Impact of Information Literacy Skill on Sustainable Development Goals for Economic Development and Awareness Differences among Rural and Urban Dwellers

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Abstract

Quantum growth in information has made information users more cautious especially in access, search and retrieval of adequate and relevant information in times of need. Therefore, consciousness of need, search, evaluation, retrieval and utilization of information is the bases for information literacy. The UN has outlined 17 sustainable development goals through which the societies will engage in palliative ventures targeted towards sustainability of life and environment. Awareness of the scheme and Information literacy skills are earmarked as vital elements that enhances awareness, access and search ability of various information

that is related to the sustainable development goals' programmes and objectives. This study examined the impact of Information literacy skill and Sustainable Development Goals on poverty alleviation, agricultural development and economic development. A total of 400 respondents that comprised 200 from Kunduga local government and 200 from Maiduguri Metropolitan Council of Borno state were selected in a convenience sampling technique through questionnaire. SDGs awareness among the rural dwellers was average and low while it was very high and high among the urban dwellers. Also, result revealed a positive and significant impact of Information Literacy on Sustainable Development Goals, while SDGs had positive and significant impact on poverty alleviation and agricultural development. Further, the result showed that agricultural development and poverty alleviation explained larger percentage of economic development. Recommendations were made towards effective information literacy skill training among the rural dwellers for SDGs awareness.

Keywords: ***Information literacy, SDGs, Economic Development, Agricultural Development, Poverty Alleviation Programmes, Awareness.***

Introduction.

Recent upsurge in application of electronic media in virtually every endeavour has opened doors for several studies on information literacy, thereby leading to the emergence of concepts such as e-government, e-banking, e-health information, e-learning by both government, individual, institutions and non-governmental organisations.The ability

Nations include poverty reduction through improved agricultural development. Global poverty has threatened the wellbeing of the larger population, especially the less and underdeveloped countries of the world and like a virus, it has eaten deep into sociocultural and economic life and left them sick and malnourished. Investment in agricultural development has been targeted as relevant channel of palliative measure to curb excessive poverty. In Nigeria, agricultural development for food production and economic development by the government has been asserted (Ogbo, Eneh, Agbaeze, Chukwu&Isijola, 2017) which according to (Erhun, 2015) can be a positive driver of the economy.In reaction to the demands for improved agricultural development in Nigeria, the National Voluntary Review (2017) on the Implementation of the SDGs tagged "Eradication of Poverty and Promoting Prosperity in a Changing World" highlighted progress on some specific goals which include end poverty in all its forms and end hunger, achieve food security; improved nutrition and promote sustainable agriculture as specific goals one and two respectively.The federal government developed the Economic Recovery and Growth Plan (FGN., 2017) among others and merged it with SDGs objectives as lifeline to the achievement of Nigeria's National Medium-Term Plan for 2017 2020 which according to the Nigeria government was to re-establish supported economic development while advancing social incorporation and

establishing the frameworks for long-term basic change. It centers on giving full macro-economic stability, invigorating performance in essential sectors and handling critical constraints to long-term growth. These led to vast and integrative agro-business in Agricultural supply chains through the Agriculture Green Alternative Plan for food security and curb hunger.

Poverty and hunger have taken a global perspective especially among the underdeveloped countries. It has been on steady increase in spite programmes by successive government to curb poverty and its negative effects. This is evident in recent report by the National Bureau of Statistics (NBS) (2015) which placed the poverty level in Nigeria at 62.6%. Its endemic nature has laud the youths into restiveness and radicalization leading to terrorism and social vices (Madu, Musa, Makinta) & Damsheed, 2017). It is envisaged that low level of hunger and poverty in the country, valuable investment in agricultural production will enhance economic development.

Statement of the problem.

Dearth of empirical studies which investigates the relationships and impacts in the context of this study forms a big hurdle, moreover, available studies on information literacy between 1998 and 2014 concentrated on the educational context (Williams, Cooper and Wavell, 2014). Prior to

September, 2015 UN declaration of SDGs, success and or failure of the Millennium Development Goals (MDGs) was not connected to information literacy skill among the beneficiaries. Information literacy enhances individual's chance to survive in present state of information superhighway. It forms the bases for awareness and access to reports and communique regarding political, economic and social policies. The level of information illiteracy in Nigeria, especially the rural areas has created great fear over the success of efforts by government and non-governmental bodies to transform the goals into sustainable ventures. The implication is that the targeted portion of the populace may not benefit much as expected from such programmes. Nigerian government has initiated several project which streamlines SDGs into the economy (Federal Republic of Nigeria, 2016), in addition to regional alliance (Urama, Ozor & Acheampong, 2014), awareness of such projects remains a prerequisite factor as most of such projects are projected through social media and other electronic medium.

Moreover, information on the initiatives, modes of access and participation are mostly conveyed through print and non-print media, it becomes very difficult for someone without information literacy skill to be aware of such initiatives and subsequent access to them. Most people for whom such sustainable projects are initiated often fail to benefit as expected due to low awareness as antecedent of low or non-

information literacy skill. Until information literacy competence of the people is taken into consideration while designing such programmes, the impact of such on the targeted population will not be realised. This study therefore aim to under the benefits of the relationship between information literacy and sustainable development goals in one hand, and in the other hand, the information literacy level, SDGs awareness among the rural and urban dwellers was gauged in comparison.

Literature Review

Agricultural is considered the major economic sector among developing countries, due to its potency to generate employment, enhance food and cash crop production as well as poverty reduction (Erhun, 2015). According to goal number two which is targeted to bring an "end to hunger, ensure Food Security; Improved Nutrition and Promote Sustainable Agriculture", Nigeria's National Medium-Term Plan for 2017 2020 through the NERGP strategy was designed to restore economic growth among others and is a compendium to the government's sectorial plans for agriculture and food security (FGN, 2017). Adejumo and Adejumo (2014) studies the Prospects for Achieving Sustainable Development through the Millennium Development Goals in Nigeria. The paper highlighted some environmental and social threats to Nigerian economic development. It therefore suggested that

programme among urban and urban dwellers in Borno State.

v. The impact of agricultural development and poverty alleviation programmes on economic development among urban and rural dwellers in Borno State.

Research Question

This study is guided by the following research questions:

i. What are the Information literacy skill differences between urban and rural dwellers in Borno State?

ii. What are the SDGs Awareness differences between urban and rural dwellers in Borno State?

iii. Is there positive and significant impact of IL on SDGs for agricultural development, poverty alleviation programme and economic development?

Hypotheses

This study tested six null hypotheses to fulfil research objective 3, 4 and 5, they include:

HO_1: There a positive and significant impact of Information Literacy Skill on Sustainable Development Goals among urban and rural dwellers in Borno state.

HO_2: There a positive and significant impact of Sustainable Development Goals on Agricultural development and Poverty Alleviation programme among urban and urban

dwellers in Borno State.

HO_3: There a positive and significant impact of Agricultural development and Poverty Alleviation programmes on economic development among urban and rural dwellers in Borno State

Research methodology.

This study used a survey method with questionnaire as instrument to draw a sample of two hundred (200) respondents from Kunduga local government area (KDGLGA) and two hundred (200) from Maiduguri Metropolitan Council (MMC) respectively, this summed up to four hundred (400) samples in the study. The sample was generated through a convenience sampling technique. A survey method was preferred in this study because of its potency in a study of large and heterogeneous population (Walden (2002), while convenience sampling technique was used because it allows the researcher to use his own judgement when a population is considered too large and complex to select available sample for the study (Kothari, 2004).

The questionnaire was divided into demographic information of the respondents, information literacy level and SDGs awareness level for urban and rural dwellers, and clusters to measure impacts of information literacy skill (ILS), Sustainable Development Goals (SDGs), Agricultural development (AGRICDEV), poverty alleviation programmes

(PAP) on economic development (ECONDEV). The questionnaire was self-designed in 5-point Likert scale ranging from 1, (strongly disagree) to 5 (strongly agree) and were measured with 4.3.4, 4, and 6 items respectively. A framework was identified to measure the impact of the independent variables on the dependent variables (Figure 1)

Data analyses was conducted with SPSS version 22 and smart PLS 2.0 software packages for Descriptive analysis and inferential analysis respectively. Measurement model was estimated to determine impact of the variables while and structural model were estimated to determine level of significant through bootstrapping (Chin, 1998; Hair, Ringle, & Sarstedt, 2011) at 2oo cases with 3000 samples. Partial Least Square (PLS) is a variance based statistical software that is used for prediction or estimation of impacts between dependent and independent variables (Chin, Marcolin, & Newsted, 2003).

Data analyses

A total of 255 copies of the questionnaire were retrieved from Maiduguri Metropolitan Council, out of which 55 were rejected for inaccurate entries. In Kunduga local government area, 93 out of 290 were invalidated for wrong and unengaged responses to make 197, additional 3 valid responses were collected to complete it 200 as the responses from the Maiduguri Metropolis Council. Therefore, a total of 400 valid samples was used for this study with both research

setting contribution 200 respondents each.

Demographic information

Table 1: Gender and profession of Respondents.

Demographic information of the respondent according to gender in Table 1 revealed that majority of the responder are male with 340 (85%) while females constituted 60 (15%) of the sample. Also, information regarding profession revealed that 79 (19.75%) and 78 (19.5%) of the respondents are farmers and herdsmen respectively. They were followed by civil servants and traders respectively with 66 (16.5%) and 55(13.75%). Students and unemployed people came close with 47 (11.75%) and 45 (11.25%) while artisans were the least with 30 (7.5%) among the respondents. This imply that farmers and herdsmen form the highest frequency, they were followed by civil servant and traders among the respondents.

Information Literacy Level among Rural and Urban Dwellers

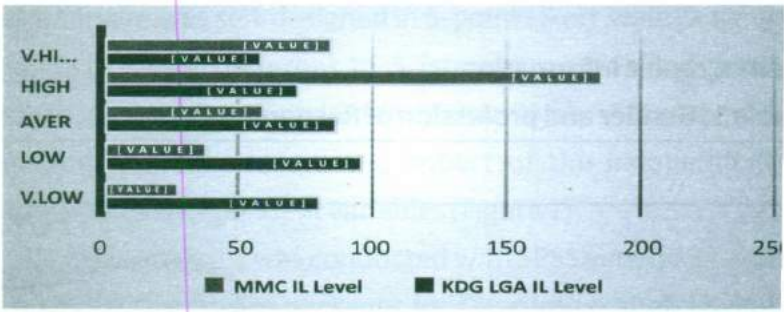

Figure 2: Information literacy Level

Information literacy level has been considered as a important factor for access to SDGs programmes an initiatives. Descriptive analysis of the differences in the level information literacy between the MMC andKDG LGA represent Urban and rural dwellers. The findings are present in figure 2. The result showed that out of the 400 responder from both locations, MMC recorded 88 (22%), 192 (48%), (14%), 43 (10.75%) and 21 (5.25%) for very high, high, averag low and very low respectively. Also, KDG LGA had 56 (14%), (18.25%), 87 (21.75%), 99 (24.75%) and 85 (21.25%) for ve high, high and to very low among the respondents.

SDGs Awareness among Rural and Urban Dwellers.

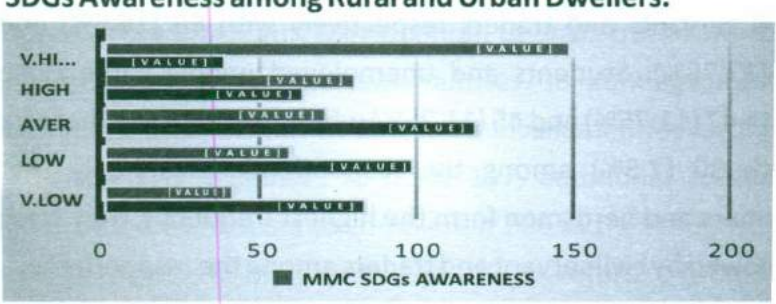

Figure 3: SDGs Awareness

Awareness of Sustainable Development Goals precedes the appreciation and participation in its activities by the population under study. This study considered it important to estimate the level of awareness of SDGs among the study locations. Descriptive analysis in table 3 revealed that MMC had 150 (37.5%), 80 (20%), 69 (17.3%), 58 (14.5%) and 43 (10.8%) of very high to very low awareness of SDGs. On the other hand, KDG LGA also had 40 (10%), 60 (15%), 120 (30%), 100 (25%) and 80 (20%) of very high, high, average, low and very low of SDGs awareness.

Measurement Model.

The reliability, internal consistency, content validity, convergent as well as discriminant validity were determined to measure the items of each variable in the model.

Content validity was determined through the observation of the factor loading of each item in the variables which according to Ismail, Abdul Majid, Zakaria, Abdullah, Hamzah & Mukari (2018) should be distinct from the values ofitems from the other variables. Table 2showed the values to be of highest scores in the individual variables in comparison with scores of the other constructs, and thus reveals the content validity of Information literacy skills, Sustainable development goals, agricultural development, poverty alleviation programmes and economic development is above the threshold of .5 according to (Moeller, Eiten, White, & Shisler 2006)

Table 2: Items' Cross loadings.

	AGRIC DEV	ECON DEV	ILS	PAP	SDGs
AGRICDEV1	0.9290	0.8059	0.6748	0.7785	0.7681
AGRICDEV2	0.9630	0.8936	0.7973	0.8626	0.8331
AGRICDEV3	0.9694	0.9057	0.7875	0.8548	0.8654
AGRICDEV4	0.9225	0.8617	0.7504	0.8606	0.7996
ECONDEV1	0.8632	0.9510	0.7906	0.9276	0.8059
ECONDEV2	0.8903	0.9558	0.8178	0.8815	0.8722
ECONDEV3	0.8853	0.9462	0.8553	0.8742	0.8993
ECONDEV4	0.8508	0.9575	0.8499	0.9237	0.8398
ECONDEV5	0.8857	0.9601	0.8246	0.8847	0.8937
ECONDEV6	0.8981	0.9777	0.8462	0.8993	0.8940
IL1	0.6984	0.7516	0.8969	0.7449	0.7153
IL2	0.6751	0.7448	0.8825	0.6698	0.7704
IL3	0.7365	0.8261	0.9090	0.7691	0.7656
IL4	0.7235	0.7576	0.8656	0.8207	0.7243
PAP1	0.7882	0.8413	0.7881	0.8865	0.7459
PAP2	0.8178	0.8435	0.755	0.9300	0.7996
PAP3	0.8418	0.9102	0.7973	0.9456	0.7888
PAP4	0.8376	0.8754	0.7846	0.9386	0.8123
SDGs1	0.7287	0.769	0.6931	0.6965	0.9131
SDGs2	0.8271	0.8278	0.7957	0.7878	0.9602
SDGs3	0.8605	0.9327	0.8515	0.8876	0.9361

Convergent validity of variables reveals the inter-item relationships among the variables, these are measures through observation of the factor loadings, composite reliability (CR), and average variance extracted (AVE) (Hair, Black, Babin& Anderson, 2010). According to the scores in Table 2, all the item's loadings are higher than 0.5 (Fornell & Larcker, 1981) and are acceptable, also the average variance extracted (AVE) values which is a measure of level of common variance among the variables are greater than the threshold

score of 0.5 (Hair, Black, Babin, Anderson, & Tatham, 1998). Further, the composite reliability (CR), all the variables had values above 0.5 according to Byrne, (2010). Internal consistency of the constructs was determined through the Cronbach alpha values, and accordingly, all the variables scored above 0.7 (Byrne, 2011) which indicates good and accepted measure of reliability as indicated in Table 3

Table 3: Convergent Validity

Discriminant validity Assessment.

Distinctness of the items was examined thro discriminant validity assessment, this was achie throughcomparison ofsquare roots of average varia extracted (AVE), which should be not be less than correlations among the constructs of the st (Fornell&Larcker, 1981). The diagonal values in tabl indicates distinct square root of AVE higher that the othe each rows and columns. This confirmed discriminant validit the outer model and reliable for further analysis.

Table 4: Discriminant Validity

	AGRICDEV	ECONDEV	ILS	PAP	SDG
AGRICDEV	1				
ECONDEV	0.917	1			
ILS	0.797	0.867	1		
PAP	0.888	0.938	0.844	1	
SDGs	0.864	0.905	0.838	0.850	1

Structural Model Evaluation and Hypothesis Testing.

In other to test the hypothesised impact and relationship, inner model was estimated to determine the Standard path coefficient and level of significant according to (1998)

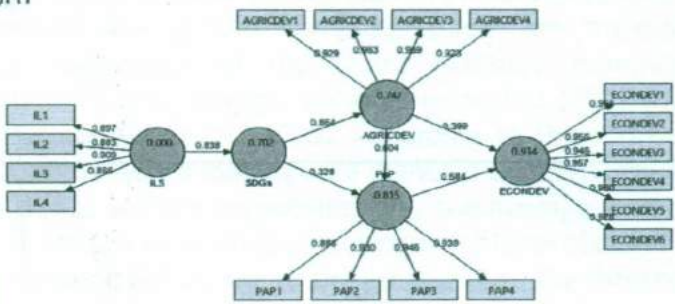

Figure 4: Measurement model.

Partial Least S Algorithm (PLS) was used to test the path coefficients, and bootstrapping, with 3000 bootstrap samples and 200 cases, used to generate significance of the path coefficients (Hair, Ringle & Sarstedt, 2011; Hair, Hult, Ringle&Sarstedt, 2014). The path model results yielded â-values in Fig. 4 while the path model significance results yielded t-statistics with estimated p-values as shown in Fig. 5.

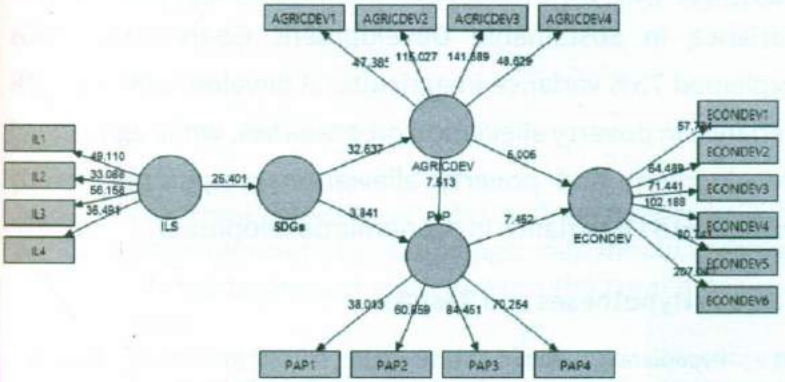

Figure 5: Path Model Significance Results (t-values)

Based on this result in figure 5 and table 4, hypothesis 1 (H1) was supported at 0.001 level of significance (â = 0.838, t = 25.401, p < 0.001), also, SDGs to Agricultural Development (AGRICDEV) (H2) and SDGs to poverty alleviation programme (PAP) (H3) was also supported at 0.001and 0.01 level of significance respectively(â = 0.8641, t = 32.637, p < 0.001), (â = 0.3279, t = 3.841, p < 0.01) likewise agricultural development (AGRICDEV) to PAP (H4) was supported at 0.001 significant

level (â = 0.6045, t = 7.5127, p < 0.001). Further results revealed that path between AGRICDEV and Economic Development (ECONDEV) (H5), Poverty Alleviation Programme (PAP) and ECONDEV (H6) were all supported at 0.01 and 0.001 significant level (â = 0.3992, t = 5.0051, p > 0.01) and (â = 0.5836, t = 7.4516, p > 0.001) respectively. (Table 4). Additional result in figure indicates that information literacy skills explained 71% variance in Sustainable Development Goals. Also, SDGs explained 75% variance in agricultural development and 82% variance in poverty alleviation programmes, while agricultural development and poverty alleviation programmes jointly explained 91% variance in economic development.

Table 4: Hypotheses and Results

Hpy.	Hypotheses	Beta	Standard Error	T Statistics	Decision
H5	AGRICDEV -> ECONDEV	0.3992	0.0798	5.0051**	Supported
H4	AGRICDEV -> PAP	0.6045	0.0805	7.5127***	Supported
H1	ILS -> SDGs	0.838	0.0330	25.4006***	Supported
H6	PAP -> ECONDEV	0.5836	0.0783	7.4516***	Supported
H2	SDGs -> AGRICDEV	0.8641	0.0265	32.637***	Supported
H3	SDGs -> PAP	0.3279	0.0854	3.841**	Supported

Conclusion

Awareness of Sustainable Development Goals in the rural area

has proven to be a great challenge towards actualization of objectives of SDGs, contrary to the situation in the urban area in Borno state. The impact of drivers of the SDGs programmes such as information literacy skills cannot be overemphasised in other to realise the expected positive outcome of SDGs such as agricultural development, poverty alleviation programmes which ultimately engender economic development. This study revealed positive and significance impact of information literacy skill in relation to SDGs for agricultural development and poverty alleviation programmes for economic development.

Recommendations

1. The state ministry of information, mass media and other relevant orientation agencies should embark on vibrant awareness exercise with the rural areas in the state.
2. To realisethe benefits of the Sustainable Development Goals among the citizens of Borno state and Nigeria in general, factors for SDGs such as information literacy skill acquisition training should be given a top priority.
3. The agencies responsible for SDGs in the state, and Borno state ministry of information should visit the rural areas and evaluate their level of information literacy skills, this will guide them when providing SDGs information and programmes through the electronic media, especially the social media. Other agencies for realization of SDGs such as agricultural and food production should be given top priority in economic development policy drafts and implementation.

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