

E-Government, E-Participation and Challenging Issues: A Case Study

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Abstract - E-Government or digital government is a tool for governments to use the most innovative Information and Communication Technologies (ICTs) through digital networks with convenient access to government information and services. “E-Governance” is the application of ICT for delivering government services, exchange of information and communication between government and people. Government services are made available to the people in a convenient, efficient and transparent manner through e-Governance. The objective of this paper is to present how e-participation is important to enhance quality government services in developing countries such as Nepal and need of ethical issues on good governance. This study includes case study on Nepal relating to e-participation and ethical issues on e-government. E-participation plays crucial role for the mutual relationship between government and people to enhance government activities and national development. The major benefits of e-Governance include efficiency, improved services, better accessibility of public services, and transparency.

Keywords – E-participation, e-Government, e-Governance, ethics.

I. INTRODUCTION

E-Government is digital interactions between a government and citizens (G2C), government and businesses (G2B), government and employees (G2E), and also between government and governments or agencies (G2G). E-Government has been understood as being centered on the operations of government, it is now thought to extend the scope by including public engagement and participation electronically. E-Government presents a huge prospective to locate innovative way to meet the satisfaction of people and becoming popular in developing as well as in developed countries. Nepal in this connection has been entering in digital age and people are practicing e-Government services online. Through the e-Governance, the government services will be made available to the people in a convenient, efficient and apparent manner. The major target groups that can be distinguished in governance concepts include government, citizens or people and businesses organization [16]. E-Government should enable people to visit state websites to communicate and interact with employees through the internet, instant messaging, email and audio or video presentations [20]. E-Governance is an IT enabled service provided by different government organizations for improving and upgrading their services effectively [22]. Application of IT helps organizations in becoming more competitive and is an essential ingredient for business survival, and government agencies are no exception to this.

E-Government strategy is crucial for effective e-Government implementation. A strategic plan offers a roadmap for an

organization to move from its current state to its desired medium or long term future state. E-services refer to specific services offered by government online. It includes business related services such as license applications and interactive consulting. It further includes public-oriented services such as application for residency permits, weather and traffic information, and free e-mail services. A number of contacts between the local government and people will take place when specific services are needed. For example, passport, birth certificates, and entry into official databases. The major benefits of e-Government include efficiency, improved services, better accessibility of public services, and more transparency.

E-Government provides a number of challenges for public administrators. Governments are going online and using the internet to deliver public services to its citizens which is called e-participation. Electronic government is thus a government's use of technology, particularly web-based internet applications to enhance the access to and delivery of government information and service to its people, business partners, employees, agencies and government entities [6]. It has the potential to establish better relationships between government and the public by making interaction smoother, easier and more efficient. E-Government can be used as a tool to provide faster and better communication, increase competition, minimize unrestricted power by efficient services, and allowing citizen to conduct transactions among themselves. The governments all over the world are moving toward providing public services through electronic means.

Developed countries take advantage from e-Government services, but there is still much space for improvement [33]. A number of challenges involved in the adoption of e-Government services including Nepal still exist, which leads to the low levels of the adoption of e-Government services. Some researchers [6] have proposed the necessity for more study in the area of e-Government

adoption. E-Government services are believed to bring positive changes with businesses and public. As such, e-Government services help to improve the competitiveness of business environment to create intelligent customers, helping businesses save time, enabling a good tool in dealing with corruption.

The purpose of this paper is to present how e-participation is significant to increase quality government services in developing countries such as Nepal and need of ethical issues on good governance. Majority of the developing countries do not have the basic infrastructure and technologies for going online and in the absence of Internet infrastructure. Individuals do not have a choice connecting to the web [27]. A country needs to make sure of availability of infrastructures and knowledge for going online. The basic infrastructures include computers, telephone lines, mobile phones, broadband connections and so on. The higher level of access of these resources in a country will create a supporting environment for going online. A public access to the available facilities and knowledge need to be ensured. E-Government as a vehicle of modern paradigms of administration and politics that can be integrated meaningfully into existing measures aimed at promoting public-sector reform, democracy, and economic development [18]. According to Gauld et al. (2010) [17], governments around the world are motivated to promote public interaction because of the accessibility and affordability of ICTs. Many governments in the world are developing more complicated ways to promote active e-participation in governmental activities, offering them more effective access to e-Government services. With this change and the rapid growth of ICT, the paradigm has shifted from traditional government to electronic government.

II. LITERATURE REVIEW

E-Government and E-Governance

E-Governance and e-Government are the terms treated to be similar; however, there are some differences between the two. E-Government is the use of the ICTs in public administrations combined with organizational change and new skills to improve public services and democratic processes and to strengthen support to public policies. The governance of ICTs requires a substantial growth in regulation and policy making capacities, with all the capability and opinion making processes among the different social stakeholders of these matters. Hence, the perspective of the e-Governance is "the use of the technologies that both help governing and have to be governed" [28]. The important components of e-participation include e-inform, e-consult and e-decisions. Technology enabled participation is significant for the emerging governance relationship. Government is motivating to citizen with digital channels through which they can communicate effectively and cooperate with government in the creation of public value. Government has been using ICT to facilitate citizens to inform public

service organizations what are their requirements and what they think about a range of issues. Public service organizations can use public feedback to drive improvements in service delivery and as the basis for communications strategies to shape public perceptions of the government. This level of participation involves government: soliciting and acting on public feedback and managing the e-participation.

The government has a key role for the transformation of its operational activities to its citizens. It has to monitor the provision and the providers of the services, along with their qualities, their prices, and public accessibility to them. The globalization arises on policy levels, a global and concurrently a local level, as well as intermediate regional levels, above and below the nation-state. If the government is not merely go around by these new policy levels, it has to find ways to articulate its activities such as decision-making, operations, and regulation with the actions going on at various levels. Figure 1 shows the conceptual framework of e-Government on policy level.

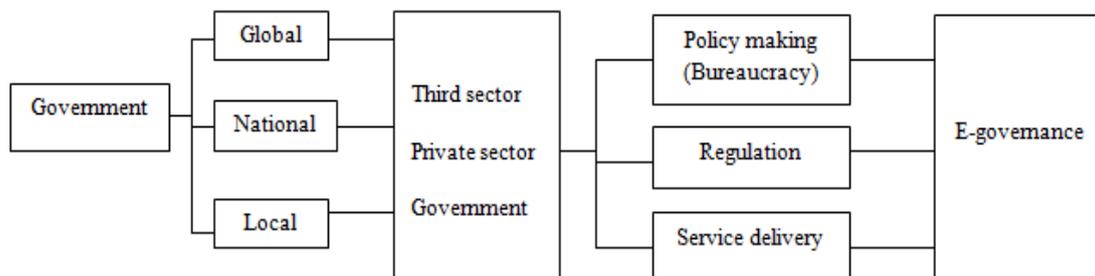


Figure1 Conceptual Framework of E-Government

Establishing good governance and public administration has become a main concern for sustainable socio-economic development. It has been identified that development can't take place without sound and capable governance. Institutional and economic factors play important role for the pace of the implementation of e-Governance in the governments. In this context, a majority of countries have initiated improvements to public services aimed at the

implementation of good governance. It has also been recognized that in public or private, small or large, the efficient use of ICT can considerably develop institutional and organizational performance. This is also acceptable for public administration and governance where ICT can shorten procedures, increase communication speed and assist decision and policy-making. All countries resolved to fight against poverty and accelerate overall social and economic

development, the implementation of e-Governance can make a precious contribution. It facilitates to create new jobs, courage the development of business, increase e-participation in decision-making and improve the effectiveness of government services. In this connection, e-Governance can contribute to capacity-building, enhance the accountability of governments and increase citizens' trust in them [30].

Ethics in E-Government

The E-Governance ethics provides a road map for use of electronic records and electronic signatures in government and its agencies by promoting efficient delivery of government services. E-Governance is a step towards better administration by facilitating transparent, speedier, responsive and non-hierarchical system of governance. Better administration leads to effective management of delivery of governmental services and this comes from managing e-Governance ethical processes. Trust is considered a crucial element with regard to social capital, and exists on four levels: the individual (psychological), the interpersonal (one to another), the relational (social glue), and the societal (functioning).

Some important ethical issues connected to e-Governance are e-communication legislation, e-commerce legislation, e-procurement legislation and database legislation [29]. The e-Governance implication needs to make the trust of people. It needs to make sure that the data and transactions of the information are secure.

The information shared by the public should also remain safe and the privacy of the people needs to be preserved. Whenever an individual gets into any transaction with a government agency, he discloses a lot of personal information, which can be misused by the private sector and anti-social elements. Thus, the public should be ensured that the information flow would pass through reliable channels and secured network. Trust in cyberspace emerges as an important factor, once the communications networks enable unprecedented level of convenience in the

workplaces and homes, i.e., online shopping and e-transaction, which may affect the quality of life in a positive way [7].

E-Government implementations must reflect on security and privacy to ensure information systems and individual rights are respected. Generally security refers to protection of the information systems resources and controlling access to the information itself. The online culture of disclosure holds important promises for people, including empowerment of themselves and others, the creation of communities of support around shared struggles and the development of a broad ethical sense of responsibility with respect to privacy [31]. Good governance is one of the most important public concerns that the government can deliver 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.

Perceptions of trustworthiness could impact public intention to use e-Government services and reflects ethics on e-Government adoption. Bélanger et al. (2002) [3] define trust as 'the perception of confidence in the electronic marketer's reliability and integrity'. People must have self-assurance in both the government and the related technologies. Other ethical issues such as privacy and security are critical issues in e-Government research [3, 4]. Extending the study of McKnight *et al.* (2002) [23] establish measures for a multidimensional model of trust in e-Government, focusing on users' initial trust in an internet user. Initial trust refers to 'trust in an unfamiliar trustee, a relationship in which the actors do not yet have credible, meaningful information about, or affective bonds with, each other'. In initial relationships, people use whatever information they have, such as perceptions of a web site, to make trust presumption.

Public Participation

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 [11]. In this sense, e-governance has more implications than e-government. E-government refers to the use by government agencies of ITs, such as web-based networks, the Internet, and mobile computing, that have the ability to transform relations with public, businesses, and other parts of government. These technologies can serve a variety of different ends such as better delivery of government services to people, improved interactions with business and industry, citizen empowerment through access to information, or more efficient government management [15]. The ultimate benefits can be less corruption, increased transparency, greater convenience, revenue growth, and cost reductions.

E-participation refers to the ICT-supported participation and processes involved in government and governance. Processes include administration, service delivery, decision making and policy making. E-participation is the use of ICTs to broaden and deepen political participation by enabling people to connect with one another and with their elected representatives [21]. E-participation is very crucial for any e-governance initiative. In a government-to-consumer context, various studies have found individual characteristics that affect attributes of e-government, such as quality of government website, access to e-government, measurement and assessment of benefits infrastructure, and intention to use e-government [5]. The outcomes from these studies are vast and confusing that conceptual clarity is required to locate positive view of e-government adoption.

IV. E-GOVERNMENT IN NEPAL, E-PARTICIPATION AND CHALLENGING ISSUES: A CASE STUDY

This study is a case study based on qualitative research method. The source of qualitative data collection was from interview with experienced IT professionals who are full-time IT faculty members and employees of Kathmandu University, Nepal

as well as representatives of High Level Commission of Information Technology, Nepal. Moreover, literature review and e-government websites were used for related information collection. The interview was conducted from August 15 to September, 2012. The population of respondents was 20. The participants having more than two years of experience in IT was chosen for interview. Out of them, best opinions of 10 interviewees was included in this study. The questionnaires were focused on adoption of e-governance in Nepal, public participation and awareness of government policies, goals, programs and delivery of government services with ethical manner. The responses were recorded manually and analyzed for study. The interview questions were designed as follows:

- How effective do you find the development of e-government in Nepal?
- Have you participated in any e-government activities?
- What are the major e-government services in Nepal?
- How successful is Nepal in e-government compared to other developing countries?
- How online government services are effective for its people?
- How active are the people for e-government participation?
- How e-government services can be conducted into an ethical manner?
- What are the problems and challenges for e-governance in Nepal?

V. CASE FINDINGS AND DISCUSSION IMPLEMENTATION OF E-GOVERNANCE IN NEPAL

E-governance has become a popular focal point of government efforts in many developed countries. Table 3 shows different challenging factors found in implementation of e-governance in Nepal. Nepal is one such least developed country that has engaged on an e-governance initiative with a number of challenges. It is arguable that e-governance has the capacity to reduce administrative and development issues but additional effort is

necessary when implementing e-governance in developing or underdeveloped countries like Nepal [9]. In this connection, e-governance helps to increase efficiency and transparency in government transactions, and facilitates democratic interaction between the government and its people.

The initial step in implementing e-governance in Nepal is recognizing how the e-governance program's objectives and challenges relate with the vision and strategies developed by the government. This includes business process re-engineering (BPR), which involves legislation, training, coordination, policy, as well as finance and strategy. The Nepalese BPR strategy should involve e-governance, under which high-level political leadership will be characterized by support rather than administration. Human resource development (HRD) is another major factor in the implementation of e-governance. It is as important as the technology to be used. Without a sufficient amount of human resources and technological preparation, no amount of development and expenditure will carry Nepal forward into the information age.

There are some important issues related to HRD. The first issue is connected to planning of HRD. A way to develop a practical and strategic implementation plan for ICT, HRD should be identified. The second issue is regarding qualified training institutions developing human resources for e-governance. The training institutions' competence building should be given priority. The third issue is connected with an immediate and effective strategy for e-government training, so that trained manpower do not move to another country. The fourth is the availability of ICT skills in Nepal.

Nepal is still at an initial stage of e-governance development and implementation. In the meantime, the country has achieved some progress in ICT sector but it is not sufficient to implement e-governance throughout the nation. The popularity of ICT and e-governance has been

increasing. The government is dedicated and committed to promote e-government.

There are a number of challenges as well as opportunities. For the effective implementations of e-governance it is mandatory to improve basic foundations such as literacy rate, ICT infrastructure, awareness, funding, and commitment. In addition, the cooperation from government officials and leadership commitment is important.

"In my opinion this is a serious case as Nepal's economy is growing slowly. We can introduce new ICTs into our industry to improve efficiency, quality and productivity. As for the ICT industry, it is fast growing and challenging to us. We are not taking full advantage from the government. We can build up ICT infrastructure if we have good government policies, infrastructure, qualified manpower and other requirements." (Interviewee 1).

E-government master plan is a long term vision and strategy to implement e-governance in Nepal. E-Government master plan should evaluate and discover current status and destination. The pilot projects undertaken should be carefully evaluated.

The causes of failure should be investigated and documented. As per this evaluation, new vision and strategies should be developed and implemented.

"Previous government system as well as monarchy had lack of response and efficiency in e-government services. E-government establishes the public structure and encounters violent conflicts of power and interest. The main challenge of e-government is to provide cooperation between its departments for an effective networking system with transparent functioning. The government should encourage people to participate in its activities and corruption should be fully eliminated" (Interviewee 2).

The most crucial component when encountering the challenges of e-governance implementation is to develop a realistic strategy in terms of the scope and size of the programs. Leadership is very important

factor that provides the vision and drives the nation. Thus it is essential to increase the awareness among the leaders about the importance of e-governance. Leaders should be committed and furnish high priority to e-governance system. Appropriate people should be appointed at the right place which will develop the commitment to the implementation of e-governance.

“High security is needed in e-government service delivery. Some government departments do not cooperate on this. They have lack of qualified IT experts and people have lack of awareness on e-government services. We know that our country has deficit of energy so high rate of load shedding” (Interviewee 3).

“Government should implement IT policy and e-government ethics strictly. Now the second phase of constituent assembly election is approaching, government should encourage people to actively participate in its activities. The e-voting system should be expanded and improved” (Interviewee 4).

Nepal has lack of good electricity supply, telecommunication and internet access throughout the country. Hence, long term investment should be made on building ICT infrastructure. Though, Nepal is a country of difficult landscape, the more focus has to be given to develop wireless networks in the country. The government integrated data center has to be implemented immediately to its optimum level. Internet penetration should be improved. The quality and capacity of ICT connectivity needs to be improved. Government should take immediate steps to the direction of developing local area networks in all government offices and then inter-connected with other offices through wide area networks

“When we publicize government policy, the second level departments won't respond as quickly as before, or sometimes there is no response; and we lack means to handle this situation because it's hard to control them. Coordination is required between the government agencies. Government has to expand its e-services to rural areas also.

Nepal has difficult terrain, lack of infrastructure and electricity. These issues should be cleared focused” (Interviewee 5).

“...the people living far from the cities have lack of IT awareness. Majority of them are illiterate. Top leadership enjoys consolidating their power and enlarging their direct control. Some political leaders visit rural areas during election campaign. Some of them do not have well knowledge on e-government concepts” (Interviewee 6).

People must be aware about the e-governance system, its benefits and mechanism of its operation. People of different fields are involved to participate in e-governance system, thus frequent public awareness programs has to be organized. Nepal has low literacy rate and technological culture; frequent training programs will be much effective in a short period of time. Likewise, regular awareness programs will assist to convince people and ensure the privacy and reliability of the system. Each Ministry should develop IT department to monitor and track the progress of the e-governance projects.

“...it is a great reform, e-government enhances the capability of government departments. With more autonomous policy, we can set down and carry out e-governance plan smoothly, as well as implementation of upper level policy. As you know that the newly established government department, High Level Commission of Information Technology is more responsible for adopting e-governance services” (Interviewee 7).

Majority of the e-governance projects in least developing countries fail to continue for a long period of time. The influencing components are financial factor, technological factor, political factor and social and environmental factor. So it is crucial to develop long term e-government projects. Government funding after stopping the external funds, consistent evaluation and monitoring of e-governance projects, involvement of all stakeholders, public leadership commitment are the key processes to develop sustainable e-governance models.

“...it seems really challenging to adopt ICT policies, cyber law and e-government ethics. How can we think that people living in Himalayan region knows about computer and IT? The government is city focused, let’s say people of Jumla and Dolpa do not know about computers. As you know that the road transportation has recently reached there, but people have high illiteracy rate.”

(Interviewee 8).

“Although local ICTs infrastructure and e-government develop rapidly, the application is insufficient. A number of civil servants still prefer working in the real world than utilising e-government facilities. They usually use computers for word processing and exchange internal information online, but so far they continue to print paper files. Less than a half of departments have timely online interactions with customers and more than one third of government websites have no regular updates (Interviewee 9).

Nepal e-government allowed for considerable progress in improving government capabilities, providing better public service, introducing democracy, and leading wide-ranging social development. People actively dealt with structures with the aid of ICTs and facilitated a series of social changes to sustain the new institutional properties brought by e-government. These are the successful factors of Nepal case.

“Middle-level officials show different views and attitudes towards e-government. Few of them either fully support or fully resist the e-government project. They generally agree to apply ICT to improve the efficiency of daily schedule and support the view of providing better public service through innovation (Interviewee 10)”

Nepal government perceives the potential of ICT as a driving force for economic growth, so that when e-government came into existence, such as public administrative reform and industry restructuring were conducted through this ICT application. E-government is being maintained through human actions, including top leadership’s commitment, middle-level official’s coordination, operational staff’s learning and

working, and public recognition and support. In this case, the top leadership serves as both decision-makers and designers. E-government projects fail in some Asian and other developing countries. Although e-government in Nepal lags far behind developed countries, this should be considered more as a lack of capacity of the nation.

South Asian countries including Nepal 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. E-Government is in infancy in the developing nations, where countries share common challenges in the implementation of e-Government services. The goals of the e-Government of Nepal are to increase efficiency, effectiveness, transparency, and accountability in enhancing delivery of public services as well e-participation 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 122 Mbps for uplink and downlink.

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 [16]. 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.

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 streamline governance systems to support sustainable development. Among the e-Government leaders, innovative technology solutions have gained special recognition as the means to revitalize lagging economic and social sectors[32]

Country	World e-Government ranking			E-Government 2012
	2008	2010	2012	
Maldives	95	92	95	0.4994
Sri Lanka	101	111	115	0.4357
India	113	119	124	0.3829
Pakistan	131	146	156	0.2823
Bhutan	134	152	152	0.2942
Bangladesh	142	134	150	0.2991
Nepal	150	153	164	0.2664
Afghanistan	167	168	184	0.1701

Table1. E-Government rankings in South Asia; Source: UN (2012) [34]

Table 1 shows the e-Government ranking among South Asian nations. Nepal holds 164th position in 2012 in world e-Government ranking. As compared with least developing countries for e-Government adoption, Nepal has been in satisfactory position. There may be a number of reasons and issues on e-Governance development.

Korea government and Asian Development Bank are helping to Nepal for the development and implementation of e-Government system. E-Government master plan was already prepared but yet to be implemented. Development in online service delivery continues in most countries around the world. The United Nations E-Government Survey 2012 finds that many counties have put in place e-Government initiatives ICT applications for the people to

further develop public sector efficiencies and reorganize governance systems to maintain sustainable development. Among the e-Government leaders, modern technology solutions have gained special recognition as the means to invigorate lagging economic and social sectors. The overall conclusion that emerges from the 2012 Survey is that while it is significant to continue with service delivery, governments must increasingly begin to reconsider in terms of e-Government and e-Governance. An important feature of this approach is to broaden the scope of e-Government for a transformative role of the government towards consistent, coordinated, and integrated processes and institutions through which such sustainable development takes place.

SAARC countries	Internet user in % population	Total computer user	Computer user %	Total mobile
Afghanistan	1.76	110743.3	0.39	7898900
Bangladesh	0.36	3511145	2.25	50400000
Bhutan	0.72	17347.64	2.51	251000
India	7.00	36789349	3.18	601223402
Maldives	18.09	80218	20.24	435600
Nepal	1.75	137104.2	0.48	4200000
Pakistan	1.06	768145.7	0.44	97579940
Srilanka	5.46	801812.1	3.76	11082500

Table2. ICT distribution situation of SAARC countries (Sources: M.I.S., Nepal Telecom Central Office- 2011, Nepal Doorsanchar Company Limited [24])

Table 2 presents the ICT distribution situation among SAARC Countries. Different study shows that technical problems and qualified staff are the most common challenges in e-Government services adoption [19, 25]. The adequate capability of the network handles the traffic of the provided electronic services. Data privacy and trust in the services are influencing components in the adoption of e-Government services, which was previously studied [10, 25]. A number of researchers [8, 11] also connected security and data privacy assurance to user trust. The investigation shows that proper assistance, lack of awareness, and guidelines influence the acceptance and adoption of e-Government services by people. Thus, the government should run thorough advertising movements to make sure that people are aware of and use the government services. Similar findings have been observed by [1]. Other important infrastructures are telephone and fax numbers of personnel with whom public might need to get in touch, and the incorporation of an offline channel with online channel so that people could interact with government departments through other means.

VI. CONCLUSION

E-Government offers a huge opportunity to find innovative way to reach the need of the people. Innovation of new and modern technologies allows electronic services to be applied in e-Government. Governments worldwide are transforming their organizations and function in order to move to e-Government due to the implementation of ICT. The implementation of e-Government is challenging in Nepal but it has a number of benefits for people. Successful implementation of e-Governance can be more challenging for developing countries. As such, e-Governments of developing countries may face primary obstacles, such as lack of basic IT infrastructures, appropriate IT applications and IT professionals, from which developed countries with sufficient resources would not suffer more. Developing countries were reported to have comparatively limited technological and human resources and potentially less efficient management skills of these resources, thus may have to take more hazards compared to industrialized countries in implementing the e-Governments. Successful implementation of e-Governments can be a very crucial issue for these decision-makers among developing countries, as the failure of these e-Government initiatives can bring grievous impact on their political stability. Countries were willing and able to implement e-Governments when they had sufficient

technologies, and infrastructures and skilled IT human resources. This inconsistency may come from the differences between measures of success, satisfaction and the e-Government performances and the e-Government readiness index. Developing countries like Nepal needs to develop an ecosystem for the growth of IT sector, effective implementation of polices provisions and strategies.

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(Arranged in the order of citation in the same fashion as the case of Footnotes.)

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