

Contributions of Information and Communication Technologies to Rural Dwellers' Poverty Status in Northeastern Nigeria

Yekinni, O. T., Adeniyi, R. T., Ladigbolu, T. A. & Adebisi, G. L.

Department of Agricultural Extension and Rural Development,
Faculty of Agriculture, University of Ibadan,
Ibadan, Nigeria

taofeeqyekinni@gmail.com rt.adeniyi@yahoo.com
adejojutemitope@gmail.com

Abstract

This study investigated contributions of information and communication technologies to poverty status of rural dwellers in Northern Nigeria. A multistage sampling procedure was used to select 230 respondents. Data were collected via interview schedule on respondents' enterprise characteristics, frequency of ICT use, constraints to ICT use and poverty status. Data were analysed using descriptive (percentages, mean and weighted score) and inferential (Chi-square Pearson Product Moment Correlation and Linear regression) statistics at $\alpha 0.05$. Results showed that mean farm size and years of farming experience were 13.7 hectares and 13 years respectively. Paid (37.8%) and family (34.8%) labour were the major sources of labour while most frequently used ICTs were mobile phone (247.0), radio (240.4) and television (184.0). Constraints encountered using ICT were inconsistent supply of power (146.4), cost of recharge card (140.9) and fluctuating network service (138.3), while the majority poverty status was non-poor (47.0%). Significant relationship existed between respondents' year of experience ($r=0.02$), sources of labour ($\chi^2=174.92$), sources of finance ($\chi^2=494.59$) and poverty status. Meanwhile, the use of radio ($\beta=0.90$) television ($\beta=0.39$), Newspaper ($\beta=0.33$) and mobile phone ($\beta=0.31$) contributed to their poverty status. Therefore, developmental practitioners should continue to use mobile phone, radio, television and newspaper for information propagation as these ICT decreased rural dwellers' poverty status and have potentials to do more in poverty alleviation if constraints like inconsistency supply of power, cost of recharge card and fluctuating network service are checked.

Keywords: Rural dwellers, ICT, Poverty status, Mobile phone and Inconsistence supply of power.

Introduction

Poverty is one of the greatest challenges facing rural dwellers of developing nations of African. It has been described by developmental agencies as the inadequate and insufficiency possession of income that can secure basic needs, goods and services needed by an individual. These essentials of life include basic education, health care, life expectancy, high self-esteem, access to gainful employment, access to finance and infrastructure (electricity, good road, primary health centre). Others are; farm input, sanitation, safe drinking water and information among others. At the other hand, poverty when viewed with capability lenses was said to be dearth of human competence to function in a conventional and at the minimal level in the society at a given period. This further connotes in ability of an individual to advance his/her capabilities (Orokpo, Haruna, Asmau, and Mutong, 2018; Omoniyi, 2018 and Adebayo, 2018).

Globally, poverty has been a phenomenon that demands urgent attention of the government agencies, non-governmental Organisation and every stakeholder involved in the

sustainable developmental issues. This should be attended to for easy attainment and achievement of the first target of United Nation's sustainable goal which aimed at putting an end to poverty by the year 2030 (Yomi, 2018 and Muhamonad, 2019). Despite the economic advancement of Nigeria (Northern part of Nigeria inclusive), it is very alarming that Nigeria is the poverty capital of the world. Her poverty level remains 33.1% in July, 2019 with 46.7% of her population in extreme poverty (living on less than 1.90 dollars per day or 684 naira in a day) as revealed by Ikenwa (2019) using National Bureau of statistics poverty rating.

Studies from Orokpo *et al* (2018) have shown that there is a geographical dimension to poverty in Nigeria as its rate and effect is higher in rural area than urban centres. For instance, in 2004, the urban dwellers that accessed safe drinkable water was 67 percent, while it was just 33 percent in the rural areas. In terms of sanitation services, 53 percent of the urban population were able to access good sanitation services compared with 37 percent of their rural counterparts while 62% of the urban accessed primary healthcare (Orokpo *et al*, 2018 and Adesuwa, 2018). Given the figures above, it could be concluded that the rural populace in Nigeria face a great difficulties in living a standard life when compared with their counterparts that are urban dwellers. Hence, rural poverty is a serious threat to sustainable development as food and nutrition security in Nigeria hinges on rural populace being predominantly agrarian society (Muhamonad, 2019 and Adeniyi and Yekinni, 2015).

However, the causes of high poverty status in rural communities as opined by Omoniyi (2018) include land degradation, low external inputs, income inequalities, low productivity, poor empowerment, poor infrastructure, poor governance, and poor quality of life, unstable government policies on economic and agriculture; and high level of constraints to access and use information communication technologies among others. Hence, the effect and impact of poverty in the rural area of the developing nations include hunger, ignorance of citizens' right, malnutrition, disease, child mortality, human hopelessness, poor marketing, food and nutrition insecurity, poor access to credit facilities and low life expectancy as well a low access to developmental information (Adesuwa, 2018).

Meanwhile, the Federal government of Nigeria has executed several programs to alleviate poverty, these include Operation Feed the Nation (1978), Green Revolution (1982), the Directorate of Foods Roads and Rural Infrastructures (DFFRI), National Directorate for Employment (NDE), Poverty Alleviation Program (PAP), National Poverty Eradication Program, (NAPEP) and Seven Point Agenda (Orokpo *et al*, 2018) among others.

Information and Communication Technologies (ICT) have potentials to alleviate the effect of poverty through enhancing rural livelihood of the rural dwellers who needs developmental information that can let them out of the poverty net for better wellbeing. ICT via the information it offers, has been widely recognised as an essential tool to enhance economic growth and to solve developmental issues including poverty in developing nations. According to Ogar, Dika, and Atanda (2018), the developmental information needs of the rural dwellers include information on Agriculture, health, educational, religious, and economic or livelihood, political or community development, employment opportunities, mode and method of land acquisition, information on legal matters, transportation, religion, crime and safety. The opportunities offered by ICT to rural society include access to the global markets, better technologies for delivering goods and services, improvement in human efficiency, creation of new opportunities for income generation, provision of health information, literacy advancement, giving poor people a voice and provision of new opportunities for tapping global knowledge. The main effort of ICT utilisation for developmental information in rural communities aimed at improving their lot and at

enhancing the rural dwellers' standard of living as it focuses on combating poverty (Orokpo *et al*, 2018). Teledensity in Nigeria was (120% in November 2018) as documented by Adepetun (2018); and the assertion of Yekinni, Ladigbolu, Adeniyi and Adebisi (2019) that the most available, accessible and utilised ICT tools in Northern Nigeria are radio, mobile phone and television; has positioned the country (northern part of the country inclusive) well in the use of ICT for poverty alleviation. Furthermore, ICT tools like mobile phone, radio and television have been used to disseminate developmental information in some developing countries like Afghanistan, Uganda and India for different sect of people (Ogar, Dika, and Atanda, (2018)). Hence, it is pertinent to study the contributions of information and communication technologies to rural dwellers' poverty status in Northern part of Nigeria. Furthermore, the study ascertained the enterprise characteristics of the respondents, examined the frequency of use of ICT, constraints faced by the respondents to ICT use, poverty status. The study hypothesised that no significant relationship existed between enterprise characteristics and poverty status.

Methodology

The study area (Northeastern zone of Nigeria) lies between latitude 9° 5'N to 13° 44'N and longitude 9° 50'E to 14° 38'E. Multistage sampling procedure was employed to select respondents for this survey. Firstly, the selection of two (30%) from the six states in Northeast zone was done using simple random sampling technique. The states selected were Adamawa and Taraba states. Secondly, simple random selection of two (10%) LGAs each was made from Adamawa and Taraba state with 21 and 16 LGAs respectively. The third stage involved simple random selection of 20% of the wards in the selected states to give two wards from each of the four LGAs selected to give a total of eight wards. The fourth stage involved the simple random selection of two villages from each of the eight wards giving sixteen villages in all. The fifth stage was the systematic selection of fifteen households from each of the sixteen villages to give 240 households. Then household heads were interviewed but the response rate was 96% of 240 expected sample size therefore in all 230 men were sampled for the study. Data were collected using structured interview schedule. Data were analysed using percentage, mean and weighted score, Chi-square, Pearson Product Moment Correlation (PPMC) and linear regression at α 0.05.

Respondents' enterprise characteristics like farm size, years of farming experience, labour source and sources of finance were measured on both nominal and interval level as the case dictates.

The frequency of use of the ICT tools was measured by providing them with 12 possible ICT that could be used by the respondents in the study area with the response options of 'always', 'occasionally', 'rarely' and 'never'. The responses were assigned 3, 2, 1 and 0 respectively. Thereafter, the weighted score for each ICT devices used was determined and used to rank them accordingly.

Constraints faced by the respondents in using the ICT tools were measured in order of severity with a list of 10 constraints items with the response option of "serious constraint", "mild constraint" and "not a constraint". The scores of 2, 1 and 0 were assigned respectively to each response options. The list of the constraints include inconsistent supply of power, cost of re charge card and fluctuating service. An index of constraints encountered was generated by adding up the responses. Respondents' scores that fall within mean and above was categorised high level of constraints while those that fall below mean was categorized as having low constraints to the use of ICT. The weighted score was computed and used to rank the constraint in order of severity.

The poverty status of the respondents was measured by capturing their household size and household expenditure on basic needs of life (foods and non-food) items per period (month/annum). The data obtained were used to categorise the respondents into: Extreme poor (core poor), moderately poor and Non poor according to NBS (2005); the categories were assigned the values of 2, 1 and 0 respectively. Per capital household expenditure was obtained from total household expenditure divided by the household size i.e. the sums of all per capital household expenditure across all the households was divided by the total number of households to give mean per capital household expenditure. From the data obtained, the mean per capital expenditure was N5, 435.26. The poverty line was based on 2/3 of the average per capital expenditure which was N3, 623.33. All the respondents with per capital expenditure less than N3, 623.33 were considered core poor, while those with per capital expenditure greater than N3, 623.33 and up to N5, 435.26 were considered moderately poor. Those with per capital expenditure above the mean (N5, 435.26) were considered Non-poor.

Enterprise characteristics of the respondents

Table 1 reveals that the most prominent source of labour to the respondents were family (34.8%) and hired labour (37.8%). This implies that majority of the respondents depended on paid labour and family members to get their enterprise job done. This is in line with the findings of Adeniyi and Yekinni (2015) who found similar result among the rural dwellers of Oyo State. On the sources of financing their livelihood activities as reveals in Table 1, the study found that majority (63.0%) of the respondents personally financed their livelihood while only 2.6% depended on loan from bank. This implies that most of the respondents do not rely on any external source to fund their enterprise which might be due to the high or arbitrary interest charged by financial institutions; also the main source of their finance was an indication of the subsistence nature of their enterprise and a pointer to their poverty status.

The result in Table 1 further indicates the respondents farm size in which most (68.7%) of the respondents had between 1 and 10 hectares of farmland with their average farm size being 13.7 hectares. This means that majority of the respondents have fairly large farm size which might inform their use of hired labour as the study as identified earlier which was in tandem with the findings of NOIPOLLS (2018). Table 1 also reveals the respondents' years of enterprise experience in which 42.2% of them had less than 10 years of farming experience while only 2.6% of the respondents had above 40 years of experience. The 12.95 mean year of experience shows that most of the respondents were not new in their enterprise and hence must have acquire skill and knowledge required for sustainable income from their enterprise.

Table 1: Distribution of respondents by enterprise characteristics

Characteristics	Frequency	Percentage	Mean
Source of labour			
None	27	11.7	
Family members	80	34.8	
Paid labour	87	37.8	
Friends	2	0.9	
Associations members	6	2.6	
Self	28	12.2	
Source of finance			
None	49	21.3	
Self	145	63.0	
Family members	16	7.0	
Friends	5	2.2	
Association members	8	3.5	
Banks	6	2.6	
Other	1	0.4	
Farm size			
Not indicated	55	23.9	13.7
1 – 10	158	68.7	
11 – 20	11	4.8	
21 – 30	2	0.9	
Above 31		1.7	
Years of experience			
Less than 10	97	42.2	12.95
10 – 20	84	36.5	
21 – 30	35	15.2	
31 – 40	8	3.5	
Above 40	6	2.6	
Total	230	100.0	

Source: Field survey, 2012

Frequency of use of ICTs

The result of the study in Table 2 shows the frequency of use of ICT tools among respondents. The study found that mobile phone (247.0) radio (240.4) and television (184.0) were the most frequently used ICT tool in respective order. This implies that mobile phones and radio are the most popular ICTs tools used compared to the land phone that was least used by the respondents. The result of this finding is in tandem with the assertion of Yekinni, Ladigbolu, Adeniyi and Adebisi (2019) that the trend of the ICT tools available in in North East Nigeria were radio, mobile phone and television. The reasons for the frequent usage of mobile phone than the land phone by the respondents might be due to the popularity and convenience of use of the ‘multi-communication media’: For making and receiving calls and Short Message Service (SMS) using wireless features of mobile phone.

Table 2: Distribution of respondents according to the frequency of use of ICTs

ICTs Tools	Always	Occasionally	Rarely	Never	Weighted scores	Rank
Mobile phone	78.3	5.2	1.7	14.8	247.0	1 st
Radio	73.0	9.6	2.2	15.2	240.4	2 nd
Television	40.0	28.3	7.4	24.3	184.0	3 rd
Newspaper	25.7	18.3	10.9	45.2	124.6	4 th
Computer	27.4	16.1	8.7	47.8	123.1	5 th
Poster	19.1	20.4	10.9	49.6	109.0	6 th
Internet	18.3	16.5	9.6	55.7	97.5	7 th
Email	17.0	10.4	8.7	63.9	80.5	8 th
Bulletin	16.1	8.3	10.0	65.7	74.9	9 th
News letter	16.5	5.7	13.9	63.9	74.8	10 th
Land phone	13.9	5.2	11.7	69.1	63.8	11 th
Fax	13.0	2.2	8.3	76.5	51.7	12 th

Source: Field survey, 2012

Constraints to the use of ICTs

Table 3 shows that the most severe constraint faced by the respondents to the use of ICTs was inconsistency supply of power (146.4) with the highest weighted score, this is followed by high cost of recharge card (140.9), fluctuating service (138.3) and inadequate access to ICTs (137.3) were ranked second, third and fourth respectively. This implies that inconsistency power supply is the major factor that hinders the frequent use of the ICT in the study area. It further implies that the respondents that might be willing to frequently utilise their ICT in the study area must be ready to go for private/personal source of electricity; rather than depending on the electricity that is being supply by the government. However, electricity has been identified as one of the factors that affect poverty as it has been acknowledged as one of the essential basic need of an individual (Adesuwa, 2018 and Orokpo, 2018). The result of this study is in line with the findings of Ogar *et al* (2018) where electricity has been identified as one of the prominent constraint to ICT use. On the other hand, the constraint due to high cost of recharge card might be as a signal to their poverty status or probably that the mobile phone was not all that utilised for economic purpose while, the fluctuating service and the inadequate access to ICT constraint could be as a result of the remoteness of the study area. This implies that the service provider do contribute to the constraint face by the rural dweller in the use of their ICT. This is in consonance with the findings of Adeniyi and Yekinni (2015) that network problem is a major barrier to ICT use in the rural communities.

However, the high level of constraint faced could be because of their inability to spend much money for the upkeep of their ICT from their income as well as the constraint induced through the use of ICTs by the respondents as identified in Table 3. The level of constraint is in tandem with the position of Adeniyi and Yekinni (2015) that rural dwellers are faced with high constraint to ICT use.

Table 3: Distribution of respondents according to constraints to the use of ICTs

Characteristics (constraints)	Serious constraint%	Mild constraint%	Not constraint%	a Weighted score	Rank
Inconsistent supply of power	68.2	10.9	20.9	146.4	1 st
Cost of recharge card	56.1	28.7	15.2	140.9	2 nd
Fluctuating service	54.8	28.7	16.5	138.3	3 rd
Poor network	58.2	20.9	20.9	137.3	4 th
Inability to ask relevant question and get feedback quickly	56.5	18.7	24.8	132.7	5 th
Missing of information	52.6	26.5	20.9	131.7	6 th
Lack of awareness	54.0	23.0	23.0	131.0	7 th
Network coverage	50.3	30.4	18.3	131.0	7 th
Irrelevant content	55.6	19.6	24.8	130.8	9 th
Inadequate technological content	55.2	17.8	27.0	128.2	10 th

Level of constraint	Frequency	Percentage
High	143.0	62.2
Low	87.0	37.8

Source: Field survey, 2012

Poverty level of the respondents

The result of analysis of data presented in Table 4 below shows that 25.2% of the respondents are categorised as core poor, 27.8% of them are classified as poor while 47.0% of respondents are non-poor using per capital expenditure approach with reference to poverty line as a basis for gauging poverty. This implies that most of the respondents were non-poor and hence should be able to finance their ICT as a means to mitigate the epileptic power supply and cost of recharge card as earlier identified by this study. The larger percentage of the respondents that fall above the poverty line was in consonance with the assertion of Orokpo *et al* (2018) and Adesuwa (2018) that not all the rural populace are poor.

Table 4: Distribution of respondents by their poverty level

Poverty level	Frequency	Percentage
Core poor	58	25.2
Poor	64	27.8
Non-poor	108	47.0
Total	230	100

Source: Field survey, 2012

Contributions of ICT use to poverty status

Table 5 reveals that use of mobile phone ($\beta= 0.31$; $p=0.05$), radio ($\beta= 0.90$; $p=0.00$), television ($\beta= 0.39$; $p=0.01$) and newspaper ($\beta= 0.33$; $p=0.03$) significantly contributed to the respondents' poverty status. Mobile phone, radio, television and newspaper contributed 31%, 90%, 39% and 33% respectively to the respondents' poverty status. This implies that the information gathered through radio has been useful for respondents' better way of life. It further implies that the utilisation of ICT has helped in alleviating poverty among the respondents.

Table 5: Regression analysis of contributions of ICT use to poverty status (n=230)

Variables	β -value	t-value	p-value
Use of Mobile phone	0.31	1.53	0.05
Use of Radio	0.90	3.46	0.00
Use of Television	0.39	1.99	0.01
Use of Newspaper	0.33	3.04	0.03
Use of Computer	-0.00	-0.03	0.97
Use of Poster	0.00	0.03	0.97
Use of Internet	-0.01	-0.08	0.94
Use of Email	0.06	0.47	0.64
Use of Bulletin	-0.21	-1.53	0.13
Use of News letter	0.09	0.60	0.55
Use of Land phone	-0.09	-0.58	0.13
Use of Fax	-0.12	-0.84	0.40

Source: Field survey, 2012

Relationship between enterprise characteristics and poverty status

Results of Chi-square and PPMC analyses (Table 6) shows that sources of labour ($\chi^2=174.92$; $p=0.000$), sources of finance ($\chi^2=494.59$; $p=0.00$) and years of experience ($r=-0.22$; $p=0.00$) of the respondents were significantly related to the respondents poverty status while socio-economic characteristics like farm size was not significant to the respondents poverty status.

As per the sources of labour, the two main sources of labour identified by this study were family (34.8%) and hired labour (38.8%) respectively (Table 1); this means that the two labour sources were prominent in the study area with positive direct relationship to get the respondents out of poverty. This further implies that the type of labour used by the respondents for their livelihood activities contributes immensely to their poverty status. The finding of this study is in tandem with the assertion of Orokpo *et al* (2018) that labour (a form of employment opportunity) dictates the poverty level of rural dwellers. The significance of sources of finance to poverty level shows that the means through which the respondents finance their enterprise enhances their income and hence, might make them to be above the poverty line. This might be due to the observation of Omoniyi, (2018) that source of finance for an enterprise is directly proportion to poverty level among the rural inhabitant.

Also, the inverse significant relationship between the respondents' years of experience and poverty status implies that the respondents with higher experience in enterprise of their choice had a low status of poverty and vice versa. This further connotes that the experience gained in their livelihood has been helpful in improving their income which may eventually get them out of poverty (Orokpo *et al*, 2018). However, it is expected that farm size will have positive significant relationship with the poverty status, hence, the insignificant of this might be due to the fact that farm size may not determine the yield that will translate to increase in the respondent income that might alleviate the respondents' poverty. Since several factors (labour, capital and entrepreneur) aside from land do affect the production rate. Also, other factors like climate (rainfall, temperature, relative humidity), biotic (pest, diseases) and edaphic (soil type, topography, soil PH) could be responsible for crop yield in crop husbandry (Iwena, 2015).

Table 6: Test of relationship between enterprise characteristics and poverty status (n=230)

Characteristics	χ^2	Df	p-value	Decision
Sources of labour	174.92	5	0.00	Significant
Sources of finance	494.59	6	0.00	Significant
Variables	r-value	*NA	p-value	Decision
Years of enterprise experience	-0.22	-	0.00	Significant
Farm size	-0.43	-	0.52	Not significant

Source: Field survey, 2012 *NA- Not applicable

Conclusion and Recommendation

Based on the findings of this study, it was concluded that the respondents were non-poor, self-finance farmers that always got their job done by the family members and hired labourers. The study also identified mobile phone, radio and television as the most frequently used ICT tools with inconsistency supply of electricity and high cost of recharge card as the constraints to the ICT use. Respondents' years of farming experience, sources of labour and finance sources were significant to respondents' poverty status. The use of mobile phone, radio, television and newspaper contributes positively to the non-poor status of the respondents with the highest contribution from radio.

The study recommends that training on the best use of ICT tools like mobile phone should be encouraged for respondents to enjoy the optimum benefits (sources of income) the tool could offers especially the 'U tube' format. This could alleviate the respondents' poverty level for better standard of living, hence, developmental practitioners should continue to use mobile phone, radio, television and newspaper for information propagation as these ICT has been affirmed to decreases rural dwellers' poverty status and as well have potentials to do more in poverty alleviation. Also, the alternative power source should be provided as respondents' could be encouraged to pool their resources together while the status of power supply should be enhanced (regular). Also, there should be reduction in the call tariff to enhance the use of mobile phone for poverty alleviation.

References

- Adebayo, B. (2018). CNN – Nigeria overtakes India in Extreme Poverty ranking. Accessed 5th September, 2019
- Adeniyi, R. T. and Yekinni, O. T. (2015). Arable crop farmers' characteristics affecting the utilization of information and communication technology for agricultural marketing information in Oyo State, *Nigerian. Journal of Rural Sociology*, 15(2), 23-29.
- Adepetun, A. (2018). Technology- Nigeria grows teledensity by 19.1% in one year.
- Adesuwa, A. (2018). An expanding Country: Four of the main causes of Poverty in Nigeria Blog-latest News. <https://borgenproject.org/causes-of-poverty-in-Nigeria/>
- Ikenwa, C. (2019). Top five tribe in Nigeria (2020): The poorest Nigeria tribe. National Bureau of statistics. [Nigeriainfopedia. Com ng//poorest-tribes-in-nigeria/](http://Nigeriainfopedia.Com). Accessed. 20th March 2020
- Iwena, O.A. (2015). Ecology of crop production. *Essential of Agricultural Science for senior secondary school*. Pp 141-144; 213-217
- Muhamonad, S.A. (2019). Three things Nigeria must do to end extreme Poverty. Accessed 5th September, 2019
- NBS (2005). Poverty Profile for Nigeria. National Bureau for Statistics, Federal Republic of Nigeria, Abuja
- NOIPOLLS, (2018). Nigeria's agricultural sector still dominated by subsistence farming; as farmers call for more support. December 11, 2018. <https://noi-polls.com/nigerias->

- agricultural-sector-still-dominated-by-subsistence-farming-as-farmers-call-for-more-support/ Accessed 5th June, 2020.
- Ogar, C. E.; Dika, S.I. and Atanda, L.A. (2018). Challenges and Prospects of Information service delivery to rural people of Nigeria. *Research Journal of Library information Science*. Vol.2, Issue 3, 2018. Page 14-28. ISSN 2637-5915. SRYAHWA Publication.
- Omoniyi, B. B. (2018). An examination of the causes of poverty on economic growth in Nigeria. Aosis Publishing- Africa's Public Survive Delivery and performance .Review- African development Watch.
- Orokpo, O. F.; Haruna, P.O.; Asmau, M. A. and Mutong, S. M. (2018). Nigeria's raising Poverty profile amidst poverty Alleviation programs interrogating the paradox. *International Journal of Innovative Development and policy Studies* 6 (2): 109-116, April-June, 2018. SEAHI PUBLICATIONS, 2018. ISSN: 2467-8465. Accessed 5th Sept, 2019.
- Yekinni, O.T.; Ladigbolu, T.A; Adeniyi, R.T. and Adebisi, G.A. (2019). Benefits Derived from the Use of Information and Communication Technologies among Rural Farmers in Northeast Nigeria. *Journal of Agricultural Extension*, Vol. 23 (3) July, 2019, ISSN (e): 24086851; ISSN(Print); 1119944X <http://journal.aesonnigeria.org>, <http://www.ajol.info/index.php/> , <https://dx.doi.org/10.4314/jae.v23i3.10>. Pp 117-125.
- Yomi, K. (2018). Nigeria has become the poverty capital of the world. <https://qz.com/africa/131>: Accessed 24th July, 2019.