Comparative Assessment of Poverty Measures: Recent Evidences from Nigeria Household Data

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Abstract: - There has been a surge in research interest on effective measurement of household poverty as seen in the different approaches being adopted. In this vein, this study contrasts unidimensional and multidimensional measures of poverty using data from 2015-2016 General Household Survey (GHS)conducted by the National Bureau of Statistics (NBS). The results of Foster-Greer-Thorbecke (FGT) (unidimensional) and Alkire and Foster (multidimensional) measures showed respective analogous poverty headcounts of 55% and 57%. Also, approximately 31.94% and 68.2% of the poor population (unidimensional) and 85.40% and 14.60% (multidimensional) reside in urban and rural areas, respectively. Moreover, both measures showed contributions of 81% and 19% to overall poverty for married and non-married household heads, respectively and the male-headed households contributed higher percentage to poverty than the female-headed households in both cases. With the exception of location dimension, both measures showed similar results. Thus, for a detailed analysis, using both measures might be necessary in defining the poor and identifying target programmes to aid poverty alleviation.

Keywords: Poverty headcount, Multidimensional Poverty Index, Expenditure.

JEL code: D30, D60, I32

I. INTRODUCTION

Poverty is a composite phenomenon which has been examined by many economists and development experts in several dimensions. Though efforts have been made to achieve public consensus in poverty definition, there has not been a specific and general accepted definition of poverty due to its multi-faceted nature (Megbowon, 2018). The World Bank (2016) defined poverty as the inability to live up to a particular set standard of a society. The standard set by the World Bank is that a household that is unable to live up to poverty line of $1.90 per day is classified as poor. In another perspective, Abdul-Mumin and Shamshiry (2014) defined poverty as a diversity of deprivations a person or household experiences simultaneously or separately which stifles abilities to function, live a life of purpose and fulfillment and be productive in the society. These deprivations could be economic, social, political, cultural, physical or spiritual. From these definitions and various perspectives, poverty can be viewed as a phenomenon which transcends income and consumption standards to include state of wellbeing (Megbowon, 2018).

Poverty eradication is one of the greatest challenges faced by policy makers around the world, especially in developing countries. Ending all forms of poverty by 2030 is one of the vital goals of the Sustainable Development Goal (SDG), thus placing the fight against poverty as one of the critical components of development in any country, and Nigeria is not an exception. In order to achieve this laudable goal, poverty alleviation programmes were instituted by government at various levels. Poverty alleviation programmes in Nigeria are extremely important as they are aimed at improving the economic and social conditions of the vulnerable individuals in the population. For instance, in 2016 the Federal government committed₦500 billion to the National Social Investment Programmes (NSIP) to create a safety net to incrementally improve capacity of citizens and put money in the hands of the poorest. Trader Moni and N-Power Schemes were launched in 2016, the former being a micro-credit scheme aimed at the empowering two million petty traders while the latter was aimed at employing 500,000 graduates across the country (NSIP, 2018). Other similar programmes have also been launched in the past.

Despite these laudable programmes, deterioration in poverty situation in Nigeria is still being reported. According to United Nations, Nigeria ranked 152nd in terms of living standards out of the 188 United Nations member states in the Human Development Index (HDI) and in 2018, Nigeria overtook India as the country with the largest number of extremely-poor people in the world (UNDP, 2016; World Bank, 2018). This calls for revamping of the nation's poverty reduction strategies. Poverty reduction is one of the goals of economic development, and defining and measuring poverty are important prerequisites for such exercise (Nasri and Belhadj, 2017). Focal Poverty is measured from different fronts, each with its own merits and challenges. Income or expenditure approach to measuring poverty can be a misleading indicator of economic status of family because earnings are susceptible to fluctuations due to transitory events, in addition to difficulties in collecting appropriate data on income and expenditure (Posel and Rogan, 2014). Measurement errors in consumption expenditure arise not just as a result of the intrinsic difficulty of calculating consumption quantities and prices, but also from the recall error that induces a downward bias in the estimation (Dinkelman, 2004). In panel datasets, such measurement errors are mostly problematic since the values are

miscalculated in every round of survey (Baulch and Hoddinott, 2000). Similarly, Gibson (2016) noted that neither consumption nor income corresponds to utility as it does not provide justification for maximizing either happiness or life satisfaction.

Meanwhile, the use of non-monetary approach of subjective measure has also been criticized. Jansen *et al*. (2015) observed that subjective indicators might be less expedient for practical policy and targeting purposes as people may project themselves as poor only because they are not satisfied with their lives. This is challenging especially when targeting the public for welfare programmes. Subjective measure could also present false information because the relative position of household is a strong determinant of subjective poverty. For example, households are less likely to perceive themselves as poor if they have some kind of employment even if they remain in abject poverty (Alem*et al.,* 2014). One way to overcome these problems is to employ multidimensional poverty indices to study the multi-faceted nature of poverty (Santos and Alkire, 2015).

Several methodologies such as dashboard approach, composite indices approach, Venn diagrams, dominance approach, statistical approaches, fuzzy sets and the axiomatic approaches are employed in the assessment of poverty from multidimensional perspective. However, the Alkire and Foster approach of multidimensional poverty measures has many advantages such as its ability of helping to know the level of contribution of each indicator/dimension to overall poverty (Santos and Alkire, 2015). It also allows poverty comparisons across countries and regions of the world, as well as within-country comparisons across regions, ethnic groups, locations, and other key household and community characteristics (Santos and Alkire, 2015). Despite the numerous advantages of Alkire and Foster measures of multidimensional poverty, the approach is characterized with quite a lot of disputable underline assumptions that have profound ethical implications. First is the arbitrarily choice of individual to choose the poverty cut off level in order to consider an individual as being poor. Also, the deprivations are liberally interchangeable provided they sum up to the poverty cutoff level, that is; if the cutoff is set at say two, it is indifferent to be deprived in dimensions 'q' and 'p' than being deprived in dimensions 'y' and 'z'. While this counting approach is reflective of the current state of the literature, it looks excessively simplistic as it just counts the number of deprivations regardless of their nature. In addition, the different dimensions have to be weighted according to the importance that is attached to them. But unfortunately, there are no clear rules in literature on how to choose the most appropriate poverty cutoff levels and the choice of alternative weighting schemes may alter conclusions with respect to the poverty rankings of the populations being analyzed (Permanyer and Hussain, 2018).Accordingly, studies that employ different indicators to measure poverty and subsequently compare it with consumption or monetary measures have emerged (Costa, 2003; Tilman and Sindu, 2013).

Stewart *et al.* (2007) found that 53% of the malnourished Indian children in their study did not live in income-poor households and that 53% of the children living in income-poor households were not malnourished. Also, Laderchi *et al.* (2003) found that there is significant lack of overlap between the different methods of poverty measures, for example, about half the Indian or Peruvian population identified as being poor using monetary measure were not identified as having capability poverty. In a study conducted by Davis and Baulch (2011) to examined how poverty dynamics and multidimensional poverty measures interacted, the study found that while expenditure-based measures of poverty are common, the weaknesses of these measures are magnified in studies of poverty dynamics. The study found that adding asset-based measures improves the assessment of poverty transition and dynamics, hence supporting the argument that expenditure-based measures should be complemented by asset measures in poverty dynamics. However, studies comparing dynamic context different measures of poverty are scarce, particularly in developing countries.

Dunga (2017) investigated income at household level from gender and marital status perspective, using household income as the main indicator in establishing poverty thresholds. It was found that on average, female-headed households had lower incomes compared to male-headed households, and the married heads of households had higher incomes compared to the single, divorced and widowed. To some extent, income rise enables households to better reach their basic needs in the assumption of presence of markets for all basic needs. However, this does not always exist and given the weak relation between income and welfare, it is inadequate to look only at unidimensional indices to measure the extent of poverty. This provoked a theoretical debate and led to the adoption of a more general and multidimensional estimate of poverty (Duclos *et al*., 2006).

Majority of poverty research in Nigeria have focused on single-dimensioned perspective, using solely the monetary or non-monetary subjective concepts (Anyanwu, 2013; Heshmati and Rashidghalam, 2018).This study contributes to the existing literature on poverty by comparing the single dimensional measures of poverty and the multidimensional measures using the consumption expenditure approach proposed by Foster-Greer-Thorbecke and the adjusted class of poverty measures proposed by Alkire and Foster (2011), respectively. Most studies on poverty in developing countries make use of consumption rather than income in estimating poverty as consumption is argued to be a superior indicator of long-term average well-being since it shows what is consumed instead of ability to purchase as in the case of income (Bigsten *et al.,*2003).Also, the Multidimensional Poverty Index (MPI) is a powerful tool for examining global poverty and communicating useful facts. Not only does it allow us to understand how different countries are faring in

their fight against poverty, but it helps us to better understand who the poor are, where they are and the many different ways in which they experience poverty (Alkire and Santos, 2010).

II. MATERIALS AND METHODS

2.1 Data and descriptive statistics

This study used data of 4,136 households from the 2015 Nigerian General Household Survey (GHS) conducted by the National Bureau of Statistics (NBS). The survey adopted a multi-stage stratified sampling procedure to select primary sampling units and dwelling units. Data were obtained on demographic characteristics of individuals and households, education, health, access to public assets, ownership of private assets, food and non-food expenditure, market participation and household livelihood characteristics among others.

Table 1 shows the summary statistics of the data employed for this study. The table reveals that the age of respondents ranges between 18years and 103years with a mean age of 55years, while household size ranges between 1 and 35 with an average household size of 7 persons per household.

Table1: Summary statistics of the respondents

Statistics	Age	Household size
Min.	18	1
Max.	103	35
Mean	53.46	6.98
Standard Deviation	(14.44)	(3.50)
No. of obs.	4136	4136

Source: General Household Survey, 2015.

2.2 Analytical models

2.2.1 Consumption poverty measure

The Foster-Greer-Thorbecke Index (FGT) is a common and frequently used consumption measure of poverty. It consists of the most desirable properties of a poverty index, such as sub-group consistency and decomposition. The FGT index is expressed as:

$$P_\beta = \frac{1}{n}\sum_{i}^{q}\left(\frac{Z-Y_i}{Z}\right)\alpha, \quad \alpha \geq 0 \; for \; Y < Z$$

... (1)

Where;

P_β is the measure of poverty, z is the poverty line, *n* is the total population, *q* is total number of poor households, and *Y* is the total consumption expenditure. The poverty index, P_β changes when β takes different values. For instance, when β is 0, 1, and 2, P_β equals the head count index (P_0), the poverty gap index (P_1), and the poverty severity measure (P_2), respectively.

Consumption aggregates are estimated by adding up of food and non-food consumption expenditures. Food consumption is the total summation of all food items consumed in the previous week, including purchased (both raw and prepared food), from own stock, food-for-work in kind payments and gifts scaled to a month by multiplying by 4.28 (Dercon and Hoddinott, 2004).These consumption estimates are calculated by using prices acquired from local markets during the household surveys. Non-food consumption includes direct consumables such as soap, clothes, matches and linen. Expenditures on durable and non-durable goods, extraordinary contributions, school, taxes and health were excluded due to heterogeneity in responses in terms of these expenditures. Total consumption expenditure is then estimated as the sum of food and non-food consumption, which when divided by household size, gives the consumption per capita expenditure. A poverty line calculated using consumption per capita expenditure is employed to identify households as poor and non-poor. The relative poverty line is defined as two-third of the mean total per capita expenditure (Dercon *et al.,* 2005).

2.2.2 Multidimensional poverty measures

Multidimensional Poverty Index (MPI) was developed by Alkire and Santos (2010) for the 2010 Human Development Report. Ten (10) variables were chosen for the MPI under the same three headings—health, education and living standards—as the UNDP's Human Development Index (HDI). The basic idea of this index is that well-being of an individual not just depends on income or consumption, but also depends on several other dimensions or capabilities such as standard of living, health, and education. There are six variables for standards of living (drinking water, cooking fuel, sanitation, housing, electricity, and asset),two variables for health (child mortality and malnutrition) and two for education (school enrolment and years of schooling) Poverty is measured separately in each of these ten dimensions. A household is identified as being poor if it is deprived across at least 30% of the weighted indicators. The multi-dimensional poverty measure is more expected to be a better estimate of long-term poverty, whereby variables such as literacy or tangible assets are much more realistic methods of poverty estimation (United Nations Development Programme, 2010).

Table 2: MPI dimensions, indicators, deprivation cutoffs and weights

Dimensions of Poverty	Indicator	Deprived if living in the household where…	Weight
Health	Nutrition	An adult under 70 years of age or a child is undernourished.	1/6
	Child mortality	Any child has died in the family in the five-year period preceding the survey.	1/6
Education	Years of schooling	No household member aged 10 years or older has completed six years of schooling.	1/6

	Child enrollments	Any school-aged child is not attending school up to the age at which he/she would complete class 8.	1/6
Standard of living	Cooking fuel	The household cooks with dung, wood, charcoal or coal.	1/18
	Sanitation	The household's sanitation facility is not improved (according to SDG guidelines) or it is improved but shared with other households.	1/18
	Drinking water	The household does not have access to improved drinking water (according to SDG guidelines) or safe drinking water is at least a 30-minute walk from home, round trip.	1/18
	Electricity	The household has no electricity.	1/18
	Housing	Housing materials for at least one of roof, walls and floor are inadequate: the floor is of natural materials and/or the roof and/or walls are of natural or rudimentary materials.	1/18
	Assets	The household does not own more than one of these assets: radio, TV, telephone, computer, animal cart, bicycle, motorbike or refrigerator, and does not own a car or truck.	1/18

Source: Adapted from Alkire*etal*. (2014).

In counting identification methods, the criterion for identifying the poor can range from 'union' to 'intersection'. In the 'union' approach, an individual is be categorized as 'poor' if s/he is deprived in at least one dimension. On the other hand, the 'intersection' approach posits that an individual is 'poor' if s/he is deprived in all dimensions simultaneously. This approach misses people who are experiencing extensive, but not universal deprivation. Since these two extreme approaches are likely to overestimate and under-estimate respectively the set of people that should be characterized as poor. However, Alkire and Foster (2011) proposed an alternative and plausible approach that uses an intermediate cutoff level which lies between these two extremes which was employed for this study.

According to Alkire and Foster (2011), an individual is considered as deprived if the number of dimensions in which the person is deprived is at least above some minimum cutoff number of dimensions (*k*). When the number of deprived dimensions drops below the cutoff *k*, then the person is not considered poor. This method of identification is termed the *dual cutoff* since it depends on both the within dimension cutoffs to determine whether a person is deprived in that dimension and across dimension cutoffs to identify the poor by 'counting' the dimensions in which a person is deprived. The deprivation score of each person is calculated by taking a weighted sum of the number of deprivations, so that the deprivation score for each person lies between 0 and 1. The score increases as the number of deprivations of the person increases and reaches its maximum of 1 when the person is deprived in all component indicators. A person, who is not deprived in any indicator receives a score equal to 0. It is expressed as:

$$C = W_1 I_1 + W_2 I_2 + \ldots + W_j I_j$$
... (2)

Where $I_i = 1$ if the person is deprived in indicator *i* and 0 otherwise, and W_i is the weight attached to indicator *i* with,

$$\sum W_i I_i = 1$$
... (3)

Poverty cut-off is defined as the share of (weighted) deprivations a person must have in order to be considered poor, and is denoted with *k*. Someone is considered poor if the deprivation score is equal or greater than the poverty cut-offi.e if $C_i \geq K$.

In the MPI, poverty is identified by a deprivation score higher than or equal to 1/3. In other words, a person's deprivation must be not less than a third of the (weighted) considered indicators to be considered poor. Deprivation score below the poverty cut-off (even if negative) is replaced by '0' which is referred to as censoring. The notation $C_i(k)$ is used for the censored deprivation score to differentiate between it and the original score. It should be noted that when $C_i \geq K$, then $C_i(k) = C_i$ but if $C_i < K$ then $C_i(k) = 0$. $C_i(k)$ is the deprivation score of the poor.

The proportion or incidence of people within a given population who experiences multiple deprivations is called the multidimensional headcount ratio (H) and is given as:

$$H = \frac{q}{n}$$
... (4)

Where *q* is the number of people who are multidimensionally poor and *n* is the total population. The second component is the intensity of poverty (A). It is the average deprivation score of the multidimensionally poor people and can be expressed as:

$$A = \frac{\sum C_i(K)}{q}$$
.... (5)

Where $C_i(k)$ is the censored deprivation score of individual *i* and *q* is the number of people who are multidimensionally poor.

The MPI is the product of (4) and (5):

$$MPI = H \times A$$
... (6)

IV. RESULTS AND DISCUSSIONS

4.1 Socio-economic characteristics of the households

The socio-economic distribution of household heads by marital status, gender and age is presented in Table 3. The results show that 8 out of every 10 household heads are married while others are separated, widowed, never married, informal union or divorced. Also, approximately 8 out of every 10 households are male-headed while the remaining 2 are female-headed. In addition, the minimum, maximum and mean age of the household head is 18years, 103years and 53years, respectively. Also, larger proportion (75%) of the household heads are below 65 years of age implying that majority of the respondents are still at their active working age. Large household size tends to reduce per capita expenditure, hence increasing likelihood of being poor. Table 1 also shows that about 8 out of every 10 household has household size between 1 and 10 while household size above 10 persons is characterized with an average of 2 out of every 10 households. In addition, 39.79% and 68.21% of the population resides in the rural and urban areas, respectively.

Table 3: Socio-economic characteristics of the households

Variable	Frequency	Percent
Marital status		
Married	3,350	81.00
Otherwise	786	19.00
Gender		
Male	3,520	85.11
Female	616	14.89
Age		
18-39	685	16.56
40-64	2,418	58.46
65 and above	1,033	24.98
Household size		
1-10	3,288	79.50
11-20	824	19.92
Above 20	24	0.58
Location		
Urban	1,315	31.79
Rural	2,821	68.21

Data source: General Household Survey, 2015.

4.2 Unidimensional and multidimensional poverty estimates

Several indices were calculated in both unidimensional and multidimensional poverty contexts as shown in Table 4. The headcount index for the unidimensional poverty measurement revealed that about 5 out of every 10 households are living below the poverty line of ₦4949. This finding is in agreement with Heshmati and Rashidghalam (2018) who found that 33% of the population in Rwanda were relatively poor. Contrasting the above result with the multidimensional estimates shows that about 6 out of every 10 households are poor and are on the average deprived in about 46.0% in either all the indicators of a single dimension or combination across dimensions. When the percentage of people living in poverty (56.8%) is adjusted by the intensity of deprivation (46.0%), it gives an adjusted headcount ratio of 26.3%. This implies that about 1 out of every 4 households is in acute poverty. This finding is also in agreement with Tilman and Sindu (2013) who found that multidimensional and consumption expenditure measures of poverty assigned similar (48%-57%) household poverty status but different trend in the adjusted poverty headcount. Also, on the average, living standard contributed the highest deprivation to the dimensions. Living standards accounts for about 46.0% deprivation experienced by the households as found out in the work of Megbowon (2018) that living standard dimension was the largest contributor to MPI in urban and rural households in South Africa.

Table 4: Estimates for the unidimensional and multidimensional poverty indices

Unidimensional	Estimate
Poverty count	0.5488 (0.008)
Poverty gap	0.2558 (0.004)
Poverty severity	0.1503 (0.003)
Multidimensional	**Estimates**
Headcount	0.568
Poverty intensity	0.463
Adjusted headcount (MPI)	0.263
Indicators	
Living standard dimension	**0.461**
Water	2.30
Flooring	5.50
Cooking	11.20
Electricity	8.40
Asset	11.70
Sanitation	7.00
Health dimension	**0.264**
Nutrition	23.30
Child mortality	3.00
Education dimension	**0.275**
Years of schooling	0.90
Child enrollment	26.60

Standard errors are in parentheses

4.3 Decomposition of household poverty headcount by gender

Table 5 shows the decomposition of the unidimensional and multidimensional poverty head count of households by gender. The result of the unidimensional measure revealed that about 6 out of every 10 male-headed households are living below poverty line of ₦4949 per month and about 4 out of every 10 female-headed are in the same situation. However, the result for multidimensional index showed that about 9 out of every 10 poor households are male-headed, while 1 out of

every 10 poor households is female-headed. Thus, it can be inferred that higher proportion of the poor households are male-headed and this is in accordance with Anyanwu (2013).

The table also presents multidimensional decomposition of the household poverty headcount into male and female-headed showing that about one-quarter of the households are in acute poverty irrespective of the gender but male-headed households contributed the larger (84.8%) percentage to poverty, which means that about 4 out of every 5 poor households are male-headed.

Table 5: Unidimensional and multidimensional headcount decomposition by gender

Gender	FGT headcount index	Contribution	MPIestimate	Contribution
Male	0.5693	0.8828	0.262	0.848
	(0.008)	(0.0068)		
Female	0.4318	0.1172	0.269	0.152
	(0.20)	(0.007)		
Total	**0.5488**	**1.0000**	**0.263**	**1.000**
	(0.008)	(0.000)		
Cut-off	₦4949		0.33	

Standard errors are in parentheses

4.4 Decomposition of household poverty headcount by marital status

Table 6 shows the breakdown of the unidimensional and multidimensional poverty headcount status of households by marital status. The results of the unidimensional measure show that about 3 out of every 5 married households are living below the poverty line of ₦4949 while about 2 out of every 5 households who are either single, divorced, widow, separated or never married are living below the poverty line ₦4949 and thus poor. The result also revealed that about 4 out of every 5 poor households are married while about 1 out of every 5 poor

households are either single, divorced, widow, separated or never married.

On the other hand, the multidimensional measure revealed that about 3 out of every 10 households either married or otherwise are living in acute poverty while the married and otherwise households contributed 81.3% and 18.7% respectively to the poverty been experienced. This finding is in agreement with Anyawu (2013) who found that the proportion of married (73.58%) households living in poverty was more than the non-married households (61.77%).

Table 6: Unidimensional and multidimensional poverty decomposition by marital status

Marital status	FGT headcount index	Contribution	MPI estimate	Contribution
Married	0.5821	0.8100	0.264	0.813
	(0.009)	(0.007)		
Otherwise	0.4071	0.1900	0.259	0.187
	(0.018)	(0.006)		
Total	**0.5488**	**1.0000**	**0.263**	**1.000**
	(0.008)	(0.000)		
Cut-off	₦4949		0.33	

Standard errors are in parentheses

4.5 Decomposition of household poverty headcount by household size

Table 7 shows the breakdown of the unidimensional and the multidimensional headcount poverty of households by the total number of individual living in a household. The results

of the unidimensional poverty analysis show that about half of households with household size between 1 and 10 are poor, about 7 out of every 10 households with household size between 11 and 20 are poor and 4 out of every 5 household with household size above 20 are poor. This shows that high poverty is associated with large household size. The result

also revealed that household size between 1 and 10 are the highest contributor to poverty as 7 out of 10 poor households have household size that lies between 1 and 10.

On the other hand, the multidimensional poverty headcount measure result shows that about 1 out of every 4 households

with household size between 1 and 10 are living in acute poverty, while 3 out of every 10 household with household size above 10 are in acute poverty. This finding is an agreement with Tilman and Sindu (2013) who noted that household size matters in unidimensional poverty while there were no significant effects on multidimensional poverty.

Table 7: Unidimensional and multidimensional poverty decomposition byhousehold size groupings

Household size grouping	FGT headcount index	Contribution	MPI estimate	Contribution
1-10	0.4906	0.7106	0.251	0.757
	(0.009)	(0.010)		
11-20	0.7743	0.2811	0.312	0.236
	(0.015)	(0.009)		
>20	0.7917	0.0084	0.303	0.007
	(0.083)	(0.002)		
Total	0.5488	1.0000	0.263	1.000
	(0.008)	(0.000)		
Cut-off	₦4949		0.33	

Standard errors are in parentheses

4.6   Decomposition of household poverty headcount by location

The unidimensional and multidimensional poverty headcount breakdown of households in respect to the location of the households is presented in Table 7. The unidimensional poverty measure result revealed that about 7 out of every 10 rural households are poor. Similarly, the result revealed that about 7 out of every 10 poor households reside in the rural area. Also, the result shows that about 3 out of 10 households are poor in the urban area. Thus, rural households are poorer than the households in urban area. This finding is in agreement with Nasri and Belhadj (2017) who found that people living in rural areas of Tunisia are the poorest as the

poverty rates in rural areas exceed the national poverty rate in all regions of Tunisia.

However, the multidimensional headcount measure revealed that about 3 out of every 10 households and about 1 out of every 10 households are living in acute poverty in the rural area and urban area, respectively. This is in line with Megbowon (2018) who found that households in the rural area are multidimensionally poorer than households in urban area. Also, this finding corroborates the study conducted by Oxford Poverty and Human Development Initiative (2017), where it was discovered that the proportion of multidimensionally poor rural households (17.2%) exceeds that of the urban households (3.6%).

Table 8: Decomposition ofunidimensional and multidimensional poverty indices by location

Location	FGT headcount index	Contribution	MPI estimate	Contribution
Rural	0.6714	0.6820	0.329	0.854
	(0.008)	(0.007)		
Urban	0.2859	0.3179	0.121	0.146
	(0.012)	(0.007)		
Total	**0.5488**	**1.0000**	**0.263**	**1.000**
	(0.008)	(0.000)		
Cut-off	₦4949		0.33	

Standard errors are in parentheses

V. CONCLUSION

This study contrasts the states of poverty in Nigeria using unidimensional and multidimensional poverty indices. Data from the Nigeria General Household Survey (GHS) conducted in 2015 was employed for this study. Indicators for MPI was

adapted from the 2018 United Nations Development Programme (UNDP) to analyse the multidimensional nature of poverty and this was compared with consumption expenditure of the unidimensional measure. The results revealed headcount poverty percentages of 55% and 56% for

the unidimensional and multidimensional poverty, respectively. However, the study found a 26% poverty headcount for the adjusted multidimensional poverty showing about one-quarter of the households is considered to be multidimensional poor.

The study also found that households with large number of members were poorest in both the unidimensional and the multidimensional poverty measures. Also, the unidimensional approach revealed a higher proportion of 88% of the poor household being male-headed, while the multidimensional poverty revealed similar high proportion of 82%. The result of the disaggregating deprivations of the MPI, which helps to bring out the indicators which needed to be focused on to address specific target groups, shows that households are more deprived in child enrollment, nutrition and assets indicators. Therefore, poverty alleviation programmes are needed regarding these welfare indicators in order to help households move out of chronic poverty. In all, results for both unidimensional and multidimensional poverty measures show similarities in some respects. However, for a detailed analysis, using both measures might be necessary in properly identifying the poor and instituting programmes to help in reducing poverty.

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