ISSN : 2320-3684

EDUCATION AND DEVELOPMENT

A Peer Reviewed/Refereed Journal

AN INTERNATIONAL JOURNAL OF EDUCATION & HUMANITIES

Vol. VII, Number - 1 January-December, 2018

Chief Editor

Dr. S. Sabu

Principal, St. Gregorios Teachers' Training College, Meenangadi P.O.,
Wayanad District, Kerala-673591. E-mail: drssbkm@gmail.com

Co-Editor

S. B. Nangia

A.P.H. Publishing Corporation
4435–36/7, Ansari Road, Darya Ganj,
New Delhi-110002

Impact of Socio-Economic Conditions of Khasi Tribals on Information & Communication Technology (ICT) Usage in Changing Lives in Meghalaya

Shri Richards Lyngkhoi*

Abstract

Technology and skills play critical and complementary roles in increasing economic growth and productivity. Since the last decades of the 21st Century, technological change has increased both in pace and skill. From the dawn of Globalization, the ICT revolution are rapidly raising the demand for, and changing the lives of the people by its usage. The integration of ICT in everyday life has been fuelled by technological advances, economic investment, social and cultural changes. The study is of significance as it is first of its kind in Meghalaya. The usage of ICT by tribal women groups need to be studied as it is an indicator of empowerment of women in Meghalaya context. The present Indian government is presently taking policy measures for digital India. The findings of the study will enable the policy makers to see how digital communication can penetrate in the rural masses residing in hilly areas and to enhance their quality of life. The main objective of the study is to understand the socio-economic background of Tribal Women living in West Khasi Hills and South West Khasi Hills Districts of Meghalaya. The present study is based on a total of 760 respondents (workers and non-workers tribal women) distributed equally among the three tribal sub-groups i.e Maram, Lyngam and Garo living in West Khasi and South West Khasi Hills District of Meghalaya on the basis of multi stage sampling.

Keywords: Information and Communication Technology, Non-workers, Cultivator, Agricultural Labourer, Household Industry Worker, Marginal Workers:

INTRODUCTION

Technology and skills play critical and complementary roles in increasing economic growth and productivity. Since the last decades of the 21st Century, technological change has increased both in pace and skill. From the dawn of Globalization, the ICT revolution are rapidly raising the demand for, and changing the lives of the people by its usage. However new competencies are required for participating in the information society and knowledge economy includes e-literacy, technological literacy, communication skills, problem solving, critical thinking, self-learning, team work, creativity and initiative. With accelerated technological change, new channels for knowledge and learning has come into foreplay as a result of which learning has become a lifelong imperative. A culture of openness and continuous learning is necessary for an inclusive information society and a sustainable knowledge economy. A lifelong learning system covers learning from formal as well as informal sources. Much of the learning has to occur through networks that cut across academic, business, local and global communities. Digital communication and the recent tools of social networking and collaboration technologies further enable the creation and dynamism of these learning systems.

*Research Scholar, DACE, NEHU,Shillong

Researchers suggest that ICT has the potential to fundamentally transform how and what people learn throughout their lives. Learning is an active process in which people construct new understandings of the world around them through exploration, experimentation and discussion. ICT is more than a tool to access and transmit information but more broadly, a new medium through which people can simulate, create, express, and interact. In this case computers can be seen as a universal construction material, greatly expanding what people can create and what they can learn in the process (Shirali & Shahreza, 2007). In today's world, the most prevalent ICT device is the mobile phone, with almost 3.5 billion users around the world (Melhem and Tandon, 2009). Further it is estimated that there are 4.6 million Indian internet users are availing internet banking services as of 2007 (Kothari, 2007). In India, slowly but steadily, the Indian customer is moving towards Internet banking. But they are very concern about security and privacy of internet banking (Malhotra and Singh, 2009).

The diffusion of ICT (Information and Communication Technology) has seen a remarkable growth in the past decade across the globe. The integration of ICT in everyday life has been fuelled by technological advances, economic investment, social and cultural changes. Based on the most recent research and international observations, ICT can bring huge benefits to healthcare delivery by improving access, bringing efficiency, widening reach and reducing cost (Bhattacharyya, et al, 2010). In today's fast-paced high-tech age, the people are exposed to a variety of information and communication technology (ICT) based on various sources and networks for related information. Many studies found that despite the growth of internet usage among young consumers, still television is the advertising medium with most exposure compared to other traditional and non-conventional mediums (Soofi, 2012).

Studies show that the women's participation in economic development through microloans to build small and medium enterprises has been well documented and publicized. Women's business incubators are emerging through the developing world in recognition of the need to provide business opportunities for women as well as men to enhance, to grow and to quicken the pace of economic development. The full scale and power of many of these small and medium enterprises are yet to be fully realized, but there is a growing awareness of women's ability to use ICTs to expand their work across regions and around the world (Melhem and Tandon, 2009).

Traditional and modern ICTs can be used concurrently to speed up the circulation of information. It can be tools that assist them to optimize their production and marketing plans. Use of ICTs enables to promote the expansion of local markets, and provide direct access for women producers to international markets and productive resources. It provides access to a range of information on likely markets planning, management techniques. Thus, It is a powerful tool in production and marketing system. ICT affords inexpensive access to vast amount of information and networks, access to market information and the ability to directly access lucrative markets. Tele centres have been established in villages where appropriate rural female farmers can tap these resources and access information using new ICTs, such as e-mail, the World Wide Web, electronic networks, teleconferencing, and distance-learning tools. The internet, email and wireless mobile phone empower these women by offering access to services unavailable to them because of high cost in the rural areas (Agu, 2013).

The array of ICT-enabled options for poverty reduction is growing fast. As a communication and delivery infrastructure, ICT can assist the government to provide effective health and education services, facilitate citizen to government transactions, and promote participation and accountability. As a sector, ICT can create employment opportunities and improve incomes for the poor by targeted programs to support the activities of the poor and increase their productivity, improve their access to market and technical information, and lower the transaction costs of small farmers and traders. ICT can play a major role in helping to monitor food security related issues (weather, droughts, crop

failures, etc.) as well as alerting on natural disasters. As a tool for empowerment, ICT can support democracy, participation, mobilization, and civil values. Electronic interaction between government and citizens can provide citizens with access to the information and knowledge, consultancy, and online voting opportunities, among others.

ICT may be also used to empower women, as both producers and consumers. For example, in the Philippines women account for about 65% of total workers in IT services. They account for 30% in India—a much higher rate of female participation in services than in the general economy. Given the higher wages in IT services, this participation may contribute to improving the status of women. The potential to access relevant public services, at less cost and time, at home or at a local center can be also a source of empowerment. Having access to relevant information such as rights, benefits, inheritance laws, health care, and education should enable women and marginalized groups to access services and make informed decisions to meet their basic needs.

Making ICT work for the poor will require new conceptions of development, a new view of the world's poor, and a new approach to innovation with ICT. Rural tele-centers and shared access have been the focus of much of ICT for development programs targeted to poor and rural communities. But these programs have raised issues of sustainability and scalability and the search is on to address these issues. We still confront the challenge of how to connect the remaining people who still lack access to the Internet. Low-cost terminals will remain central to ICT for poverty reduction. Wireless technologies such as Wi-Max offer also major promises to connect poor communities. Deploying ICT for poverty reduction will inevitably require engaging poor communities in grassroots innovation and in coproducing relevant content and applications. A major challenge for using ICT for poverty reduction will continue to be the development of relevant content, services, and applications on increasingly affordable platforms. Different countries are experimenting with new approaches and mechanisms for developing relevant content for poverty reduction and innovating applications for community empowerment.

NEED AND JUSTIFICATION OF THE STUDY

ICT can be leveraged as a networking infrastructure to connect government agencies, NGOs, and even the poor to participate in development. Many NGOs in Latin America, for example, are assisting micro enterprises such as artisans to integrate into the global economy by using web sites for retail and wholesale buyers in industrialized countries, providing timely information on markets and buyers, and delivering a variety of training and business support services. Access to information and communication is central to empowerment and to building human capabilities. Accordingly, this new infrastructure would enable local economic and social agents to network, mobilize, and share local information, access global knowledge and markets, coordinate local action, share local experiences and innovations, and accelerate social learning. It enables real-time information sharing among change agents, communities of practice, and otherwise isolated communities. No wonder that the Internet has powered global civil society movements for causes such as debt relief, banning land mines, and providing HIV drugs in poor countries. The Internet was just as powerful in mobilizing people locally in campaigns against corruption (Korea), for democracy (the Philippines), and to protect the environment (Brazil).

A number of factors point to the threat of exclusion of the poor in the current information revolution. With the exception of mobile phones, the gap in the provision of new ICTs is much larger within and among countries than income disparities. Benefiting from ICT requires complementary investments and skills, including literacy. Threshold effects are also at work: network externalities, scale economies, lack of local content in local languages, fragmented markets for software applications, and high cost of access for remote areas—factors that lead to or reinforce poverty traps and economic isolation

for poor communities and poor countries. Poor and disadvantaged groups, particularly women, often face special constraints in accessing ICT and using them for their specific needs. The risks of economic exclusion suggest that countries should be concerned with the level of connectivity and ICT provision—and with enabling access and deploying ICT and content in ways that expand relevant information for the poor, increase their voice in decision making, and address bottlenecks to their trade. Thus the researcher intends to study on the usage of ICT in changing lives of Tribal women living in hilly areas in Meghalaya.

There are gender issues as well in the applicability of ICT protocols in developing countries. Most women's use of ICT has been limited to radio programmes and phone-ins, private phone calls, emails and sometimes to list serves, and some networking activities. Relatively few women have used it for business, formal and non-formal education, or for purposes of livelihood and wellbeing for themselves and their families, such as accessing health and nutrition education. The availability of ICT enables women to acquire knowledge that can be used to increase their social and economic standing in society, as they are able to use the knowledge to tap various income-generating opportunities and to influence the services they require from government. There are growing numbers of cellular and mobile telephone networks, mobile radio communication, paging services, private radio and television stations, and multipurpose community tele-centres providing communication services of fax, telephone, email and Internet, media services, and computer services that are targeted at women (Kwapong et al. 2009).

STATEMENT OF THE PROBLEM

On the basis of the above justification, the study is entitled as **"Information & Communication Technology (ICT) Usage in Changing Lives of Tribal Women of Hilly Areas in Meghalaya"**.

DELIMITATION OF THE STUDY

1. The study will be delimited to the three major tribal communities (Maram, Lyngam and Garo women) in the age group of 18-45 years of age.
2. The study will be delimited to female workers and female non-workers residing in West Khasi Hills District and South West Khasi Hills District.

OBJECTIVES

1. To study the socio-economic background of Tribal Women living in West Khasi Hills and South West Khasi Hills Districts of Meghalaya.

RESEARCH QUESTIONS

1. What is the socio-economic status of Tribal women living in West Khasi Hills and South West Khasi Hills Districts of Meghalaya?

HYPOTHESIS

1. There exist no significant differences in the level of access, availability and usage of ICT by different groups for agriculture.

SIGNIFICANCE OF THE STUDY

According to the Indian Census of 2011, 69 percent of the total Indian population lives in rural areas. People in these areas face several developmental challenges, such as low literacy, poor

healthcare facilities, low per capita income, a high degree of poverty and poor infrastructure. In recent years, the mobile phone has emerged as an important development tool (Islam 2011). It is seen as a device that has the potential to break the rural–urban developmental gap by delivering information on a variety of economic and social issues (Aker and Mbiti 2010). Mobile phones can facilitate need-based and user-centric information and services at an affordable cost to India's rural population, which was hitherto unreachable (Balwant Singh Mehta, 2013).

In rural areas, usage of mobile phones can be divided broadly into two categories: social and economic purposes. Mobile phone usage can help improve the economic status of the rural populace by providing timely information on farming, jobs or the labour market, trading and credit. In addition, usage of mobile phones can help improve life skills and social capital by providing timely information on healthcare, education, government schemes, family and friends.

The study is of significance as it is first of its kind in Meghalaya. The usage of ICT by tribal women groups need to be studied as it is an indicator of empowerment of women in Meghalaya context. The present Indian government is presently taking policy measures for digital India. The findings of the study will enable the policy makers to see how digital communication can penetrate in the rural masses residing in hilly areas and to enhance their quality of life.

RESEARCH DESIGN

The present study based on a total of 760 respondents (workers and non-workers tribal women) distributed equally among the three tribal sub-groups i.e Maram, Lyngam and Garo living in West Khasi and South West Khasi Hills District of Meghalaya. The total number of female workers and female non-workers in the Districts as per Census Report 2011 were 1, 67,976. The total female workers were 67,439 and the total female non-workers were 100537. The total numbers of female cultivators were 39,669, female agricultural labourers were 16,503, Household Industry workers were 1,353 and other workers were 9,914. For the purpose of the study, all the female workers were categorized as cultivators, agricultural labourers, household Industry workers, other workers and non-workers comprise the universe of the study.

Multistage random sampling method was adopted by the investigator for drawing sample from the universe. In the first stage, out of four blocks of West Khasi Hills District, two block at random and out of two blocks of South West Khasi Hills District, one block at random was drawn by the investigator. In the second stage, approximately 10% of the villages would be drawn from the selected blocks using proportionate sampling method. In the third stage from each village, 10 respondents shall be drawn at random having equal representation from female workers and female non workers. Thus the total number of female workers and female non workers would be 760. The female workers include the cultivators, agricultural labourers, household industry workers and other workers.

MAIN FINDINGS

The socio-economic condition is one of the major determinants of assessing the tribal women's conditions living in West and South West Khasi Hills District. It includes age, educational status, income, occupation gender, marital status, size of family, place of living, computer literacy, availability bank system etc. (Hasan et al, 2008; Wims, Pádraig, 2011, Priya, 2013; Singh, 2013; Bohara, 2014; Kaur, et al. 2015; Syiem & Raj, 2015). Age is one of the important criteria for socio-economic study of the respondents. It was found from the data that 40.66 percent of the respondents are in the age group of 18 to 25. With regard to place of living, most of the people are living in rural areas. It was found also that 55.92 percent of the respondents are joint family

whereas 44.08 percent are nuclear family. Similarly, it was found that 15 percent are of family size of 2 members and 29.74 percent are of family size of 2 to 4 members. Further it was found that around 41 percent having an average income of 3000 to 8000 and 6.58 percent have income of more than 8000. With regard to occupational status of the respondents, 28.16 percent are engaged in agriculture sectors, 33.95 percent are domestic workers, 30.53 are household workers, 3.16 percent are government servants, and 4.21 percent are engaged in private organization. It was found from the data that 73 percent have qualifications of Class I to Class X and 20 percent are having qualifications of above Class XII.

Again it was found that 21.44 percent of the respondents delivered their first child in Civil Hospital, 29.50 percent delivered in Primary Health Centre, 20.07 delivered in Community Health Centre, and 28.99 percent delivered at their home. With regard to assistance during delivery, 7.55 percent assist by Doctors, 65.01 percent assist by Nurses and 27.44 percent assist by Dai. It was found that 27.62 percent of the respondents use contraceptive for family planning whereas 72.38 percent did not used contraceptive for family planning. It was also found that distance to the nearest health facility centre 5 percent were within 3KM, 10.00 percent were between 3 KM to 5 KM, 49.74 percent were between 5KM to 9KM, and 17.37 percent were more than 10KM. It was found from the data that 18.16 percent of the respondents consume food twice daily, 36.71 percent consumed food thrice daily, and 45.13 percent consumed food more than three times daily. With regard to calories (2400 calories) intake, 22.5 percent are in normal level, 40.00% are in below normal level and 37.5 percent are above normal level.

It was found from the data that 56.45 percent live in Tina house and 20.92 percent live in RCC House. With regard to source of drinking water, 12.24 percent of the respondents have tap inside the house, 45.39 percent have tap shared by public, 10.00 percent have hand pump, 10.92 percent have covered well and 21.45 percent have uncovered well. Similarly, sanitation facilities of the respondents, 10.00 percent have own flush toilet, 60.53 percent have own pit toilet, 21.97 percent have latrine septic tank, whereas 7.50 percent have no toilet facilities. With regard to electric connection 85.26 percent have electricity connection at home whereas 14.74 percent have no electric connection at their home. With regard to main type of fuel used for cooking, 6.05 percent used liquid petroleum gas, 77.24 percent used wood and 12.11 percent used charcoal for cooking. It was found from the data that 13.16 percent of the respondents were living in wetland area, 18.68 percent in dry land and 68.16 percent in hilly slope. It was found also that 98.68 percent of the respondents grown rice, 9.47 percent grown wheat, 51.45 percent grown maize, and 84.47 percent grown other types such as ginger etc. Again it was found from the data that 91.18 percent of the respondents grown potatoes, 88.42 percent grown sweet potatoes, 90.66 percent grown bean, 83.55 percent grown cabbage, 63.82 percent grown pumpkin and 75.13 percent grown other types of vegetables such as cucumber, salad etc. It was found from the data that 46.05 percent of the respondents have radio, 65.26 percent have Television set, 0.26 percent has Personal Computer, 0.39 percent has Laptop, 20.53 percent have Bicycle, 15.66 percent have Motor cycle and 0.39 percent have car at their home.

CONCLUSION

Thus ICT is an umbrella term that generally covers the harnessing of electronic technology for the information needs of the people to secure productive gains for the country. It can be deployed across the board in all sectors of the economy, and the gains are enormous in terms of economic growth. Today India has the comparative advantage of having the largest youth power in the world. They can be involved in the growing share of knowledge based production

by development of appropriate skills and there by generating positive linkages in the larger macro economy. The use of ICTs in the larger socio-economic dynamic is therefore critical from India point of view in order to induce rapid social transformation and change. What is needed is to bring ICT that can have substantial effect upon work employment. China has demonstrated how ICT learning acquired through production for the domestic market can be leveraged to compete globally. ICTs are fast flowing phenomenon, with rapid and successively waves of technical advancements of market information. However dilemmas are associated with increasing diffusion of ICTs in India, namely, the growing inequities in access to the enabling benefits of ICTs. The gender-based disparities, huge gap between different regions (particularly between rural and urban areas), difference due to educational attainment and income levels of the people are hindrances in the usage of ICTs. This digital divide characterizes the patterns of diffusion of ICTs between the rich and the poor. The issues pertaining to the downstream use of ICTs in government and provision of social services or in enabling knowledge dissemination and related empowerment are the discourses in social science research today. Information and Communication Technologies, a development in technological advancements, have accelerated the socio-economic and cultural revolution throughout the world. They have become significant building blocks of the post-modern society and are applied in diverse fields such as agriculture, banking, business, health, leisure and the like.

REFERENCES

- Adeleke, I. T. et al. (2014). ICT knowledge, utilization and perception among healthcare providers at National Hospital Abuja, Nigeria". *American Journal of Health Research, 2015; 3(1-1).* 47-53. Retrieved from http: //www. sciencepublishinggroup.com/j/ajhr.
- Anwar, S. (2012). Young Consumers' Attitude towards Television Advertisements in the Internet Age. *International Journal of Multidisciplinary Research, (2)* 4, 200 –208.
- Bhattacharyya et al., (2009). Biometric Authentication - A Review. *International Journal of u- and e- Service, Science and Technology*, (2) 3.
- Bhavna, S. (2016). Popular FM Radio station and listening habits in Greater Noida. *Imperial Journal of Interdisciplinary Research (IJIR), (2)*1, 45–52.
- Bohara, A. (2014). Strategic implementation of ICT in Agriculture information dissemination. A case of Gulmi District. *Institute of Engineering, Tribhuvan University*, 61 – 75.
- Churi, A. J. et al. (2012). Understanding Farmers Information Communication Strategies for Managing Climate Risks in Rural Semi-Arid Areas, Tanzania. *International Journal of Information and Communication Technology Research, (2)*11, 838 - 845.
- Datt, G and Ravallion, M. (1996). How important to India's Poor is the sectoral composition of growth? *World Bank Economic Review, (10)*1, 1–26.
- Edegoh, L. et al. (2013). Radio Listening Habit of Rural Women in Idemili South Local Government Area of Anambra State, Nigeria. *IOSR Journal Of Humanities And Social Science, (15)* 5 21-26, Retrieved from www.Iosrjournals.Org.
- Elavarasi, R. et al. (2014). Customer Awareness and Preference towards E-Banking Services of Banks (A Study of SBI). *International Research Journal of Business and Management – IRJBM*, (4), 59 – 67.
- Fuller, B.R. (1981). Critical Path. *St. Martin's Press, New York*, 139.
- Gapsiso, N. D. et al. (2014). Study of the Effects of ICT on News Processing in Borno Radio Television (BRTV) Maiduguri-Nigeria. *New Media and Mass Communication*. (27), 31 – 40.
- Gendron, Robert P. (1977). Habitat Selection and Migratory Behaviour of the Intertidal Gastropod Littorina littorea. *Journal of Animal Ecology* (46), 79-92.
- Government of India (2011). Faster, Sustainable and More Inclusive Growth: An Approach to the 12th Five Year Plan (Draft*). Planning Commission, Government of India, New Delhi.*

- Greenridge, C. (2003). Welcome Address: ICTs Transforming Agricultural Extension? Presentation to CTA's Sixth Consultative Expert Meeting of its Observatory on ICTs. *Wageningen, the Netherlands*. Retrived from www.cta.int/observatory2003/ keynote_papers/Welcome.pdf.
- Gupta, K. K. et al. (2012). Development of an instrument to measure Internet banking service quality in India. *Journal of Arts, Science & Commerce, (3)*2, 11 – 25.
- Hameed, A. et al. (2014). Impact of TV Advertisement on Children Buying Behavior. *International Journal of Humanities and Social Science. (4)* 2, 246 – 261.
- Hamelink, C. (1998). Cyberspace as the Public Domain: the Role of Civil Society. *In Infoethics.*
- Hasan, I. (2002). Do Internet Activities Add Value? The Italian Bank Experience. *Working Paper, Federal Reserve Bank of Atlanta, New York University*.
- Hasan, R. et al. (2009). Farmers access to information for Agricultural Development in Bangladesh. *Bangladesh Research Publications Journal, (2)* 1, 319-331.
- Hassan, Md. S. et al. (2012). Use of Information and Communication Technology (ICT) among Agriculture based Entrepreneurs in Malaysia. *World Conference on Agricultural Information*, 753 – 762.
- Irabatti, P. A. (2013). Customer Satisfaction of Online Banking in SBI and ICICI-A Comparative Study in Pune City. *International Journal of Techno-Management Research, (01)* 01, 1–13.
- Jahangir, S. F. et al. (2014). Effects of Media (Television) on Mental Health. *FWU Journal of Social Sciences, (8)* 1, 97-107.
- Joseph et al. (1999). Service quality in the banking sector: The impact of technology on service delivery. *International Journal of Bank Marketing, (17)* 4, 182-191.
- Jun, M. and Cai, S. (2001). The key determinants of Internet banking service quality: A content analysis. International Journal of bank Marketing, *(19)* 7, 276-291.
- Juni, M. S. et al. (2014). Impact of TV Advertisement on Children Buying Behavior. *International Journal of Multidisciplinary Academic Research, (2)* 4, 13.
- Kaur, N. et al. (2015). Online Banking on E-Commerce in India. *International Journal of Engineering Research and Applications, (5)* 4, 39-49.
- Khatun, F. et al. (2015). Impact of ICT on Health Services in Bangladesh: A study on Hobiganj Adhunik Zila Sadar Hospital. *Bangladesh Development Research Center*, 1–14.
- Kumar et al. (2017). Availability of Information and Communication Technologies (ICTs) tools usages by Farmers in Haryana. *Int. J. Pure App. Biosci. 5(3):* 648-653. Retrieved online from http://dx.doi.org/10.18782/2320-7051.2946.
- Luo, N. et al. (2009). Acceptance of Information and Communication Technologies for Healthcare Delivery: A Singh Health Polyclinics Study. *Annals of Academy in Medicine, (38)* 6, 529 – 536.
- Mabe L.K and Oladele O. I, (2012). Use of Information Communication Technologies tools
- MacKenzie and Wajcman D. (1985). Social Shaping of Technology. *Open University Press, Milton Keynes and Philadelphia.*
- Maroor, J. P. (2015). Awareness and Perception of Rural Women towards Advertisement. *Pacific Business Review International, (8)* 5, 78 – 90.
- McDermott, J. J. (1981). The philosophy of John Dewey. *Chicago. University of Chicago Press.*
- Mesthene, E.G (1981). The role of Technology in Society. *Technology and man future*, New York St. Martin Press, 99 – 130.
- Mookerji, N. (1998). Internet Banking Still in Evolutionary Stage. Retrieved from www.financialexpress.com/fe /daily/19980714/19555264.html.
- Narasimhamurthy, N. (2014). Television as a Dominant Source of Infotainment among Youths in Bangalore City. *IOSR Journal of Research & Method in Education, (4)* 5, 21-28.
- Narayana et al. (2012). "*A Critical Analysis of Socio-Cultural Impact of New Media on Users in India*".1 – 18.
- Njoroge, T. et al. (2014). Using ICT to attract Kenyan youth into Agriculture: E-gardens. *International Journal of Computer Science and Information Technology & Security (IJCSITS), (4)* 4, 96 – 102.
- Ojuondo, G. et al. (2014). The Role of ICTs in Health Communication in Slums in Kenya. *International Research Journal of Social Sciences, (3)*10, 28 – 34.