A Model for Evaluation and Development of Citizens' Electronic Readiness for Deployment of an E-City Using Structural Equation Modeling

Vahid Baradaran, Islamic Azad University, Tehran North Branch, Tehran, Iran

Sorour Farokhi, Islamic Azad University, Tehran North Branch, Tehran, Iran

Zahra Ahamdi, Islamic Azad University, Zahedan Branch, Zahedan, Iran

ABSTRACT

This article describes how as the world moves faster and faster towards a digital society, moving toward electronic cities is inevitable due to population growth and transformation of human relationships. Such trend is almost impossible without having electronic cities and citizens. Today, governments seek to improve their services by relying on new ICT solutions so that citizens get the services they want with the best quality, least cost, and in the shortest time possible. Considering the importance of this issue, in this article a model for evaluation and development of citizens' electronic readiness for deployment of an electronic city has been proposed. The present article is descriptive in terms of methodology and a survey in terms of data collection using a questionnaire with a population of 384 citizens of The Citizens of a City in Iran. The aspects this article explores include technical and communication infrastructure, business environment, and culture and society. These factors were investigated considering 33 indices derived from SEM as well as using SPSS and AMOS and the hypotheses of the research were tested. The results show that the model has an overall fitting and that there is a positive, significant relation between the variables and the citizens' E-readiness and using these indices is a good basis for presenting a model for the evaluation of citizens' E-readiness. According to the results obtained from the analysis of the research model, it was found that compared with other factors the understudy city lacked a proper technical and communication infrastructure. Therefore, some solutions for increasing citizens' E-readiness have been offered.

KEYWORDS

E-citizen, E-city, E-readiness, Structural Equation Modeling

1. INTRODUCTION

Extensive progress in Information and Communications Technology (ICT) along with its essential need to maturity and development has encouraged many thinkers to uphold the optimistic theory which believes that new media can fill present communicative gaps and revive the urge for more participation in the civil society (Alexopoulos et al., 2010). Despite high investments in ICT development, ICT usage has been with delay in terms of expansion and diffusion of different applications in many countries (Medziausiene et al., 2015). One of the reasons is that people have low level of E-readiness for recognizing and using ICT within and among societies and organizations. (Hamner, Al-Qahtani,

2009; Horst et al., 2007;Centeno, 2004). Therefore, the right understanding of E-readiness and moving according to a proper model for directing and initiating attempts for establishing an E-city is vital (M.-L. Marsal-Llacuna et al., 2014). In an E-city all the services required by the citizens are delivered via communication networks and the city authorities are able to conduct their activities in a fast, available, and safe manner using ICT. The main goal of establishing an E-city is to provide the citizens with easy, round-the-clock services even on holidays. Hence, the citizens' electronic readiness in utilizing provided services has also become a key and important element in this respect. An E-city cannot be easily realized if a society does not have E-readiness for utilizing network-based services or if the elements of E-readiness have not been embedded in society. Evaluating E-readiness helps countries to set up related measures and set realistic targets to achieve an information-based society based on information and E-Government (Akmana et al., 2005; Hamner, Al-Qahtani, 2009). A proper evaluation of E-readiness is important because its results can be used in strengthening accelerating activities, in improving global competition, and in using the limited resources more wisely (Docktor, 2004). Furthermore, a correct evaluation can depict the regional and international status of a given country, enhance its power and competitive capabilities, and improve its core competencies in comparison to other countries (Docktor, 2002).

E-readiness assessments are also useful in understanding and identifying the most key and relevant ICT-based development opportunities. For example, to put ICT to effective use, a country must be E-ready in terms of infrastructure, the accessibility of ICT to the population at large and the effect of the legal and regulatory framework on ICT use, benchmarking progress, collaborations, determining vision, strategy, and priorities (Docktor, 2002). An e-readiness assessment should lead to the development of a strategy and the

preparation of an action plan that would address the opportunities and constraints identified in order to further the objectives of a country in the area of ICTs. Furthermore, E-readiness assessment enables governments to set, measure and achieve realistic goals for an information society, information-based economy, or e-government (Mutula & Brakel, 2006a).

In this regard the main questions of this research are as follows:

1. How to assess and evaluate the E-readiness of citizens to implement and stablish an electronic city?
2. Which dimensions of structural factors for E-readiness of citizens is greater than other?
3. Is there acceptable goodness of fit in exploratory and structural equation modeling in the present study?

Hence, the aim of the present study is to propose a proper model for measuring the E-readiness of citizens as well as presenting solutions to enhance it by Using analytical statistics to examine the relations between independent and dependent variables and their mutual influence. This study also seeks to prioritize and rank the crucial factors in the evaluation of citizens' readiness with the aim of establishing an E-city.

2. LITERATURE REVIEW

2.1. E-city and E-readiness

The limitations of ordinary cities are non-existent in E-cities and since most activities are done electronically and via World Wide Web, physical presence of individuals is not necessary. Therefore, the citizens are provided with electronic services via electronic media and the Internet in the form of an E-Government (Tohidi & Jabbari, 2011). The first electronic city was established in Amsterdam, Netherlands in 1994. In electronic cities, citizens have more time for leisure and rest. The reduction of working hours, economic growth, the enhancement of productivity, reduction in citizens' personal

21 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage: www.igi-global.com/article/a-model-for-evaluation-and-development-of-citizens-electronic-readiness-for-deployment-of-an-e-city-using-structural-equation-modeling/210199

Related Content

Exclusiveness vs. Inclusiveness in Software Development: The Triple-Loop-Learning Approach
Edeltraud Hanappi-Egger (2012). *Globalization, Technology Diffusion and Gender Disparity: Social Impacts of ICTs (pp. 96-109).*
www.irma-international.org/chapter/exclusiveness-inclusiveness-software-development/62878

Enabling Technologies for Enterprise Globalizations
Yi-Chen Lanand B. Unhelkar (2008). *Global Information Technologies: Concepts, Methodologies, Tools, and Applications (pp. 189-218).*
www.irma-international.org/chapter/enabling-technologies-enterprise-globalizations/18963

Features and Comparative Research on Ecological Civilization Vocabularies in the Five-Year Plan of China: An Analysis Based on Semantic Phrases
Shaoli He, Xianhua Wuand Ji Guo (2023). *Journal of Global Information Management (pp. 1-26).*
www.irma-international.org/article/features-and-comparative-research-on-ecological-civilization-vocabularies-in-the-five-year-plan-of-china/330149

Digital Divide: Introduction to the Problem
Liudmila Burtseva, Svetlana Cojocaru, Constantin Gaindric, Galina Magariuand Tatiana Verlan (2009). *Selected Readings on Global Information Technology: Contemporary Applications (pp. 21-36).*
www.irma-international.org/chapter/digital-divide-introduction-problem/28603

Accessing Administration's Information via Internet in Spain
Agustí Cerrill i Martinez (2008). *Global Information Technologies: Concepts, Methodologies, Tools, and Applications (pp. 2558-2573).*
www.irma-international.org/chapter/accessing-administration-information-via-internet/19131