Awareness and Readiness On the Use of ICT for Sustainable Economic Development in Nigeria

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ABSTRACT

This study examined the awareness and readiness of the people on the use of ICT for sustainable economic development in Nigeria using three Local Government Councils in Oyo Township as a case study. A descriptive survey design was employed and a self-developed structured questionnaire was used to collect data from the respondents. The population of the study consists of all the peoples living within the three Local Government Councils in Oyo Township. An incidental random sampling technique was used to select one thousand (1000) respondents from the population of the study. Three research questions and two hypotheses were formulated for the study. Out of the 1000 questionnaires administered on the sample of the study, only 900 were returned. Data collected were analysed using simple percentage, Pearson correlation coefficient, and multiple regression analysis at 0.05 level of significant. The results of the study showed that 643 (71.4%) of the respondents fully aware of the use of ICT for sustainable economic development in Nigeria and 679 (75.4%) showed readiness to use of ICT for sustainable economic development in Nigeria. The results also showed that all the challenges affect the use of ICT for sustainable economic development in Nigeria. But, Poor implementation of ICT policies (87.3%), Poor Telecommunication Infrastructure (83.8%), Poverty (83.4%), Poor electricity supply (81.1), Resistant to change (76.4%) and insufficient qualified ICT personnel in our institutions (74.0%) are mostly affecting the use of ICT for sustainable economic development in Nigeria. Also the results indicated that there is positive significant relationship between the use of ICT and sustainable economic development in Nigeria (r=0.913). The study recommends that government should formulate and ensure proper implementation of ICT policies that will enhance the use of ICT for sustainable economic development in the country. Also, government should allocate sufficient funds for the procurement of standard ICT infrastructures and ensure that the allocated funds are release and use for the same purpose. Finally, governments should organise ICT skills training programme for their workers and other organisations should follow the same suit for their workers too.

Keyword: ICT, ICT Infrastructure, Mobile Phone, SED, Telecommunication

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1. INTRODUCTION

Information and Communication Technology (ICT) refers to technologies that pertain to the new science of collecting, storing, processing and transmitting information whereby information, computing, and telecommunication are converging (Samuel, 2007). According Sunday (2006), ICT cover Internet service provisions, telecommunications and information technology equipment and services, media and broadcasting, libraries and documentation centres,

commercial information provides, network-based information services, and other related information and communication activities. ICT represent a myriad of stand-alone media, including telephone and mobile telephony, radio, television, video, tele-text, voice information systems and fax, as well as computer-mediated networks that link a personal computer to the Internet (Samuel, 2007).

ICT plays a major role in all aspects of national life: in politics, in economic life, as well as in social and cultural development. It transforming lives of people, the way they do business, access information and services, communicate with each other, provides entertainment and has benefits relating to human rights by supporting freedom of expression and right to information (Samuel, 2007). Information and Communication Technology is a pervasive input to almost all human activities and breaks barrier to human development by providing content to knowledge, breaking barriers to economic opportunity by requiring less initial capital investment and by being more labour intensive than skill intensive (Samuel, 2007).

The term **'development'** has been defined as a comprehensive economic, social, cultural and political process which aims at the constant improvement of the well-being of the entire population and of the individuals on the basis of their active, free and meaningful participation in development process and in the fair distribution of benefits resulting there-from (Erhun, 2015). The dominant political response to challenges of the environment has long shifted from one of environmental protection laws and regulations to that of sustainable development. Sustainable development is a long term continuous development of society, aimed at satisfaction of humanity's need at present and in the future via rational usage and replenishment of natural resources, and preserving the earth for future generations (Erhun, 2015).

Vinceta (2014) argues that sustainable development means attaining a balance between environmental protection and human economic development and between the present and future needs. This means that equity in development and sectoral actions across space and time requires the integration of economic, social and environmental approaches towards development. Sustainable development is the process of judicious use and conservation of natural resources for the overall improvement in the quality of life for the present and future generations on long term basis (Erhun, 2015).

The concept of sustainable development was formulated as a welding tool as well as a framework for the realization of economic growth in an environmentally viable world. Three interdependent and mutually reinforcing pillars of sustainable development are recognized world-wide in the transition towards a sustainable society. These are economic sustainability, environmental sustainability and social sustainability. Within this concept, the environmental dimension plays a significant role, being the natural system which serves as the surrounding medium in which the social and economic systems are embedded. The environment is a condition for sustainable development, society is the ends for which development is undertaken and economy is the means to achieving that end. The maintenance of environmental structure is therefore crucial for long term economic development. Because life on earth is conditioned upon a healthy environment, the environmental pillar must of necessity be viewed as of utmost importance, providing the necessary foundation or stability for the economic and social pillars of sustainability (Erhun, 2015).

Sustainable Economic Development (SED) is economic development that attempts to satisfy the needs of humans but in a manner that sustains natural resources and the environment for future generations (Wikipedia). Sustainable Economic Development is therefore directly concerned with increasing the material standard of living of the poor at the grassroots level, which can be quantitatively measured in terms of increased food, real income, educational services, health care, sanitation and water supply, emergency stocks of food and cash, etc., and only indirectly concerned with economic growth at the aggregate, commonly national, level (Edward, 1987). In general terms, the primary objective is reducing the absolute poverty of the world's poor through providing lasting and secure livelihoods that minimise resource depletion, environmental degradation, cultural disruption, and social instability (Edward, 1987).

Sustainable Economic Development combines two ideas into a new concept, it connects the environment climate crisis with the opportunity for large scale economic prosperity, to assert that the imperative to address the environment climate crisis offers great opportunity for economic in the 21st century (Nixon and Weiss, 2011). The strategies of Sustainable Economic Development accelerate economic and employment growth and create sustainable business and community development through demonstrating on innovation, efficiency, conservation in use and reuse of natural and human resources which are the way towards more jobs, incomes, productivity, and competitiveness (Farid, 2015).

ICT have demonstrated the positive and significant impact on economic development by improving the business environment in rural areas. ICT provide access to market and business information, bring financial services literally to the hands of rural consumers, help local communities organize and link themselves, and, through the connection with others, exchange know-how and ideas (Onuoha and Chidinma, 2016). ICT can provide rural businesses with access to information (e.g. on price, market conditions or know how) as well as financial and non-financial services (e.g. business development services). In particular, it can be a major driver in enhancing access to agricultural financial services thereby directly contributing to improvements in agricultural productivity and food security. At the same time ICT generate new business opportunities and improve the business enabling environment by reducing transaction costs and improving the investment climate. By connecting rural areas more closely to national and global information, knowledge, or social networks, new mobile technology can motivate young entrepreneurs to stay in these regions (Onuoha and Chidinma, 2016).

Through ICTs people in rural areas can connect with the local, regional and national economy and access markets, banking/financial services and employment opportunities. ICTs also serve as a instrument of awareness creation and feedback giving rural people a voice in the nation's socio-political life. ICTs can act as a channel of delivery of e-Government services including health and education. ICTs collapse distance and time, overcoming geographic isolation and substituting for expensive travel and lost work time. For example, ICTs can facilitate information exchange, long-distance money transfers, tax returns and other governments business, even medical diagnosis. Broadly speaking, ICT enable real-time access to market information and transaction capability through telephony and the Internet effectively increase competition, allowing consumers to maximise their incomes and driving reduction in prices over time. The Internet and mobile phone can give farmers, fishermen, and other local producers access to market information for multiple, competing market places, enabling them to get the best prices for their goods. Mobile phone, the internet, and test messaging are all now tools of knowledge acquisition and political empowerment. But ICTs cannot meet development challenges alone, to fulfil their potential, ICTs require clean and consistent power, a robust, accessible and affordable connectivity network, technical literacy skilled users and support systems, functional markets, and supportive regulatory and policy frameworks (William, Beth and Robert, 2007).

Braga (1998) concludes that the countries with greater prospects of economic performance in the new economy are those that can rely on widespread access to communication networks; the existence of an educated labour-force and consumers; and the availability of institutions that promote knowledge creation and dissemination. The use of ICT to enhance economic development and transformation in Africa will entail addressing the impact of ICT on changing the structure of its African economy (composition of agriculture, industry and services), expanding economic and social development opportunities facilitating diversification, exploring options for building competitive advantages, facilitating efficient functioning and responsiveness of institutions (including markets) with a view to creating vibrant markets and institutions (Samuel, 2007). Datta and Agarwal (2004) point out that the economic benefits of ICT can be direct, through increases of employment and demand, and can also be indirect, notably through social returns. Lewin and Sweet (2005) note that the direct effects can come from the supply side, that is, the supply of telecommunication services.

This supply of telecommunication networks generates employment for manufacturers, administrators, network builders, system managers, and also employment through new retailing networks (Mihasonirina and Kangni, 2011). In African countries, the economic benefits of ICT are mainly indirect. Because prepaid services dominate the continent, selling the prepaid cards requires an effective retailing network of wholesalers, individual agents, and even informal sellers (Tcheng, Henri, Jean-Michel, Isabelle and Mouna, 2007). Tcheng et al. (2007) observe that in Africa, revenues from telecommunication services represented about 5 percent of GDP compared with only 2.9 percent in Europe.

ICT improve firms' productivity by allowing firms to adopt flexible structures and locations. ICT use improves market functioning and information flows, increases trade and arbitrage abilities, reduces transaction costs and facilitate price discovery. Mobile telephony allows expansion and access to financial services to previously underserved groups in developing countries. It reduces transaction costs, especially the costs of running physical bank branches. This increased access to financial services for underserved people helps narrow the financial infrastructure gap, especially in developing economies, where the costs of distance and time are very high for formal banking services. ICT favour better information flows, and improve access to credit and deposit facilities, allow more efficient allocation of credit, facilitate financial transfers, and boost financial inclusion which stimulate private investment, and hence economic growth (Mihasonirina and Kangni, 2011).

Investment in ICT contributes to overall capital deepening and therefore helps raise economic growth. Rapid technological progress in the production of ICT goods and services may contribute to more rapid growth in the ICT producing sectors. The greater use of ICT may help firms reduce their costs, enhance their productivity and increase their overall efficiency, and thus raise economic growth. Moreover, greater use of ICT may contribute to network effects, such as lower transaction costs, higher productivity of knowledge workers and more rapid innovation, which will improve the overall efficiency of the economy (Moradi and Kebryaee, 2016).

According to William, Beth and Robert (2007), the fundamental role of ICTs in modern economic growth and development include:

1. reduce transaction costs and thereby improve productivity
2. offer immediate connectivity- voice, data, visual-improving efficiency, transparency, and accuracy
3. substitute for other, more expensive means of communicating and transacting, such as physical travel
4. increase choice in the market place and provide access to otherwise unavailable goods and services
5. widen the geographic scope of potential markets, and
6. channel knowledge and information of all kinds

Several studies have analyzed the relationship between ICT and economic performance. For example, Hoon (2003) explored the impact of ICT investment on economic growth using a cross-country analysis based on data from 56 developing countries for the years 1970–1998 and found that ICT positively contributes to economic growth in the developing world. Ketteni (2006) has shown that total ICT capital has a nonlinear effect on total factor productivity growth. Jalava and Pohjola (2007)analysed the impacts of information and communications technology on output and labour productivity growth in Finland in 1995–2005. Information and communications technology (ICT) accounted for 1.87 percentage points of the observed labour productivity growth at the average rate of 2.87 per cent. The contribution from increases in ICT capital intensity was 0.46 percentage points. The rest is attributed to multi-factor productivity growth in ICT production, especially in telecommunications production. Moradi and Kebryaee (2016) investigated ICT investment on economic growth in a cross section of 48 Islamic countries using the data over the period 1995-2005. The findings shows that ICT investment has positive and significant effect on economic growth and ICT investment has a stronger influence on economic growth in the sub-sample of 24 countries that have relatively a higher ICT opportunity index.

Toyo and Ejedafiru (2016) examined utilization of Information and Communication Technologies (ICTs) for sustainable economic development in Nigerian. This study was carried out on 400 respondents consisting of 150 academic staff and 250 postgraduate students of Ambrose Alli University, Ekpoma, Edo State. The result of the study showed that ICTs are significant for the sustainable economic development in Nigerian as they help to improve education, creates wealth, alleviates poverty; create jobs, and enhance global competitiveness among others.

1.1 Objectives of the Study

This study found out the awareness and readiness of the people on the use of ICT for sustainable economic development in Nigerian. Specifically, the study investigated:

1. The awareness of the people on the use of ICT for sustainable economic development and their readiness to use ICT for sustainable economic development in Nigerian.
2. Relationship between ICT usage and sustainable economic development in Nigerian.
3. Challenges facing the use of ICT for sustainable economic development in Nigerian.
4. The level of prediction of peoples' readiness on the use of ICT for sustainable economic development in Nigerian by the following demography variables such as category of the respondent, age, educational qualification and gender.

1.2 Research Questions

5. What is the level of the people' awareness on the use of ICT for sustainable economic development?
6. What is the level of the people' readiness to use ICT for sustainable economic development?
7. What are the challenges facing the use of ICT for sustainable economic development?

1. Hypotheses

1. There is no significant relationship between the use of ICT and sustainable economic development in Nigeria.

2. The use of ICT for sustainable economic development does not significantly affected by the following challenges (i.e. Poor Telecommunication Infrastructure, Poor Electricity Supply, Unavailability of National ICT Infrastructure, Insufficient Qualified ICT Personnel in our Institutions, Poor Implementation of ICT Policies, Security Problem, Poor Funding, High Cost of ICTs Equipment, Resistance to Change and Poverty)

2. RESEARCH METHODOLOGY

The descriptive research design of the survey type was employed in the study. The population of the study consists of peoples living within the three local governments' area in Oyo Township (i.e. Atiba Local Government, Oyo West Local Government and Oyo East Local Government). An incidental random sampling technique was used to select one thousand (1000) respondents from the population. The respondents are categorised as students, government/private workers, traders, and self-employer. A self- designed structure questionnaire was used to collect data. The questionnaire was tagged "Awareness and Readiness on the use of ICT for Sustainable Economic Development in Nigeria". The questionnaire was made up of four sections. Section A focused on demographic data which includes category of the respondent, age, educational qualification and gender. Section B focused on Awareness on the use of ICT for sustainable economic development in Nigeria. The section contained eight (8) items and the response mode are "SA","A", "D" and "SD". Section C contained eight items (8) on Readiness to use ICT for sustainable economic development in Nigeria and the response mode are "SA","A", "D" and "SD". Section D of the questionnaire which contained ten (10) items addressed the challenges facing the use of ICT on sustainable economic development in Nigeria and the Likert response mode of "SA","A", "D" and "SD".

The face and content validity of the questionnaires was ascertained by experts in Test and Measurement. A sample of eighty respondents was selected apart from the selected sample and the questionnaire was administered on them to carryout test-retest analysis. The reliability coefficient was calculated to be 0.85 using the correlation coefficient on the data collected. The instrument was administered personally by the researcher on the sample respondents. Only 900 copies of the completed questionnaire were retrieved from the sample respondents to give 90% return rate. Therefore, nine hundred (900) questionnaires were used and analyse with Statistical Package for Social Sciences (SPSS) package 20.0. In this study, the statistical techniques adopted are simple percentage, frequency count, Pearson correlation coefficient, and regression analysis at 0.05 level of significant.

3. RESULTS

Table 1 showed the demographic information of the respondents. The table indicates that 24.1% were students, 30.7% were government workers, 15.3% were private workers, 10.3% were traders while 19.6% were self-employed. In terms of gender, 60.1% were male and 39.9% were female; this shows that male was more represented than female participants. With regards to age of the participants, the table shows that older participants were more represented than the younger ones (i.e. 24.0%, 29.4% and 13.0% is more than 15.8% and 17.8%). Finally, in terms of educational qualification of the respondents, 13.9% have SSCE, 11.0% have trade craft certificate, 21.6% have either NCE or OND, 26.4% have either bachelor degree or HND while 17.3% have master degree and 9.8% have doctoral degree.

Table 1: Demographic data of the respondents (n=900)

Demographic	Frequency	Percentage
Category of the Respondent		
Students	217	24.1
Government Workers	276	30.7
Private Workers	138	15.3
Traders	93	10.3
Self-Employed	176	19.6
Age		
18-25 years old	142	15.8
26-33 years old	160	17.8
34-41 years old	216	24.0
42-49 years old	265	29.4
50 years old and above	117	13.0
Educational Qualification		
SSCE	125	13.9
Trade Craft Certificate	99	11.0
NCE/OND	194	21.6
B.Sc/ B.Ed/B.A/B.TECH/HND	238	26.4
M.Sc/M.Ed/M.A/M.TECH	156	17.3
P.hD	88	9.8
Gender		
Male	541	60.1
Female	359	39.9

Source: Field Survey, 2017

Research Question 1
What is the level of the people' awareness on the use of ICT for sustainable economic development?

Table 2 indicates the responses of the respondents' level of awareness on the use of ICT for sustainable economic development, items such as "I am aware that ICT reducing poverty and create job opportunities" 77.2%, "I am aware that ICT generate new business opportunities and improve the business enabling environment by reducing transaction costs and improving the investment climate

" (70.8%), "I am aware that ICT enable people in rural areas to connect with the local regional and national economy and access markets, banking/financial services and employment opportunities

" (87.9%), "I am aware ICT affect the performance, growth, expansion and new products/services of any business or organisation" (57.2%) and "I am aware that ICT enable us to understand our environment so that we can better protect it for future generation" (63.7%). The result indicates that the average percentage level of awareness is 71.4%, which is means that the respondents are aware of the use of ICT for sustainable economic development in Nigeria.

Table 2: Peoples' awareness on the use of ICT for sustainable economic development (n=900)

Items	Frequency & Percentage			
	SA	A	D	SD
I am aware that ICT reducing poverty and create job opportunities	364(40.4)	331(36.8)	119(13.2)	86(9.6)
I understand the fact that ICT help local communities organise and link themselves with others in the city to exchange ideas	298(33.1)	231(25.7)	187(20.8)	184(20.4)
I am aware that ICT generate new business opportunities and improve the business enabling environment by reducing transaction costs and improving the investment climate	335(37.2)	302(33.6)	146(16.2)	117(13.0)
I have basic understanding that through ICT tele-centers, Africa good and services can be sell using the Internet	180(40.2)	229(25.4)	312(34.7)	179(19.9)
I am aware that ICT enable people in rural areas to connect with the local regional and national economy and access markets, banking/financial services and employment opportunities	444(49.2)	349(38.7)	44(4.9)	63(7.0)
I am aware ICT affect the performance, growth , expansion and new products/services of any business or organisation	210(23.3)	305(33.9)	179(19.9)	206(22.9)
I understand that ICT help firms to reduce their transaction cost, enhance their productivity of knowledge workers and more rapid innovation which will improve the overall efficiency of the economy	253(28.1)	291(32.3)	205(22.8)	151(16.8)
I am aware that ICT enable us to understand our environment so that we can better protect it for future generation	331(36.8)	242(26.9)	224(24.9)	103(11.4)

Source: Field Survey, 2017

Research Question 2
What is the level of the people' readiness to use ICT for sustainable economic development?

Table 3 indicates the responses of undergraduate students' level of readiness to use mobile health for healthcare services, items such as I am interested in using Internet and mobile phone to access market information to get best prices for the goods (82.2%), I will like to use mobile phone, Internet and text message for knowledge acquisition and political empowerment (34.2%), I am eager to know about how ICT widen the geographic scope of potential market and channel knowledge and information of all kinds (88.8%), I will like to use ICT to facilitate information exchange, long-distance money transfer, and other government business (78.0%), I am willing to undergo proper training on how to use ICT for sustainable economic development (87.0%), I will use ICT to access agricultural financial services so as to improve agricultural productivity and food security (81.1%), I am prepared to use the Internet to search and download information about unavailable goods and services (69.9%) and I will like to use mobile phone and Internet to have real-time access to market information in order to maximize incomes and driving reduction in prices over time (81.9%). The result indicates that the average percentage level of readiness is 75.4%, which is means that the respondents are ready to use ICT for sustainable economic development in Nigeria.

Table 3: Peoples' readiness to use ICT for sustainable economic development (n=900)

Items	Frequency & Percentage			
	SA	A	D	SD
I am interested in using Internet and mobile phone to access market information to get best prices for the goods	335(37.2)	405(45.0)	95(10.6)	65(7.2)
I will like to use mobile phone, Internet and text message for knowledge acquisition and political empowerment	174(19.3)	134(14.9)	348(38.7)	244(27.1)
I am eager to know about how ICT widen the geographic scope of potential market and channel knowledge and information of all kinds	406(45.1)	393(43.7)	66(7.3)	35(3.9)
I will like to use ICT to facilitate information exchange, long-distance money transfer, and other government business	251(27.9)	451(50.1)	138(15.3)	60(6.7)
I am willing to undergo proper training on how to use ICT for sustainable economic development	372(41.3)	411(45.7)	72(8.0)	45(5.0)
I will use ICT to access agricultural financial services so as to improve agricultural productivity and food security	291(32.3)	439(48.8)	102(11.3)	68(7.6)
I am prepared to use the Internet to search and download information about unavailable goods and services	240(26.7)	389(43.2)	139(15.4)	132(14.7)
I will like to use mobile phone and Internet to have real-time access to market information in order to maximize incomes and driving reduction in prices over time	376(41.8)	361(40.1)	142(15.8)	21(2.3)

Source: Field Survey, 2017

Research Question 3
What are the challenges facing the use of ICT for sustainable economic development?

Table 4 shows the responses of the undergraduate students on the challenges facing the use of mobile health for health care services. Their responses indicated that all the challenges affect the use of ICT for sustainable economic development. But, Poor implementation of ICT policies (87.3%), Poor Telecommunication Infrastructure (83.8%), Poverty (83.4%), Poor electricity supply (81.1), Resistant to change (76.4%) and Insufficient qualified ICT personnel in our institutions (74.0%) are mostly affecting the use of ICT for sustainable economic development in Nigeria. The result indicates that the average percentage level of the effect of these challenges on the use of ICT for sustainable economic development in Nigeria is 74.3%, which is very high; therefore, both government and non-government agencies should try as much as possible to avert most of these problems.

Table 4:Challenges facing the use of ICT for sustainable economic development (n=900)

Items	Frequency & Percentage			
	SA	A	D	SD
Poor Telecommunication Infrastructure	329(36.6)	425(47.2)	81(9.0)	65(7.2)
Poor electricity supply	283(31.4)	447(49.7)	102(11.3)	68(7.6)
Unavailability of National ICT infrastructure	240(26.7)	381(42.3)	147(16.3)	132(14.7)
Insufficient qualified ICT personnel in our institutions	261(29.0)	405(45.0)	171(19.0)	63(7.0)
Poor implementation of ICT policies	423(47.0)	363(40.3)	44(4.9)	70(7.8)
Security problem	301(33.4)	280(31.1)	158(17.6)	161(17.9)
Poor funding	253(28.1)	292(32.4)	187(20.8)	168(18.7)
High-cost of ICTs equipment	357(39.7)	211(23.4)	228(25.3)	104(11.6)
Resistant to change	331(36.8)	356(39.6)	130(14.4)	83(9.2)
Poverty	376(41.8)	374(41.6)	129(14.3)	21(2.3)

Source: Field Survey, 2017

Hypothesis 1: There is no significant relationship between the use of ICT and sustainable economic development in Nigerian

Table 5 shows the Pearson correlation coefficient of relationship between the use of ICT and sustainable economic development in Nigeria. The result (0.913) obtained from the analysis shows the correlation is significant at the 0.01 level of significance. Therefore, the null hypothesis is not accepted. That is, there is significant positive relationship between the use of ICT and sustainable economic development in Nigeria.

Table 5: Pearson Correlations Coefficient of the relationship between the use of ICT and sustainable economic development in Nigeria (n=900)

		ICT USAGE	SUSTAINABLE ECONOMIC DEVELOPMENT
ICT USAGE	Pearson Correlation	1	.913**
	Sig. (2-tailed)		.000
	N	900	900
SUSTAINABLE ECONOMIC DEVELOPMENT	Pearson Correlation	.913**	1
	Sig. (2-tailed)	.000	
	N	900	900

**. Correlation is significant at the 0.01 level (2-tailed).
Source: Field Survey, 2017

The first stepwise regression analysis (Table 6) is used to test hypothesis three. The model explains approximately 86% of the variance of the challenges facing the use of ICT for sustainable economic development in Nigeria (adjusted R^2=.857). The results also indicated that Poor Telecommunication Infrastructure (β=.178, p<0.05), Poor Electricity Supply (β=.153, p<0.05), Unavailability of National ICT Infrastructure (β=.209, p<0.05), Insufficient Qualified ICT Personnel in our Institutions (β=.106, p<0.05), Poor Implementation of ICT Policies (β=.231, p<0.05), Security Problem (β=.100, p<0.05), Poor Funding (β=.137, p<0.05), High-cost of ICTs Equipment (β=.062, p<0.05), Resistance to Change (β=.069, p<0.05) and Poverty (β=.296, p<0.05) significantly affects the use of ICT for sustainable economic development in Nigeria. The F Value is equal to (539.419) and hence is significant at (p<0.05) and this assures that these challenges significantly affects the use of ICT for sustainable economic development in Nigeria. Therefore, the hypothesis which stated that the use of ICT for sustainable economic development in Nigeria does not significantly affected by the following challenges (i.e. Poor Telecommunication Infrastructure, Poor Electricity Supply, Unavailability of National ICT Infrastructure, Insufficient Qualified ICT Personnel in our Institutions, Poor Implementation of ICT Policies, Security Problem, Poor Funding, High Cost of ICTs Equipment, Resistance to Change and Poverty) is not accepted.

Hypothesis 2: The use of ICT for sustainable economic development does not significantly affected by the following challenges (i.e. Poor Telecommunication Infrastructure, Poor Electricity Supply, Unavailability of National ICT Infrastructure, Insufficient Qualified ICT Personnel in our Institutions, Poor Implementation of ICT Policies, Security Problem, Poor Funding, High Cost of ICTs Equipment, Resistance to Change and Poverty)

Table 6: Regression Analysis to test significant effect of challenges facing the use of ICT for sustainable economic development in Nigeria (n=900)

Model	B	Std. Error	Beta	t	Sig. value
1 (Constant)	17.585	.708		24.842	.000
Poor Telecommunication Infrastructure	1.233	.063	.561	19.718	.000
Poor Electricity Supply .	711	. 063	.296	11.306	.000
Unavailability of National ICT Infrastructure	.742	.103	.247	7.194	.000
Insufficient Qualified ICT Personnel in our Institutions	.439	.058	.201	7.578	.000
Poor Implementation of ICT policies	1.071	.068	.473	15.853	.000
Security problem .	190	.054	.093	3.506	.001
Poor funding	.463	.093	.218	4.986	.000
High-cost of ICTs equipment	.653	.090	.313	7.223	.009
Resistance to change	.326	.151	.069	2.155	.031
Poverty	1.685	.112	.296	15.081	.000

R	R^2	Adjusted R Square	Std. Error of the Estimate	F change	Sig. F change
.927	.859	.857	1.672	539.419	.000

Source: Field Survey, 2017

4. DISCUSSION

The results of the study in Table 2 reveals that the respondents are aware of the use of ICT for sustainable economic development in Nigeria, their responses shows that they are familiar and have basic understanding about the use of ICT. Also, results from Table 3 shows that they are willing and interested in using ICT for sustainable economic development. The reasons for this result is that nowadays, majority of the peoples living in both rural and urban region of Nigeria used mobile phone and other ICT tools to meet their needs and satisfy their aspirations for better life. Also, most of the Nigerians' people used ICT to promote values that encourage consumption standards that are within the bounds of the ecological of the Nigeria.

The findings as shown in Table 4 and 6 revealed that the challenges that facing the use of ICT for sustainable economic development are mobile health for healthcare services are Poor Telecommunication Infrastructure, Poor Electricity Supply, Unavailability of National ICT Infrastructure, Insufficient Qualified ICT Personnel in our Institutions, Poor Implementation of ICT Policies, Security Problem, Poor Funding, High Cost of ICTs Equipment, Resistance to Change and Poverty. This result collaborate the findings of Andrew (2016) which founds that Poor electricity power supply, Unavailability of national ICT infrastructure, Insufficient qualified ICT personnel in our institutions, Poor implementation of ICT Policies, Security problem and Poor funding affect the use of ICT for sustainable economic development in Nigeria. Also, the findings of Onuoha and Chidinma (2016) and Toyo and Ejadafiru (2016) identified some challenges facing the use of ICT for sustainable economic development as Poor Telecommunication Infrastructure, High cost of ICTs Equipment, Poverty, Resistance to change, poor funding, local content, Internet access, Unavailability of Electricity and Low Literacy levels and lack of ICT personnel.

Lastly, the findings in Table 5 showed that there is significant relationship between the use of ICT and sustainable economic development in Nigeria. This results indicated that the use of ICT enhance and promote the sustainability of economic development in Nigeria. The finding of this study corroborates the findings of Anyasi, Onianwa, Akpadia, Idiakheua and Ebagba (2012) which observed the powerful role of ICT in sustainable economic development. Also, this finding is in consonant with the findings of Kadir, Kadir, Yusuf and Rasheed (2014) which revealed that indeed Information and Communication Technology is a true instrument for promoting sustainable education development as it has helped to improve the level of education and assist in interpersonal relationship and enhance access to information.

5. CONCLUSION

It is quite imperative to note that ICTs are veritable tool that can be used to promote sustainable economic development in Nigeria. The results of the study indicated that Nigerians' were fully aware the use of ICT for sustainable economic development and they were also ready to use ICT for sustainable economic development. For instance, 75.4 percent of the peoples imagine themselves using ICT for sustainable economic development while 71.4 percent of them are aware of the use of ICT for sustainable economic development. This finding provides promising indications and clues that Nigerians' awareness and readiness for the use of ICT for sustainable economic development is very high. Even though the use of ICT promote sustainable development for the future of the people but governments must take note that technology integration takes time; time for development, time for testing and implementation, time for training of the personnel to be skillful and time for the peoples to adapt to the new system.

The study identified various challenges facing the use of ICT for sustainable economic development which both the government and other non-government agencies should find solution to avert these problems so as to enable the effective use of ICT.
By reducing the costs of information sharing, improving its timely availability and providing the opportunities to create networks between people sharing particular interests or information needs, ICTs have the potentials to contribute to the improvements of socio-economic conditions in developing countries. This is possible when government, people and the media are working as a team in harnessing the potentials of ICTs (Toyo and Ejedafiru, 2016). When these resources are implemented in various institutions, organizations and corporations in Nigeria the country would have achieved a high level of human capital development (Toyo and Ejedafiru, 2016).

6. RECOMMENDATIONS

Based on the findings of this study, the following suggestions are recommended:

1. Government should formulate and ensure proper implementation of ICT policies that will enhance the use of ICT for sustainable economic development in the country.
2. Government should improve electricity generation and distribution in Nigeria.
3. Government should improve the provision of telecommunication infrastructure in the country.
4. Computer literacy awareness programme should be organised by the government, organisation and institutions in all part of the country.
5. Governments should organise ICT skills training for their workers and other organisations should follow the same suit for their workers too.
6. Government should allocate sufficient funds for the procurement of standard ICT infrastructures and ensure that the allocated funds are release and use for the same purpose.

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