European Journal of Business and Management
ISSN 2222-1905 (Paper) ISSN 2222-2839 (Online)
Vol.5, No.10, 2013

An Exploratory Evidence of Youth's ICT empowerment in Nigeria

Baba HAFIZ[1*] Jamal Abdul Nassir SHAARI[2] , Adamu Ibrahim Saleh[3]
1. Faculty of Economics and Business, Universiti Malaysia Sarawak (UNIMAS),
2. Faculty of Economics and Business, Universiti Malaysia Sarawak (UNIMAS),
3. Abubakar Tatari Ali Polytechnic, Bauchi State Nigeria
*Email: babahafiz@yahoo.com

Abstract
The new ICT revolution has now broadened the horizon of the opportunities among nations, organization, institutions and individuals giving hopes to compete with their counterparts all over the world. It has been seen as an important vehicle to propel individual to greater height as the world moves further into the knowledge economy in this 21st century. It has been acknowledged that the information revolution is a powerful force with enormous benefits in socio-economic and political developments. Such benefits include job creation, increase in the stock of technologies and skills, ease of communication, expansion of trade, etc. particularly in developing countries. Against this background scale were source from literature and focus group analysis using 5 points likert scale. The questionnaire items have 65 indicators / constructs with the exception of demographic questions reflecting the relevant variables. An exploratory factor analysis was run on 389 valid responses from 3 geo-political zones in Bauchi state, Nigeria within the ages of 18-35 years. Using SPSS version 16 to check skewness and kurtosis. Utilising the maximum likelihood procedure which was followed by Varimax, rotation to get a better understanding of the factor structure.
Keywords: Information and Communication Technologies (ICTs), Empowerment, Poverty, and Nigeria.

1. Introduction
It is an established fact that major sectors of the World's economy are already utilizing the capacity of information technology to improve life generally. It is common knowledge that globalization brought about by information and communication technology (ICT) has reduced the whole World to village without boundaries or borders. ICT has been acknowledged as a powerful engine of development. The enormous economic benefits, real and potentials of ICT are not in doubt, especially in the industrialized economies where the revolution is rooted (Rayport and Jaworski, 2002). The 21st century, started with the awareness that the new revolution variously called information revolution and IT revolution has come to stay. Increasingly, it is also being realized that the revolution is presenting daunting challenges which must be frontally tackled in order to maximize both potential and real benefits emanating from it (Olatukun, 2009; Olaoye, 2010). The challenges are at personal, societal and global levels. For instance learning, understanding and operating within the action frame of a new vocabulary, if not an entirely new language, that is peculiarly associated with information and communication technology (ICT), is the bedrock of the IT revolution. The new ICT revolution has now broadened the horizon of the opportunities among nations, organization, institutions and individuals giving hopes to compete with their counterparts all over the world as observed by Collins, et al (2002). It has been seen as an important vehicle to propel individual to greater height as the world moves further into the knowledge economy in this 21st century. Empirically, studies have confirmed that ICT revolution can strengthen pillars of development, poverty reduction and this is where it matters most in Nigeria (UNDP-APDIP Report 2004); Ebebe, (2002). Ingwe and Judith (2008) stated that within barely 15 to 20 years, information and communication technologies (ICTs)-driven new digital economy and high competition for global market share has engendered hunger for knowledge as one of the main drivers of economic development factor for cities, states, nations and organizations in advanced nations.
The demands for high technological skilled workers are needed in the workforce in the 21st century. This has created a lot of problems for the country because not everyone is literate in ICT skills and most youths have no access to computer. In general, most of the school students are not exposed to the ICT skills and training and very limited students and youth have the access to computer knowledge. This is one of the factors that influence poverty and the government should think about how to improve the situation. As it is now, there are some efforts being carried out but yet to be seen and not much has been achieved. There are lots to be done to improve the situation if the government wants the economy to be better and the poverty rate to go down. The youths between 18 -35 years of age are mostly the victims of unemployment. Accordingly, ICTs revolution has greater

opportunities and impetus to develop and empower people in many ways. The new millennium and indeed the 21st century, we have no choice but to upgrade ourselves in the knowledge and skills of ICT.

Based on Ebebe's view (2002), the information revolution is not only said to be ubiquitous even though the intensity and impact may not be the same everywhere but it is also credited with enormous benefits, real and potential, that are capable of transforming any society. It is the information revolution that has indeed actualized the fairy tale of global village, spawned globalization, opened up new vistas in the gap between the rich and the poor and set a new competitive environment. He further stressed that ICT has become the defining force of socio-economic development beginning from the late 20th century, influencing not only jobs, industrial output, the relative economic performance of nations, but also the way people live and work as well as the future of work, education and training.

Indeed, the information society has created a new order. It has created what is variously called the information society, the knowledge society, the knowledge-based economy and digital economy (Ebebe, 2002).

ICT has proven to be increasingly fundamental for social and economic development. Access to basic ICT infrastructure is a key to increasing the flow of information and improving communication and by extension increasing possibilities and opportunities. It has proven that, ICT as a greater leveler between the developed and the developing countries of the world. For example in this case are India, South Korea and Egypt. There is an explosion in India's InfoTech industry. Indian experts are supplying the hi-tech industries of Europe and US with advanced software's. It is said that as many as 700,000 new jobs are being created in India annually. Information Technology is also helping Indian reverse the brain-drain syndrome today. One major reason that could account for this phenomenal growth is the empowerment of its citizens, especially youths, through diverse ICT skill programs and training (*Zenith Economic Quarterly*, 2008).

2. Definition of Information and Communication Technologies (ICTs)

Information and Communication Technologies according to Parliamentary Office of Science and Technology (2006) could be defined as any technology that facilitates communication and assist in capturing, processing and transmitting information electronically.

Akunyili (2010) view ICTs as an umbrella term that covers all technical means for processing and communicating information. In her view, the convergence of Information Technology (IT) and telecommunication technology gave birth to ICT. Practically, ICT finds expression in digital technology and all its uses and variants including the computer, the internet, mobile phony, the different electronic application (e.g. e-banking, e-commerce, e-clinic etc.), digital media and broadband technology. Some commonly used ICTs in many developing countries include radio, TV and print media. Modern ICTs such as soft wares, internet, fax, emails etc. have become available to many countries Worldwide in recent years and they are effective means of communicating knowledge and information to rural communities (Richardson, 1997; Kweku, 2006).

In general, empirical evidence from studies carried in many countries shows that ICTs may have several impacts (Kramner, Jenkins & Katz, 2007). Again, ICTs now provide developing nations with unprecedented opportunity to meet vital development goals such as poverty reduction, empowerment, basic health care and education, far more effective than before. Those nations that succeeded in harnessing the potential of ICTs can look forward to greatly expand economic growth, dramatic improvement in human welfare and stronger form of democratic governance (Kofi, 1997). World Bank (2002 cited in IICD, 2006), also takes the position that "Information and Communication Technologies are the key input for economic development and growth". From the previously mentioned statement, it is very clear that the transformative role of ICTs cannot be over emphasize as it impacts on every facet of lives and economy in general. From the view ICT refers to the range of technologies that can be applied in the process of collecting, storing, editing retrieving and transfer of information in various forms. This definition implies that a broad range of technological equipment's such as computer, internet, mobile phones, storage device, and the World Wide Wave etc. which are used for exchange among people for different purposes. By these descriptions of the components of ICTs, it should be clear why ICTs are considered a more robust and all-encompassing phenomenon than the popular narrowly held conception of mere application of computers in human activities.

However, Chen and Kee (2005), describe that, ICTs are the back bone of the knowledge economy in recent years have been recognize as an effective tool for promoting poverty reduction, health, education, economic growth, and sustainable development. The fact is that the advancement of ICTs is both an opportunity to overcome inherent and historical disabilities in the economy and a challenge to ensure that developing countries like Nigeria

are not left even behind the developed World. Liverpool (2002) view that ICT has already invaded and dominated all paces of our lives in the developed World; It is invasion in to the system in most developing World and in Africa in particular has been painfully slow. But the fact is that ICT represent an opportunity to those who can respond to the new paradigm and a threat to those who cannot. Manjulika and Reddy (2002), reported that access to ICT varies enormously from continent to continent and from country to country. This is particularly evident when comparing developed and developing countries-representing a stark digital divide.

From the studies carried out in Brazil, Cambodia and Mexico by Judith M, Antonio J, & Luis H (2008), it was found that for disadvantage youth, ICT can be particularly helpful in expanding employment opportunities. However, the increased need for ICT skills may widen social and economic gaps because marginalized groups may not have the same access to ICTs as higher income groups.

In the study conducted by Olaoye (2010), on globalization ICT and economic empowerment of women in Nigeria cites, ICT has proven to be increasingly fundamental for social and economic development. Access to basic ICT infrastructure is a key to increasing the flow of information and improving communications and by extension increasing the flow of information and opportunities. ICT has been confirmed as the greatest leveler between the developed and the developing nations of the world. A good example in this case is India. India's economy is basically IT driven and it has attained, through this means, the position of the fourth biggest economy in the world as at 2007 (*Zenith Economic Quarterly*, 2008). One major reason that account for this development is the empowerment of its citizen, through diverse ICT programs and training.

3. Historical and status report of ICT in Nigeria.

In Nigeria, the ICT space is still an infant– with a clearly fast-paced telecommunication sector and a growing (albeit underserved) information technology sector– reports often citing Nigeria's telecommunication market as one of the fastest growing globally (Internet World Statistics, 2005 cited in ICTs in Nigeria report, 2007). The Nigerian telecommunications industry is now over 100 years old, but it was only in 1999 that the National Policy on Telecommunications was launched almost or century later. A National Policy on Information Technology followed in 2001, along with the establishment of the National Information Technology Development Agency under the Federal Ministry of Science and Technology (Dada and Sesan, 2003). Nigeria is also one of the countries in Africa that has benefited from support from the United Nations Economic Commission for Africa in the area of National Information and Communication Infrastructure (NICI) policy, even though the discussion on the need to harmonize the various aspects of the nation's ICT space met with initial skepticism and is only now being discussed at the level of a national consultative group that is set to deliver an ICT for Development (ICT4D) Strategic Document – spurred on by Nigeria's participation in the World Summit on the Information Society process, which helped shed more light on the need for Nigeria to benefit from the undeniable convergence that has brought information technology, telecommunications and content together for good.

In August, 2006 the Federal Government of Nigeria set up a 26-man Task Force in a bid to establish and harmonize the ICT sector in Nigeria (Sesan, 2007) reported. The Task Force was saddled with the responsibility of restructuring government institutions and organizations in the telecommunication and information technology sector in Nigeria. It is worthy of note that to date, the nation's telecommunication sector has shown leadership in the nation's ICT growth. In December 2000, Nigeria had 450,000 connected fixed lines, no connected digital mobile line, 1 national career, 18 operating Internet Service Providers, 9 active licensed fixed-line operators, and 1 licensed mobile line operator (Ndukwe, 2005). In the same period, Nigeria had 200,000 internet users (Internet World Statistics, 2005), even though many experts disagree with the figures. The reason for the disagreement is not far from the fact that there are always multiple users for public terminals in the popular cybercafés that dot the entire internet landscape of Nigeria, especially in the major cities across the various regions of the country. For example, a computer system in an average cyber-café in cities and urban areas is known to be used by as many as 15 people daily.

In March 2004, the figures grew to become 888,854 connected fixed lines, 3.8 million connected digital mobile lines, 2 national careers, 35 operating Internet Service Providers, 30 active licensed fixed-line operators, and 4 licensed mobile line operators. In December 2004, Nigeria had 1.5 million internet users, a penetration rate of 1.3% and constituted about 5.6% of the total number of African internet users. Africa itself only boasts of 1.5% of global internet users even though it has 14% of the world's inhabitants. Private investment in ICTs also rose from an almost zero value to about $4 billion between 1999 and 2003 (Ndukwe, 2005; Internet World Statistics, 2005).

Summarily, Nigeria's ICT space has improved significantly from 400,000 lines in 1996 to over 14 million lines in 2005 owing to independent regulation through the Nigerian Communications Commission (N.C.C.), private sector participation, and broadened competition. Tele-density improved from 0.4% in 1996 to 3.92% in March 2004, several towns and cities estimated at 48% of the population and 18% of the land mass have potential access, grown from one player (monopoly) to hundreds of active players, and exceeded minimum ITU recommended tele-density of 1%. However, the most recent figures published collaborative survey conducted by the Nigerian Communications Commission (NCC), the Central Bank of Nigeria (CBN) and the National Bureau of Statistics (NBS) reveal that even with the evident growth in ownership of radio, television, mobile phones, fixed phones, computers and Internet access, a lot more Nigerians have access to these ICT facilities.

4. Development of ICT in Nigeria

In Nigeria, information and communications technologies (ICTs), including the Internet, are generating changes in markets, private and public sectors and economies in the more and less developed world. There has been a large wave of investment over the past decade in ICT for development and some significant part of this has been aimed at poor people both in terms of bringing ICT access poor communities, and in using ICTs in many other ways which support poverty reduction (Ndukwe, 2005).

The most effective route to achieving substantial benefit with ICTs in development programs is to concentrate on re-thinking development activities by analyzing current problems and associated contextual conditions, and considering ICT as just one ingredient of the solution. This implies an approach to developing strategies for information systems and technology that are derived from and integrated with other components of the overall development strategy.

5. Methodology

The research was conducted among 386 employed and unemployed youth's between 18-35 years old in Bauchi State, Nigeria from the three geo-political zones present in the location of the study areas of the state (South-Bauchi with population estimated as 493,810 and total land mass of 3,687 km sq. North-Katagum whose population estimate was 375,970 and total landmass of 4,625 km sq. and Central-Ningi population estimated was 295,970 with total landmass of 1,436 local government (NPC, 2006 & FOS, 1987).

The questionnaire items have 65 indicators / constructs with the exception of demographic questions reflecting the relevant variables adapted from previous studies. The variables are divided into 9 broad categories related to ICTs, ICT training, Gain skill and knowledge, material cognitive, perceptual, relational, technological and status changes. The questionnaire was developed using 5-point Likert Scale, ranging from (1= strongly disagree) to (5=strongly agree).

After data had been collected from the respondents, editing of the data was undertaken in order to ensure the omission, completeness and consistency of the data (Zikmund, 2003 and Sekaran, 2000). Out of 500 questionnaires distributed during the survey and 420 were returned, 84% of response rate. 389 respondents were identified and selected as representative sample size after series of screening.

6. Analysis and Discussion

A number of descriptive statistical analyses were conducted to assess normality of distribution and identify outliers (Hair *et al.,* 1995; Tabachnick and Fidell 2001). There were no case of missing data therefore; the scale data was accessed to determine normality of distribution. This is based on the assumption that factor analysis requires variables to be normality distributed. It was necessary to check the distribution of variables to run this analysis (Hair *et al.,* 1995; Tabachnick and Fidell 2001; Kline, 2005). Using SPSS version 16 to check skewness and kurtosis, it was indicated that the absolute values were within recommended levels. All the 65 items / indicators of the questionnaires were subjected to factor analysis based on 389 respondents, utilizing the maximum likelihood procedure which was followed by a Varimax rotation. This is important in order to get a better understanding of the factor structure. The decision is to include a variable in a factor was based on factor loading greater than 0.30 (Hair *et al.,* 1998). From the EFA ran for ICTs indicators it revealed that, the KMO was .919, Barllett's Test of Sphericity Approx. Chi-square was 2.016E3. All elements in the diagonal matrix are greater than 0.5 meaning that the sample is adequate with Total Variance Explained of 57.360% at 9 components or factors. The significance level was significant at P< .000. On EFA ran on ICTTR indicators shown KMO values of .862, Barlett's Test of Sphericity Approx Chi-square of 2.969E. All elements in the diagonal matrix are greater than 0.5 indicated that the sample is adequate with Total Variance explained of 68.153% at 7 components or factors. The significance level showed significant at P< .000. An outlier was shown i.e. ICTTR7 which was

deleted in the second EFA. After ICTTR7 was deleted the KMO values .859, Barlett's Test of Sphericity Approx Chi-square was 2.941E. All elements in the diagonal matrix are greater than 0.5 indicates sample is adequate. Total variance explained was increased to 78.218% at 6 components or factors. The significant level indicates significant at P< .000. From EFA ran on GSK indicators revealed KMO values of .931, Barlett's Test of Sphericity Approx Chi-square of 3.670E3. All elements in the diagonal matrix are greater than 0.5 meaning that sample is adequate. Total variance explained was 77.977% at 7 components or factors. The significant level showed significant at P< .000 and an outlier was shown i.e. GSK3 which was deleted in the second EFA. After GSK3 was deleted the KMO was .931, Barlett's Test of Sphericity Approx Chi-square was 3.622E3 and all elements in the diagonal matrix are greater than 0.5 meaning sample is adequate. Total variance explained was increased to 89.319% at 6 components or factors. The significant level indicates significant at P< .000.

However, from the EFA ran on MTC, STC, RLC, CGC, PPC and TCC indicators revealed KMO valued of .930, Barlett's Test of Spericity Approx Chi-square of 1.110E4. All elements in the diagonal matrix are greater than 0.5 which indicates the sample is adequate. Total variance explained was 33.914% at 42 components or factors. The significant level indicates significant at P< .000 was revealed.

The Kaiser-Meyer-Olkin measure of sampling adequacy was computed to quantify the degree of inter-correlations among the variables. The high value for the Kaiser-Meyer-Olkin measure indicates that a factor analysis of the variables is good. The result indicate .914 a very good sign of adequacy for factor analysis (Kaiser 1970).

7. Conclusion

Factor analysis was conducted directly on the correlation among the variables. The emphasis of factor analysis is on the identification of underlying factors that might explain the mutual correlative relationship. Factor analysis was used to assess the dimensionality of ICTs in youth's empowerment and factor analysis is useful as a preliminary technique for scale constructions. The appropriateness of factor analysis is to ensure that data matrix has sufficient correlation to justify its application. The first step is visual examination of the correlation to identify statistical significant. The correlations are above 0.50 which is considered adequate for factor analysis (Hair *et al.,* 1998). The next step is assessing the overall significance of the correlation matrix with Barlett test of Sphericity, which provides the statistical probability that the correlation matrix has significant correlation among the variables. Finally, the Kaiser-Meyer-Olkin measures of sampling adequacy and the degree of inter-correlation amongst the variables. Larger values for the Kaiser-Meyer-Olkin measure indicate that a factor analysis of the variable is good (Kaiser, 1970). Based on the above EFA analysis result test, all 63 items in the 9 factors were then subjected to further to Confirmatory Factor Analysis (CFA) statistical test.

The research therefore, provides a presence for youths ICT empowerment. Findings of the research have important practical implication to troubling social and economic phenomenon in Nigeria and Bauchi State in particular. The use of ICTs has offer unprecedented opportunities for decentralizing information access, development and distribution through functional infrastructure facilities.

This research has a no of limitations that future research should redress; the sample is biased towards youths within the ages of 18-35 years at three geo-political zones in Bauchi state, Nigeria. The sample size ought to have been larger and the criteria used in selecting study location area. Finally, scales were largely only subjected to EFA.

Reference

Akunyili, D. (2010) ICT and e-Government in Nigeria: Opportunities and Challenges. An address delivered at World Congress on Information and Technology, Amsterdem, Netherlands.

Cattel, R. (1952) Factor Analysis; An introduction and manual for psychologist and social science. New York: Harper. BF 39. Wiley

Collins, et al. (2002) "Educating Citizen of the Global Learning Society". Cooperation South.

CBN (2011), Central Bank of Nigeria General Household Survey.

Chen, D.H. & Kee, H.L. (2005) A model on Knowledge and Endogenous Growth World Bank Policy Research.

Choike Organisation (2004). A rural access to ICT model that combines community-owned ICT enterprises.

Dada, G. & Sesan, H. (2003), ICTs in Nigeria: A status Report. www.gbengasesan.com

Ebebe A. Ukpong (2002). Opportunities, Challengies and Strategies Set by Information Technology: An Introductory Overview 2002 published by Sibon Books Limited Dugbe, Ibadan Nigeria.

Grunfeld, H. (2007) Framework for Evaluating Contributions of ICT to Capabilities, Empowerment and Sustainability in Disadvantaged Communities. Paper Presented at the CPR south 2 Conference, Chennai, India. www.ccsnet.org/cis Computer and Information Science Vol.3, No. 3; August, 2010 Published by Canadian Centre of Science and Education.

Holter, C. Mc Kenzie D. & Forde, B (2006) Information Technologies and Economic Development in Third World, 3rd edition, Longman New York.

Hair, J. F., Anderson, R. E., Tatham, R. L., & Black, W. C. (1995). Multivariate Data Analysis with Readings (4th ed.). Englewood Cliffs, NJ: Prentice Hall.

Hair, J. F. (1998) Multivariate Data Analysis. New York, NY: McGraw-Hill ISBN-10:0138948585

Internet World Statistics (2005), Internet Usage Statistics for Africa, Retrieve October 12, 2005, from the World Wide Web: http://www.internetworldstats.com/stats1.htm.

Judith, M. Antorio, J & Lius, H (2008) Information and Communication Technologies (ICTs) Training, Employment and Youth. The case of Brazil, Columbia, and Mexico, Center for Information and Society University of Washington.

Kline, R. B. (2005). Principles and Practice of Structural Equation Modelling (2nded.). New York: The Guilford Press.

Koffi, A. (1997) Information and Communication Technology Regional Human Development Report (RHDR), Asia-pacific Development Program, UNDP Regional Centre, Bangkok.

Krammer, W. J., Jenkins and Katz, R.S (2007) The Role of ICT Sector in Expanding Economic Opportunity. Corporate Social Responsibility Initiative Report No.22 Cambridge MA: Kennedy School of Government, Harvard University.

Kwapong, O. A. T. F. (2007). Problems of Policy Formulation and Implementation: The Case of ICT use in Rural Women's Empowerment in Ghana. International Journal of Education and Development using ICT, 3(2).

Manjulika, S. & Reddy, V.V. (2002) The changing Context of Higher Education in the 21st Century, in V.V. Reddy & S. Manjulika (eds) Towards Virtualization Open and Distance Learning New Delhi.

NBS (2011), National Bureau of Statistics General Household Survey Nigeria.

NCC (2011), Nigerian Communication Commission General Household Survey Nigeria.

NBS (2011), National Bureau of Statistics General Household Survey Nigeria.

NCC (2011), Nigerian Communication Commission General Household Survey Nigeria.

Ndukwe, E. (2005), "ICT Infrastructure: An Essential Foundation for Implementing the WSIS Process in Nigeria", eNigeria Annual National Conference, 28th-30th June, Abuja Nigeria.

NPC, (2005). National Population Commission, Nigeria at a Glance, Abuja, Nigeria.

Olatokun, W.M. (2009), Analyzing Socio-demographic Differences in Access and Uses of ICTs in Nigeria Using Capability Approach.

Olaoye I. K. (2010) Globalization, ICT and the Economic Empowerment of Women in Nigeria

Rayport, L & Joworski, R (2002). "Information Technologies to serve the poor" Development and Cooperation 1:4-5.

Robeyns, I. (2005) The capability Approach: a theoretical survey. Journal of Human Development vol.6, No.1 March, 2005.

Sekaran, U. (2000). Research Methods for Business: A Skill -Building Approach (3ed). New York: John Wiley & Sons, Inc.

Slater, D., & Tacchi, J. (2004). Research: ICT Innovation for Poverty Reduction. New Delhi: United Nations Educational, Scientific and Cultural Organization, Asia Pacific Regional Bureau for Communication and Information, UNESCO.

Tabatchnick, B.G. & Fidell, L.S. (2001) Using Multivariate Statistics 4th Edition. Boston: Allyn & Bacon.

UNECO, 2002. Changing the outlook Eradication of Poverty in Urban Areas Report of UNESCO-NGO joint Programme Commission on Poverty. Unesdoc.uneso.org/idc/newa.htm

UNDP (2004). Human Development Report. New York: UNDP

Warschauer, M. (2004). Of digital divides and social multipliers: Combining language and technology for human development. Information and communication technologies in the teaching and learning of foreign languages: State of the art, needs and perspectives (pp. 46-52). Moscow: UNESCO Institute for Information Technologies in Education

World Bank Development Report, (2005), Attacking Poverty, New York: Oxford University Press Inc.

World Bank Development Report, (2001). World Development Report 2000/2001: Attacking poverty. New York: Oxford University Press.
Zikmud, W. G. (2003) Business Research Methods 3rd Edition, Newdelhi, South Western Publications.

Figure 1.1 Bauchi State map indicating three zones study areas i.e. North (Katagum) Central (Ningi) and South (Bauchi).

Source: http//www.speakersoffice.gov.ng/constituencies_bauchi.htm 2013

Table 1.1 Shows factors and number of indicators, eigenvalue, % of variance, cumulative % of variance and after EFA.

No	Factors / Components		Number of indicators
1.	ICTs		9
	Eigen value	5.162	
	% of variance	57.360	
	Cumulative % of variance	57.360	
	Reliability	0.895	
2.	ICTTR		6
	Eigen value	4.693	
	% of variance	78.218	
	Cumulative % of variance	78.218	
	Reliability	0.944	
3.	GSK		6
	Eigen value	5.359	
	% of variance	77.977	
	Cumulative % of variance	77.977	
	Reliability	0.976	
4.	MTC		7
	Eigen value	5.208	
	% of variance	74.402	
	Cumulative % of variance	74.402	
	Reliability	0.941	
5.	CGC		7
	Eigen value	3.568	
	% of variance	50.973	
	Cumulative % of variance	50.973	
	Reliability	0.839	
6.	PPC		7
	Eigen value	5.029	
	% of variance	71.836	
	Cumulative % of variance	71.836	
	Reliability	0.931	
7.	RLC		7
	Eigen value	3.782	
	% of variance	54.034	
	Cumulative % of variance	54.034	
	Reliability	0.854	
8.	STC		7

	Eigen value	3.600	
	% of variance	51.422	
	Cumulative % of variance	51.422	
	Reliability	0.840	
9	TCC		7
	Eigen value	4.452	
	% of variance	63.599	
	Cumulative % of variance	63.599	
	Reliability	0.900	

Source: Developed from quantitative field study, 2013.

*Baba, HAFIZ is currently a PhD research student at Faculty of Economics and Business (FEB), Universiti of Malaysia Sarawak (UNIMAS) interesting in Management Technology, Technology Transfer and Entrepreneurship Development. From Bauchi State, Federal Republic of Nigeria. Email: babahafiz@yahoo.com Mobile: +601114004063, +2347034876640.

This academic article was published by The International Institute for Science, Technology and Education (IISTE). The IISTE is a pioneer in the Open Access Publishing service based in the U.S. and Europe. The aim of the institute is Accelerating Global Knowledge Sharing.

More information about the publisher can be found in the IISTE's homepage: http://www.iiste.org

CALL FOR PAPERS

The IISTE is currently hosting more than 30 peer-reviewed academic journals and collaborating with academic institutions around the world. There's no deadline for submission. **Prospective authors of IISTE journals can find the submission instruction on the following page:** http://www.iiste.org/Journals/

The IISTE editorial team promises to the review and publish all the qualified submissions in a **fast** manner. All the journals articles are available online to the readers all over the world without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself. Printed version of the journals is also available upon request of readers and authors.

IISTE Knowledge Sharing Partners

EBSCO, Index Copernicus, Ulrich's Periodicals Directory, JournalTOCS, PKP Open Archives Harvester, Bielefeld Academic Search Engine, Elektronische Zeitschriftenbibliothek EZB, Open J-Gate, OCLC WorldCat, Universe Digtial Library , NewJour, Google Scholar