

Evaluation of ICT indices impacts on rural life based on AHP Method

Nemati.Morteza¹

Assistant Prof, Geography and rural planning, Shahid Chamran University of Ahvaz, Ahvaz, Iran
Alizadeh.Hadi

MSc Student of Geography, Shahid Chamran University of Ahvaz, Ahvaz, Iran

Received 12 September 2012

Accepted 31 October 2012

1. INTRODUCTION

Despite the traditional views that believed "information society" requires to pass through the various stages, especially transition from the industrial society, new perspectives argue that the emergence of new opportunities in the field of Information and Communication Technology has offered good options for all countries, especially for the less developed ones, and therefore the twentieth century industrial society quickly has been replaced with the information society of the twenty-first century. However, earlier authors like Toffler, had predicted "The Third Wave" of Technologies and advancing to new civilizations. In this regard, the effects of globalization can be studied in relation to new technologies of information and communication focusing on political, technological and cultural aspects. Today, the impact of ICT in all aspects of life, especially in rural communities at various levels has been fully recognized. This study seeks to investigate the factors affecting this process in rural areas and determine the importance of each of these factors.

2. TEORETICAL FRAMEWORK

Currently, ICT has gained an outstanding importance in our life. Various studies have demonstrated the critical role of ICT in development of politics, economics and social culture. Information and communication technology has become a powerful tool for crossing the barriers of rural life. Castells is one of the researchers who explain information technology through the concepts of the information economy where the primary source of wealth creation lies in the power of creating new knowledge and its application in all areas of human activity through organizational and technical procedures of information processing. However, facilities that ICT provided for people to overcome the gap created by remoteness, show that there is a direct relationship between this technology and rural development. Generally speaking, ICT impacts on rural and remote areas are considered to be of two kinds: 1.the concept of how ICT has an impact on reducing the gaps; 2.by promoting the public knowledge of rural people to change them to trained ones. Evidence shows that the Internet fosters the social interactions and consequently increases the cohesion of the rural population and reduces out-migration.

* Email: nematigeo@gmail.com

Corresponding Author: 00989149635960

3. DISCUSSION

In this descriptive-analytic study, we tried to examine the areas that are affected by the ICT in rural areas, and then we tried to identify the weight and importance of each of them by selected experts of the research. For this purpose, the main indices of public knowledge, attitude, skill and activity were presented to experts in 12 sub-indices. To analyze the data and determine the weight of indices, AHP group model was used. Data analysis by AHP model showed that the index of consciousness with 0.571 gained the highest weight. This also happened for the sub-indices of consciousness. Among the selected indices, the index of attitude gained the least weights by the experts.

4. CONCLUSION

The results of this study show that today's information and communication technologies are so extensive that will affect all places. Rural areas are no exemption. This study using three indices of public knowledge, attitude, skill and activity as the indices affected by ICT, tried to examine this effect in rural areas and prioritize them by the help of some experts. The results revealed that the index of public knowledge had the first priority.

5. SUGGESTIONS

There commendations made as the result of this study are summarized in giving more attention to public knowledge in economic, socio-political issues and public awareness in rural areas in order to properly deal with the effects of ITC.

Key words: Rural ICTs • Group AHP • Rural Life Impacts Aspects • Evaluation.

References (In Persian)

1. Faraji, S.; Khaki, A. & Ne'mati, M. (2009). *"Evaluating the role of ICT in enabling the rural women"*. Journal of Geography. No. 22, pp. 159-175.
2. Jalali, A. (2006). *"Electronic villages"*. First edition. Tehran: University of science and technology.
3. Mo'meni, M. (2010). *"Novel topics in operation research"*. First edition. Tehran: University of Tehran.
4. Motiee langaroody, H.; Rezvani, M.; Faraji Sabokbar, H. & Ne'mati, M. (2009). *"Analysis of the patterns of relations between the social and economic areas affected by ICT in the sample villages, case study: Central district of Gorgan County"*. Journal of regional and urban researches and studies. No. 3, pp. 71-90
5. Motiee Langaroody, H.; Rezvani, M.; Faraji Sabokbar, H. & Ne'mati, M. (2009). *"Analysis of the socio-economic effects of information and rural communication technology"*. Journal of geography. No. 26, pp.33-60.

6. Ne'mati, M. (2011). *"Evolution of the concepts of time and space in information society, the necessity of revising the basic concepts of geography"*. Journal of Information Society. No.1, pp. 10-25.
7. Qodsi Pour, H. (2010). *"Process of hierarchal analysis"*. 4th edition. Tehran: Amir-Kabir Industrial University.
8. UNESCO National commission. (2005). *"Basic texts of the UNESCO about Information Society"*. Translated by Hamid Javadani. Tehran: UNESCO National Commission.

References (In English)

9. Abboot, P. A. (2002). *"Globalization and advances in information and communication technologies"*. Nursing Outlook. pp. 238-246.
10. Akca, H. & Sayili, K. (2007). *"Challenge of rural people to reduce digital divide in the globalized world: Theory and practice"*. Government Information Quarterly. No. 24, pp. 404-413.
11. Annam, S. (2002). *"ICT as tool for rural development available"*. Available at: http://thinkcycle.media.mit.edu/thinkcycle/main/development_by_design_2002/publication__ict_as_tool_for_rural_development/ICT_Shireesh_IITK_dyd02update.pdf
12. Gabrielsson, P. & Gabrielsson, M. (2004). *"Globalizing internationals: business portfolio and marketing strategies in the ICT field"*. International Business. Vol. 13. Issue 6. pp. 661-684.
13. Castells, E. (2001). *"The internet galaxy"*. New York: Oxford University Press.
14. Guangquan Zhang, J. L. & Da, R.. (2007). *"Multi-Objective Group Decision Making"*. Imperial College Press.
15. Gunasekaran, V. (2007). *"Emerging wireless technologies for developing countries"*. Technology in Society. No. 29, pp. 23-42.
16. Hudson, H. E. (2006). *"From the Rural Village to Global Village: Telecommunications for Development"*. Lawrence Erlbaum associates.
17. Hyun Moon, J. & Chang, S. K. (1999). *"Use of fuzzy set theory in the aggregation of expert judgments"*. Annals of Nuclear Energy. No. 26, pp. 461-469.
18. International ICT Literacy Panel. (2002). *"Digital transformation: A framework for ICT literacy. Princeton, NJ"*. Educational Testing Services. Available at: www.ets.org
19. ITU. (2003). *"Trends In reform Telecommunication, Promoting Universal Access to ICTs"*. Available at: www.itu.int
20. Jalali, A. A. (2006). *"The socio-economic Impacts of ICTs in Rural Iran"*. United nation educational, scientific & cultural organization. Available at: www.unesdoc.unesco.org
21. Jalali, A. A. (2006). *"Women's Economic Empowerment and the Role of ICT"*. World Bank. Washington DC. Available at: www.siteresources.worldbank.org/INTGENDER/Resources/AlkJalali.pdf
22. Kumar, K. (2004). *"From post-industrial to post-modern society"*. In F. Webster et al. (Eds). The Information Society Reader. London & New York: Rutledge.

23. LaRose, R. & Jenifer, L.G. (2004). *"Closing the rural broadband gap: Promoting adoption of Internet in rural America"*. Telecommunication Policy. No. 31, pp. 395-373.
24. Luhan, M. (1964). *"Understanding the Media: Extensions of Man"*. London: Routledge, Kegan Paul.
25. Partnership for 21st Century Skills. (2003). *"Learning for the 21st century. Washington, DC: Partnership for 21st Century Skills"*. Available at: www.21stcenturyskills.org/images/stories/otherdocs/p21up_Report.pdf Retrieved 2.02.08.
26. Rama Rao, T. P. (2004). *"ICT and e-Governance for Rural Development, Center for Electronic Governance"*. Indian Institute of Rural Management: Ahmedabad. Poetics. No. 34, pp. 21-235.
27. Ramrez, R. (2001). *"A model for rural and remote information and communication technologies: a Canadian exploration"*. Telecommunications Policy.
28. Roger, W. H. (2004). *"Information and communication technology for poverty alleviation, the United Nations Development Programmer's Asia-Pacific Development Information Programmed"*. UNDP-APDIP. Kuala Lumpur, Malaysia. Available at: www.apdip.net
29. Seames, G. (2000). *"Rural areas in the information society: diminishing distance or increasing learning capacity?"*. Journal of rural studies. No.14, pp. 13-21.
30. Valentinea, G. & Hollowayb, S. L. (2001). *"A window on the wider world? Rural children's use of information and communication technologies"*. Journal of Rural Studies. No.17, pp. 383-394.