## Acceptance of E-Government Services and Public Participation in Developing Countries

Volume: 1

Gajendra Sharma

Kathmandu University, School of Engineering, Department of Computer Science and Engineering, Dhulikhel, Kavre, Nepal

Corresponding Email\*: gajendra.sharma@ku.edu.np

#### Abstract

E-government is a means for governments to use the most innovative information communication technologies (ICTs) through electronic network with more convenient access to government information and services. ICTs develop public participation by facilitating citizens to interact better with each other. The government services are made available to the citizens in a convenient, efficient and transparent manner through e-governance. The objective of this study is to present how public participation is significant to enhance quality government services in developing countries such as Nepal. A conceptual framework was developed based on extensive literature review. The theoretical foundations proposed in this study are policy network theory and theory of intrinsic motivation. The key benefits of e-governance include efficiency, improved services, better accessibility of public services, and transparency. The result of ethical implementation of e-governance is creation of good governance. The e-governance requires a considerable increase in regulation and policy making abilities, with all the expertise and opinion-shaping processes.

#### Keywords

E-governance; e-government; public participation; challenging issues; ethics

### 1. INTRODUCTION

E-Government is defined as digital interactions between a government and citizens(G2C), government and businesses (G2B), government and employees (G2E), and between government and governments or agencies (G2G). The e-Government delivery models can be shortly summarized up as government to citizens (G2C), government to businesses (G2B), government to employees(G2E), government to governments (G2G) and citizens to governments (C2G) (Gartner, 2002). The digital interaction consists of governance, information and communication technology (ICT), business process re-

engineering, and e-citizen at all levels of government organizations.

The emergence ICT directly affects the functions and roles of government. E-governance has been one of the main impacts of ICT. Many nations have realized the benefits of e-governance and have started offering their services through the online services [13]. Through the e-governance, the government services will be made available to the public in a convenient, efficient and apparent manner. The three prominent target groups that can be distinguished in governance concepts include government, citizens or public and

businesses organization. In this connection, egovernance has no distinct boundaries [8].

Implementing internet contents and public assessments, the e-government revolution has fallen short of its capacity to transform service delivery and public trust in government. It has the possibility of enhancing democratic responsiveness and increasing beliefs that government is efficient [7]. The impact of new technology on public-sector service delivery and public attitudes about government has long been controversial among political observers. The study investigates the content of e-government to locate whether it is taking advantage of the interactive features of the internet to enhance service delivery, democratic responsiveness and public outreach. Besides this, a national public opinion survey observes the capability of egovernment to influence public views about government and their self-belief in the efficiency of service delivery [17].

E-government initiatives face serious challenges which are described in a number of studies [9,11]. These challenges seem to fall into three categories: management, infrastructure, and human factors. While the first category is solely linked to the supply side, the infrastructure and human factors belong to both the supply and demand side, i.e., public issues. In most cases, the greatest limitations toe-government are non-technical, in the management category, such as political opposition, deeply ingrained policies and practices, and internal employee resistance [14].

The objective of this study is to present how public participation is significant to enhance quality government services in developing countries such as Nepal. A conceptual framework was developed based on extensive literature review. The result of ethical implementation of egovernance is creation of good governance. Good governance is one of the most important public concerns that the government can offer to its people. It is one of the fundamental reasons why we have governments and we agree to abide by roles and responsibilities which fall under different forms of governance. Good governance facilitates that we can enjoy our fundamental rights to live with dignity, freedom and security, and can take advantage of various opportunities and services available to lead good quality lives.

Volume: 1

### 2. E-GOVERNANCE IMPLICATIONS AND CHALLENGES

The successful implementation of e-government services is crucial for governments of developing countries [10]. Akman et al. (2005) [1] pointed out that the success of e-government adoption depends on people. Similar to any other innovations, the establishment of e-government brings a number of challenges for citizens as well as for governments. These challenges involve lack of awareness of e-government services, access, trust, security concerns, and the digital divide [4] and are obstacles that public must surmount in the implication and adoption process.

Developed countries take advantage from egovernment services, but there is still much space for improvement [16]. A number of challenges involved in the adoption of e-government services still exist, which leads to the low levels of the adoption of e-government services. Some

Volume: 1

researchers [16,4] have proposed the necessity for more study in the area of e-government adoption.

The Information Technology (IT) adoption is highly significant as e-government services are mostly provided using ICT. Adoption of e-government systems can be extended as per this understanding [19]. The e-government challenges can have a substantial effect on the development of government organizations' strength to provide digital services and transactions. Majority of challenges include poor ICT infrastructure, security and privacy issues. Security and privacy of information is crucial technical challenge recognized in this study and important issue for e-government implementation in the world [21].

There is a leading role of government in developing the ICT infrastructure as this is a fundamental need for successful e-government adoption. This can be ensured that the nation's internet backbone and the International Gateway are managed reliably. In addition, to reduce the rates for internet access through ISPs government should encourage developing of fiber optic network for efficient broadband communication [20]. The government should establish a favorable atmosphere for the adoption of ICT in everyday lives of people as this is the prerequisite of e-government.

### 3. E-GOVERNANCE IN DEVELOPING COUNTRIES: NEPAL CONTEXT

Nepal is located in the southern region of the Asian continent. South Asian countries are similar in a variety of ways, such as geography, IT infrastructure, literacy rate, and e-government services development and adoption. According to Almakki (2009) [2], Asian countries have challenges, such as the lack of good IT infrastructure as well as cultural issues. Egovernment is in its infancy in the developing where countries share common nations, challenges in the implementation of egovernment services. The goals of the egovernment of Nepal are to increase efficiency, effectiveness, transparency, and accountability in enhancing delivery of public services to its people. ICT infrastructure and networks are the backbone to implement e-governance. Nepal Telecom Company (NTC), the state-owned telecom operator, has been the major builder and operator of the national telecom network. NTC along with other private companies provide telecommunication services in the country. They provide the services of land line phone, GSM mobile, C-phone, sky phone, sky data, internet, V-SAT and ADSL. As compared to other sectors, the telecommunication facilities have been enhanced considerably in recent years. The growth of telecom facilities in Nepal is satisfactory but still the rate of use of internet is low. In the meantime, more than 35 internet service providers are providing services and total international internet bandwidth used is in the ratio of 1: 2.25 with 58 Mbps and 122Mbps for uplink and downlink. More than 8%rural village development committees have lack of telephone facility. Majority of telecom facilities are centered in urban areas of the country.

The UN E-government survey 2012 found that many countries have put in place e-government initiatives and ICT applications for the people to further enhance public sector efficiencies and

Volume: 1

streamline governance systems to support sustainable development. Among the government leaders, innovative technology solutions have gained special recognition as the means to revitalize lagging economic and social sectors. In five years, all the government agencies in Nepal would be interconnected via network and Nepal will provide public-centric and transparent services for its people. It will establish the knowledge-based society through this. At the end, Nepal will maximize the use of ICT to create values for individuals, organizations and all other parts of society, and create synergy effect through networking. According to the latest E-Government survey by the United Nations (UN), progress in online service delivery continues in most countries around the world.

Public Participation, Public Service Delivery and Bureaucratic Reform

E-governance allows people to communicate with government, participate in the governments' policy-making and public to communicate each other and to participate in the political process [15]. A successful implication of public service delivery (PSD)requires that governments develop better capacity to handle potential hazards. Such distinct systems, with different socioeconomic and political institutional environments influence the effectiveness of collaborative service delivery management between the countries. Claimed advantages are dependent on a government's ability to monitor new relations, issues and uncertainties. Thus, it needs to recognize the government capacities needed for efficient PSD and identify how they are used in different countries.

In order to overcome political and legal barriers, a transparent dealing of employees is becoming the regulation rather than the exception [5, p. 206]. Federal contractors are needed to fulfill with the minimum wage requirement. PSD may challenge the political legality of the government by delegating to private contractors the power of implementation that influences the public interest. Public concerns such as honesty, decency, integrity, accountability and impartiality may be weakened. PSD quality is a multifaceted notion. Therefore, it is difficult to estimate quality. The quality of PSD in some extend suffers from efficiency and cost.

# 4. THEORETICAL FOUNDATION OF THE STUDY

The present study is based upon some well-known theories. Some of them are given below:

### 4.1 Policy Network Theory

Policy network theory offers theoretical framework to observe policy making. Policy network theory provides a lens through which the interactions between groups or networks involved in policy making and their influence can be examined on the policy process. Dowding (1995) [6] and Marsh and Smith(2001) [12] agree that there are four main approaches to the study of policy networks: (1)the rational choice approach; (2) the personal interaction approach; (3) formal network analysis; and (4) the structural approach. Borzel (1998) [3] and Marsh and Smith (2001) [12] suggest that only a small minority of policy researchers attempt to confer any theoretical/explanatory power on the concept.

Policy network theory is useful to describe and explain e-governance policy-making processes in the developing countries and Nepalese context. However, limitations in the generic model appear in capturing the fundamentally different political and administrative systems, remarkably different cultural values in the applicability of some research methods common in developed countries [18]. It should be addressed which political and cultural aspects turn out to be different in Nepal and how they affect methodological and practical problems.

### 4.2 Theory of Intrinsic Motivation

This is the theory which can be described as a motivation to engage in activities that enhance or maintain a person's self-concept. It further states that the reward of performing an activity is the process of the activity itself and not an end result. Intrinsic motivation is when people are motivated by internal factors, as opposed to the external drivers of extrinsic motivation. Intrinsic motivation drives individual to perform things for the fun. The motivation is required to eliminate users' conservatism, fear of changing the environment and lack of involvement. Modern ICT and e-governance development allows people for engagement in government activities. This theory is widely used to understand information system related human behavior.

# 5. CONCEPTUAL FRAMEWORK DEVELOPMENT

The logical framework on e-governance is provided in figure 1. As a service provider, the state or government increasingly transforms into a regulator of outsourced or privatized services.

The government policy-making will remain unaffected by changes of outsourced services.

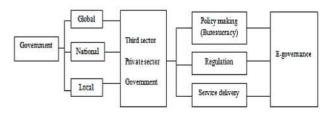


Figure 1: Logical model of e-government

The government has three prominent functions: operations, policymaking, and regulation. The globalization and liberalization policy force government to distinguish more clearly on each of these three functions. The policy-making function is increasingly divided between the global, the regional, the national, and to the local levels, involving each time actors from civil society and the private sector [10]. More or less the same can be stated as the operational function, from which the government is increasingly moving forward. The regulatory function, remains primarily at the nation-state level and involves non-state actors such as consumer organizations to a limited extent.

There are different stages of e-government, which reveal the extent of technical complexity and interaction with users: information dissemination (one-way communication); two-way communication: service and financial transactions: integration and political participation. The basic form of e-government uses IT for disseminating information, simply by posting information on the web sites. Two-way communications are characterized as interactive mode between government and public. In this stage, the government incorporates email systems as well as information and data-transfer technologies into its web sites. An appropriate

example is the Social Security Administration's web site, where the agency receives new Medicare card applications and benefit statement requests, then processes and responds to service requests.

A proposed framework for e-government is presented in Figure 2. The framework presents four key variables of the service operation from an e-governance perception. These include linkages in terms of G2G, G2C and G2B; focus on customer service and cost cutting through trouble-free service delivery in a timely manner. It focuses the need to minimize bureaucratic problems. It is characterized by uncomplicated communication technology applications including telephone and VoIP to maintain a bilateral communication network. It delivers key form of e-services using an efficient workforce. Furthermore, it aims to empower public, reduce administrative corruption, increase efficiency in service delivery and improve in areas such as government finance. transparency, responsiveness, and civil service performance. Figure 2 presents the research model of egovernment adoption.

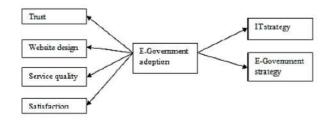


Figure 2: Conceptual Framework

The dependent variables on e-government adoption are trust, website design, service quality and satisfaction. Moreover, IT strategy and e-government strategy are also the constructs

influencing e-government adoption. The framework also provides the primary governance implementation. In addition, it focuses that the e-government services are not trouble free. A systematic interchange of challenging issues, together with the political, socio-economic, and cultural environment may influence the policy making and implementation of e-governance architecture in developing countries. As a cost-saving and time saving mechanism e-governance has the potential to contribute to sustainable development as well. The above framework provides some guidance to policymakers and government sector managers with respect to the nature and prospect of such operations. As the significant issues are identified and discussed, it will provide them with a better understanding of the challenges and opportunities of e-governance services. It also provides academics and researchers with prospect of conducting empirical research to further enhance the framework.

The Web technology provides governments to share on demand with the public an information in unlimited quantities. Technology is further responsible to facilitate citizens to bring attention of local, regional and national governments. Though exploiting these capabilities within government systems are barrier that provides environmental, policy, legal, and cultural factors. In order to introduce effective e-Government it requires openness, transparency, collaboration as well as skill intaking advantage of the internet [22]. The high opportunity for two-way interaction between citizens and government creates need for global leadership. government of particular nation has

Volume: 1

opportunity to provide guidance to e-Government objectives by promoting existing open online standards and considering the challenges to the Web and technology.

### 6. CONCLUSION

The implementation of e-governance is a challenging issue in least developed countries. Implementation requires basic components like ICT infrastructures, high speed and cost-effective literacy connectivity. rate. awareness. commitment and financial system. The factors influencing effective growth of e-governance are government process, leadership, roadmap and qualified human resource. The government has taken ICT as a strategic factor as it is an effective means to alleviate poverty. The main challenge to implement e-governance is to coordinate political will, financial resources and technical competency to transform policy into action. Ethics and policies should apply to all the initiatives of the government authorities. The government organizations should refer to these standards and policies when planning or making changes to their e-governance landscape. Ethical standards and policies will have to be regularly reviewed to keep them up to date with the latest technology developments.

### REFERENCES

- [1] Akman, A. Yazici, A. Mishra and A., Arifoglu, "E-Government: A global view and an empirical evaluation of some attributes of citizen", Gov. Inform. Quart., vol. 22, pp 239-257., 2005.
- [2] R. Almakki, Communities of Practice and Knowledge Sharing in E-Government Initiatives. The University of Manchester, 2009.

- [3] T. Borzel, "Organising Babylon On the different conceptions of policy networks., Pub. Admin., vol. 76, pp. 253-273, 1998.
- [4] L. Carter and V. Weetakkody, "E-government adoption: A culture comparison, Inform. Sys. Front., vol. 10, pp. 473-482, 2008.
- [5] C. Clark, R. Johnson and J. Mercer, Impact of Privatization and Managed Competition on Public Employees. In: Local Government Innovation: Issues and Trends in Privatization and Managed Competition, 2000.
- [6] K. Dowding, Model or Metaphor? A Critical Review of the Policy Network Approach. Political Studies XLIII: 136-158, 1995.
- [7] S. Gajendra, X. Bao, X and W. Qiang, "Public attitude, service delivery and bureaucratic reform in e-government: A conceptual framework, Inform. Tech. J., vol. 11, pp. 1544-1552, 2012.
- [8] D.G. Garson, Public Information Technology and E-Governance, in: Sudbury, MA: Jones and Bartlett Publishers, 2006.
- [9] A. Gartner, Majority of e-government initiatives fails or falls short of expectations, Gartner, Inc.'s Executive Programs, San Diego, 2002.
- [10]B. Gupta, S. Dasgupta and A. Gupta, "Adoption of ICT in a government organization in a developing country: An empirical study". J. of Strat. Inform. Syst., vol. 17, pp. 140-154,2008.
- [11] R. Heeks, Most e-government for development projects fail: How can risks be reduced?, I-Government Working Paper Series, Institute for Development Policy and Management, University of Manchester, UK, 2003.
- [12]D. Marsh and M.J. Smith, "There is More than One Way to Do Political Science: on Different Ways to Study Policy Networks", Pol. Studies, vol. 49, pp. 528-541, 2001.
- [13] R. Palanisamy, "Issues and challenges in e-governance planning", Electr. Gov., an Int. J. vol. 1, pp. 253-272, 2004.

- Volume: 1
- [14] T.A. Parks, Few misconceptions about egovernment, The Asia Foundation, 2005, http://www.asiafoundation.org/pdf/ICTeGov.pdf.
- [15] D. Pilling, and H. Boeltzig, Moving toward e-government: effective strategies for increasing access and use of the Internet among non-Internet users in the U.S. and U.K., The Proceedings of the 8th Annual International Digital Government Research Conference, pp.35-46, 2007.
- [16] United Nation E-Government Survey. Retrieved by <a href="http://unpan1.un.org/">http://unpan1.un.org/</a> intradoc/groups/public/documents/UN-DPADM/UNPAN038853.pdf >, [Accessed 15.01.2014].
- [17] D.M. West, "E-government and the transformation of service delivery and citizen attitudes", Pub. Admin. Rev., vol. 64, pp. 15-27, 2004.
- [18] Zheng, M. Jong and J. Koppenjan, "Applying policy network theory to policy-making in China: The case of urban health insurance reform", Pub. Admin., vol. 88, pp. 398-417,2010.
- [19] K.J. Bwalya, "Factors affecting adoption of e-government in Zambia", Electr. J. of Information. Syst. in Dev. Countries. Vol. 38. No.4, pp, 1-13, 2009.
- [20] Alshehri and Drew, "Challenges of e-government services adoption in Saudi Arabia from an e-ready citizen perspective" World Acad. of Sc., Eng. and Tech., Vol.66, 2010.
- [21] Layton, T, Information Security: Design, Implementation, Measurement, and Compliance. Boca Raton, FL: Auerbach publications, 2007.
- [22] J.M. Alonso, O.A. and M. A. Amutio, Improving Access to Government through Better Use of the Web, W3C Interest Group Note 12 May 2009, Retrieved byhttp://www.w3.org/TR/egovimproving/,[Accessed 16.11.2015].