverty line. The United Nations Department of Economics and Social Affairs (UNDESA, 2015) in its report elucidated that I billion people or thereabout global wise have being moved out of poverty. Concerted efforts are made by successive governments in line with MDG's goal to reduce the poverty in Nigeria, but very sad Nigeria was pronounced as the world headquarters of extreme poverty

2.0 LITERATURE REVIEW

(Atiku, 2018). Sanusi (2018), opined that it is very unfortunate that the richest man in Africa is from Nigeria but yet a one-time giant of Africa is declared the poverty capital of the whole world. The inequality is so pronounced between the haves and haves not such that the difference is unimaginable and there is complete breakdown of infrastructural development. Ogboru, et.al. (2018); Omodero & Dandago, 2019 sees any cost incurred in the areas of making goods and services available for its citizenry as Government expenditure, the implication of this is that in the annual budget, it is a public spending that reveals how much will be expended and how the income will be generated from several ways which include but not limited to taxation, fines, rent and other sources. The foundation of any business is a measure of Income and expenditures. Since the economy of any nation is sum total of its citizen economy. This study is an invaluable effort to uncover how the expenditure and income of it citizen impact either negatively or positively on the citizen wellbeing. Adelowokan, & Osoba, (2015 opined that majority of Nigerian live below poverty line of less than one dollar daily. Knowing this fact should be related should be related to pattern of their spending. The knowledge of expenditure and income actually permits the companies, economist or families to have a sound financial information or data in a concise way with utmost aim of reducing poverty level in Nigeria. Asadullah & Savoia (2018) sees income as cash or an equivalent that emanates from wages or salaries, rent from land or a building or interest, dividends or profit from an investment. While on the other hand expenditure refers to cash or its equivalent paid in exchange for goods and services.

3.0 THEORETICAL BACKGROUND AND METHODOLOGY

The study used carefully designed questionnaire to elicit response from would be respondent. In all 200 questionnaires were administered to the various categories of workers in Akinyele local Government area of Oyo State. The study made use of descriptive research survey this bcomes imperative as a result of its merits in locating the attributes of a large population.

Research Design

The study employed both the simple percentage and econometric approach of ordinary least squares (OLS) vis-a- vis multiple linear regression. This is because the study is an empirical both quantitative and analytical in nature, this is because both the dependent and independent variables are measure over time for the existence of variation that may arise from time to time.

Types and Sources of Data used for the study

The data for the study was obtained using a carefully designed questionnaire administered to the staff of Akinyele Local Government of Oyo State. In all 200 respondents were interviewed scatter round all the departments and units in the local Government

Model Specification

The relationship between Poverty, expenditure and income was connected using the simple multiple linear equation below:

$$P = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \varepsilon$$

Where, $P =$ *Poverty* $\beta_0 = Constant$

β_1 and β_2 are estimated regression coefficient $\varepsilon = error$ term : $\mathrm{N}(0,1)$

On the a priori, our expectation is that $\beta_1 > 0$ and $\beta_2 > 0$

4.0 DATA PRESENTATION AND ANALYSIS

The data for the study was analyzed using Statistical packages for social Sciences and the results obtained are as presented below:

Descriptive Statistics

Table 1 Response rate of the administered questionnaire

Number of Questionnaires administered	Number of returned questionnaires	Number of unreturned questionnaires
200	184	16
100%	92%	8%

Source: Field survey, 2022

Table 1 above shows that 200 questionnaires were administered, out of which 184 (92%) were returned, while 16 (8%) were not returned. This might due to absence of the respondents from their various offices, sickness or loss or misplacement of the questionnaire by the respondents. However, 92%, is a very excellent return.

Table 2 Socio-demographical data of respondents

Variables	Items	Frequency (%)
	Male	112 (60.9)
Sex	Female	72 (39.1)
	Total	184 (100.0)
	29 years and below	8 (4.3)
Age	30 – 39 years	20 (10.9)
	40 – 49 years	104 (56.5)
	50 years and above	54 (28.3)
	Total	184 (100.0)
	Single	36 (19.6)
Marital status	Married	148 (80.4)
	Total	184 (100.0)
		64 (34.8)
Religion	Islam	
	Christianity	120 (65.2)
	Total	184 (100.0)
	Pry/Sec	4 (2.2)
	NCE/Certificate/Diploma	80 (43.5)
	B.Sc. degree	72 (39.1)

Educational	Masters' degree	20 (10.9)
Qualification	PhD	8 (4.3)
	Total	184 (100)
	Less than 1 year	28 (15.2)
	1 – 5 years	112 (60.9)
Years of work Experience	6 – 10 years	28 (15.2)
	11 years and above	16 (8.7)
	Total	184 (100)
	Rich	28 (15.2)
Household Status	Poor	164 (84.8)
	Total	184 (100)

Source: Field survey, 2022

Table 2 above shows that out of 184 respondents who participated in the survey, 112 (60.9%) were male, while 72 (39.1%) were female. The implication of this is that the studied population is a male dominated study. In relation to the respondents' age 8 (4.3%) are of age 29 years or below, 20 (10.9%) aged between 30 – 39 years, 104 (56.5%) aged between 40 – 49 years, and 52 (28.35%) aged between 50 years and above. The implication of this is that the work force of this studied area are made up of experienced men and women. For the marital status of the respondents, these results show that that the population is dominated by married men and women which accounted for 148 (80.4%) while the single population was 36 (19.6%). On the side of Religion 64 (34.8) were Muslims while were Christians. 120 (65.2%). The population is heavily populated by those who are well read as over 95% had between School Certificates and Ph.D, while less than 3% had primary school certificate. On the on-job experience respondents who have stayed for five years and above accounted for more than 75% of work force while less than 25% accounted for less than five years in service.

Table 3 Information on Household size, Monthly Income and Expenditure

Variable	Average	SD
HH Income	66,500	11.2
HH Expenditure	68,750	18790
HH Size	5	3

Source: Field survey, 2022

The result in table 3 above shows that the average income of households in the area is ₦66,500 with a standard deviation of 11.2 while the expenditure is ₦68,750 with a standard deviation of 18.79. The implication of this is that the income is less than expenditure there by creating debt burden for them. The consequent of which is poverty in the area.

Table 4 Determinants of poverty rate in the country

Item	SA (%)	A (%)	D (%)	SD (%)	Mean	Remark
Level of income of an individual determine if he/she will be poor or not	44 (47.8)	46 (50)	2 (2.2)	0 (0)	3.46	Accepted

Saving habit and empowerment will reduce the rate of poverty in the country	30 (32.6)	48 (52.2)	14 (15.2)	0 (0)	3.17	Accepted
Income and expenditure of the country determines the poverty rate of her citizen	30 (32.6)	1. 34 2. (37)	3. 20 4. (21.7)	5. 8 6. (8.7)	7. 2.93	8. Accepted
Corruption and embezzlement of funds is the major determinant of poverty in the country	9. 32 10. (34.8)	11. 40 12. (43.5)	13. 16 14. (17.4)	15. 4 16. (4.3)	17. 3.09	18. Accepted

Source: Field survey, 2022

The results in table 4 above shows that all items have mean value greater than 2.50, and are therefore, accepted. This result indicates that the Level of income of an individual determine if he/she will be poor or not, income and expenditure of the country determines the poverty rate of her citizen, and saving habit and empowerment will reduce the rate of poverty in the country.

Test of Hypotheses

The research hypotheses formulated to guide this study were tested as follows:

Hypothesis one

H_0: There is no significant relationship between Income and Expenditure

H_1: There is significant relationship between Income and Expenditure

Table 5: Correlation analysis of relationship between Income and expenditure

		Capital_ expenditure	Income
Capital expenditure	Pearson Correlation	1	.853**
	Sig. (2-tailed)		.000
	N	38	38
Income	Pearson Correlation	.853**	1
	Sig. (2-tailed)	.000	
	N	38	38

**. Correlation is significant at the 0.01 level (2-tailed).

Source: Field survey, 2022

The result in table 5 above shows that the Pearson correlation coefficient for income and capital expenditure is 0.853 with p value 0.000. The null hypothesis was rejected This result indicates that there is a significant high positive relationship between income and expenditure. The positive relationship shows that unproductive expenditures of households have affected poverty in a positive manner. Also, the result shows that an increase in capital expenditure increase the incidence of poverty during the period under study. The relationship was not significant at the 1 percent level.

Hypothesis two

H_0: There is no significant effect of income on expenditure

H_1: There is significant effect of income on expenditure

Table 6 Regression analysis of Expenditure on Income

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	180.458	45.417		3.973	.000
Income	.083	.008	.853	9.818	.000

Source: Field survey, 2022

Table 7 ANOVA table for the regression analysis

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	5260180.213	1	5260180.213	96.391	.000
Residual	1964557.956	36	54571.054		
Total	7224738.169	37			

Source: Field survey, 2019

The result in table 6 above shows that the income has a t value of 9.818 with p value 0.000. This result indicates that income has a significant effect on expenditure. Table 7 shows that the test has a F value of 96.391 with p value 0.000. The null hypothesis was rejected. This indicates that the overall regression model is significant. The result shows that the expenditure of household is highly determined by the income of that household.

Model Diagnostic

The model was diagnosed to ascertain the goodness of fit of the model and to know the behaviour of the independent variable.

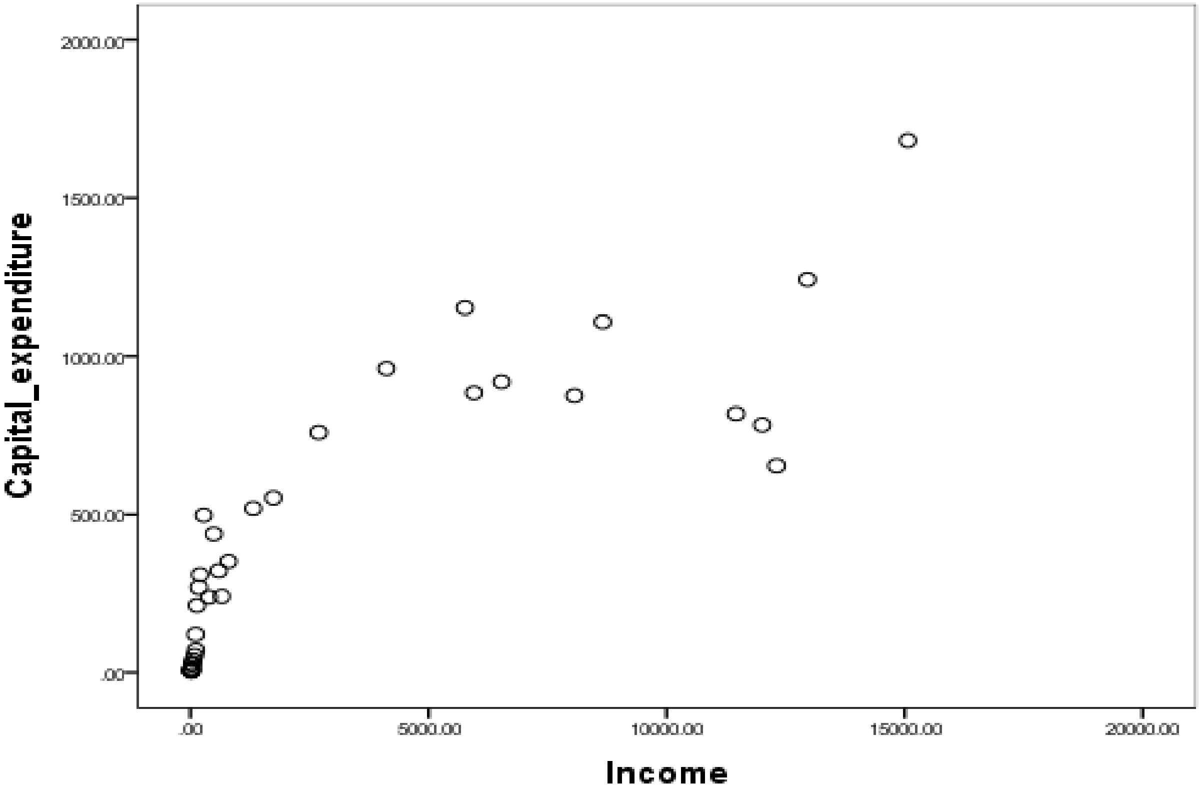

Figure 1: Scatter Diagram of Income against expenditure

Figure 4.1 shows that there is a positive relationship between income and expenditure.

Table 8 Diagnostic measures

R	R Square	Adjusted R Square	Residual Sum of Square	Std. Error of the Estimate
.853	.728	.721	1964557.956	233.60448

Source: Field survey, 2022

Table 4.8 shows that the model has a R value of 0.853, R square value of 0.728, adjusted R squared value of 0.721. The result shows that income explains about 73% of the variation in expenditure whereby the remaining

27.2% of the variation in expenditure were explain by other factors. This result explains that poverty in the country is as a result of insufficient income generated by households. The result shows that the amount spent on expenditure is greater than that of income. The model has 72% predictive ability.

5.0 Conclusion and Recommendations

5.1 Conclusion

This study has that poverty is not just the result of insufficient expenditure as traditionally believed but it is a multiplier of other factors (social, economic and political factors). On this note government need to budget for agriculture, education and health sectors as well as for building and construction. The duo concept of government spending and endogenous growth theory jointly show that public expenditure on education, health services, innovations in agriculture and other technologies help economic growth and poverty alleviation in every given economy.

5.2 Recommendations

♣ Government of Nigeria (Local, States and Central) need to embark on project that will end or at least reduce poverty to the barest minimum by making infrastructures available to the rural dwellers, this will in no small way boost agriculture and raise the country per capital income.

♣ Provision of adequate road transportation (bridges, roads, railways) markets and buildings will in no small way reduce poverty and improving business activities of the dwellers, this will also will help to alleviate poverty in Nigeria. Good roads enhance the smooth running enable agricultural product to be moved easily to the markets.

♣The CBN and other financial institutions should make fund available to the local agricultural practitioners at interest friendly level, if this is done poverty reduction will be achieved.

♣ Provision of health facilities are recommended for the rural dwellers this will in no way assist in their wellbeing and improved their productivities. The government should also liaise with non-governmental organizations whose objectives are to improve the conditions of the poor in the rural areas.

6.0 References

Adebayo, B. (2018). Nigeria overtakes India in extreme poverty ranking. CNN. Retrieved March 27, 2019, from https://edition.cnn.com/2018/06/26/africa/nigeria-overtakes-india-extreme-poverty-intl/index.html

Adelowokan, O.A., & Osoba, A.M. (2015). Oil revenue, government expenditure and poverty rate in Nigeria. Global Journal of Management and Business Research: B Economics and Commerce, 15(10), 11-20.

Anderson, E., D'Orey, M.A.J., Duvendack, M., & Esposito, L. (2018). Does government spending Affect income poverty? A meta-regression analysis. World Development, 103(2018), 60-71. https://doi.org/10.1016/j.worlddev.2017.10.006

Asadullah, M.N., & Savoia, A. (2018). Poverty reduction during 1990-2013: Did millennium Development goals adoption and state capacity matter?. World Development, 105(2018), 70-82. https://doi.org/10.1016/j.worlddev.2017.12.010

Atiku/ Business Dictionary. (2018). What is health care?. Retrieved November 22, 2018, from www.businessdictionary.com.

Kazeem, Y. (2018). Nigeria has become the poverty capital of the world. Quartz Africa. Retrieved March 27, 2019, from https://qz.com/africa/1313380/nigerias-has-the-highest-rate-of-extreme-poverty-globally/

Ogboru, I., Abdulmalik, F.A., & Park, I.O. (2018). Government expenditure on agriculture and its Impact on unemployment reduction in Nigeria: 1999-2015. International Journal of Economics, Commerce and Management, 6(3), 1-25.

Omodero, C.O., & Dandago, K.I. (2019). Tax revenue and public service delivery: Evidence From Nigeria. International Journal of Financial Research, 10(2), 82-91. https://doi.org/10.5430/ijfr.v10n2p82

UNDESA. (2015). The millennium development goals report 2015. New York: United Nations. Retrieved March 28, 2019, from http://www.un.org/millenniumgoals/reports.shtml

Sanusi, L. (2018). Nigeria is world's poverty headquarters, says Sanusi. The Nation. Retrieved March 27, 2019, from http://thenationonlineng.net/nigeria-worlds-poverty-headquarters-says-sanusi/