

Challenges, Opportunities and Status of E-Governance Implementation in Nepal after Federalism

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Abstract— Today e-governance becomes an important aspect in most of the developing countries, but most developing countries are still far behind it. Over the last one decade Nepal has seen tremendous political transformation. Nepal government has shown a clear vision on implementation of e-governance by deploying their master plan for e-governance (EGMP) in 2006 but still Nepal is far behind in e-governance development index (EGDI) by UN e-government survey. So, this paper will try to enlighten and appraise the e-governance system of Nepal and significant challenges, opportunities and current status of e-government.

Keywords— EGDI, EGMP, TII, HCI, OSI, ICT

I. INTRODUCTION

Nepal is one of the developing countries who take initiative to use information technology in government sector by using IBM1401 system for their census 1971. but after that first initiative further progress is not seen in field of ICT. Further in late nineties to early twenties they have introduces

computer education in school or other higher studies [1], [7]. Nepal has introduced personal computer in 1985 for distribution and in 1993 internet has also been introduced but government has established science and technology ministry in 1996. Government of Nepal has taken initiative to start ICT development project during 2008 to 2014. The year wise step by step growth of ICT in Nepal has been shown in table 1.

Table-1 ICT Growth in NEPAL [3], [4], [5]

YEAR	MILESTONE IN HISTORY OF ICT BY NEPAL
1972	Introducing IBM1401 computer for census 1971-1972
1974	Electronic Data Processing Centre has been established
1985	Personal Computers has been distributed
1992	Computer Association of Nepal has been founded, National Broadcasting Act and National Communication Policy has been introduced
1993	Internet in Nepal has been introduced
1996	Establishment of Ministry of Science and Technology
1997	Declaration of Telecommunication Act 1997
2000	Promulgate first IT Policy, "IT Policy 2000."
2001	NITC was established
2003	IT Park is founded in Banepa, Nepal
2004	Electronic Transaction Act and Telecommunication Policy 2004 has been introduced

2007	Electronics Transaction law has been formed
2008	ICT Development Project (2008-2014) has been started
2010	Promulgate revised "IT Policy 2010."
2011	Telecom Authority has launched one decade (2011-2020) Master Plan
2012	Establishment of Department of Technology
2013	Education Master Plan 2013-2017 with ICT initiative
2014	IT Umbrella Act has been drafted
2015	Introduction of National IT Roadmap, E-GMP 2, Broadband Policy 2015, IT Policy 2015, Promulgate Nepal constitution 2015

Above table has clearly shown a chronological ICT development in Nepal. To deliver government services, information exchange, and various services like G2C, G2B and G2G, ICT uses e-governance as an application. Using e-governance any government provide its services in an easy and effective way. It can easily stated that e-governance is an effective way to achieve good governance. The main target groups in governance are as follows-

- Government of that nation
- Citizen of that nation
- Business

To understand e-governance one have to first understand the role of ICTs to improve public services. The main goal of developing countries to harness the capacity of ICT to promote or increase the ability to govern.

Main purpose of e-governance is to streamline public administration in nation without having boundaries in states. For this the main objectives are as follows-

- To increase the public value
- Building statistical support
- Co-ordinate and co-operate between stakeholders
- To rise in quality of internal operation
- To rise in Decision support system
- Rise in citizen oriented services

By fulfilling these objective citizen oriented system can be streamlined as a process of e-governance. Researchers

are identified some key phases in e-governance adaptation as follows-

- EMERGIND as stage-1.
- ENHANCED as stage-2.
- INTERACTIVE as stage-3.
- TRANSACTIONAL as stage-4.
- CONNECTED as stage-5.

II. CURRENT E-GOVERNANCE STATUS OF NEPAL

The accomplishment aspect for e-government depends on situation and gratified of specific country [7], [8]. The use of ICT based services play an important role in development of any nation. Nepal is a nation with diverse cultural as well as geographical aspects. In development of any country context and content plays an important role. In view of Nepal, research advocates that context like political and directorial will, literateness rate, topography and demography, and legal agenda are still critical subjects in employing e-government in Nepal [1], [4], [5]. ICT based infrastructure is at low level in Nepal. In remote area people has to travel lot in order to access government services. The literacy rate in Nepal is also low. There is huge political instability in Nepal which also plays important role in lack of ICT based infrastructure. The following section will deliver an assessment of context (e-governance growth) of Nepal and content of primary plans (IT Policy 2015, EGMP, and draft Umbrella Act). Table 2 presents EGDI rank of Nepal in various years.

Table-2 Year wise EGDI Ranking

YEAR	2018	2016	2014	2012	2010	2008	2005
EGDI RANK NEPAL	117	135	165	164	153	150	126

Table 3 represents the comparison of Nepal with other SAARC nation on various indexes [6].

Table 3- Comparison of Nepal with Other SAARC Nations [6]

Countries/Index	e-Government Index	e-Participation Index	Telecommunication Infrastructure Index(TII)	Online Service Index(OSI)	Human Capital Index(HCI)
Maldives	0.5615	0.4101	0.5159	0.4931	0.6754
Sri Lanka	0.5751	0.6292	0.3136	0.6667	0.7451
India	0.5669	0.9551	0.2009	0.9514	0.5484
Pakistan	0.3566	0.5	0.1529	0.5486	0.3682
Bhutan	0.4274	0.5281	0.308	0.5	0.4743
Bangladesh	0.4862	0.8034	0.1976	0.7847	0.4763
Nepal	0.4748	0.7809	0.2413	0.6875	0.4957
Afghanistan	0.2585	0.3202	0.1138	0.3056	0.3562

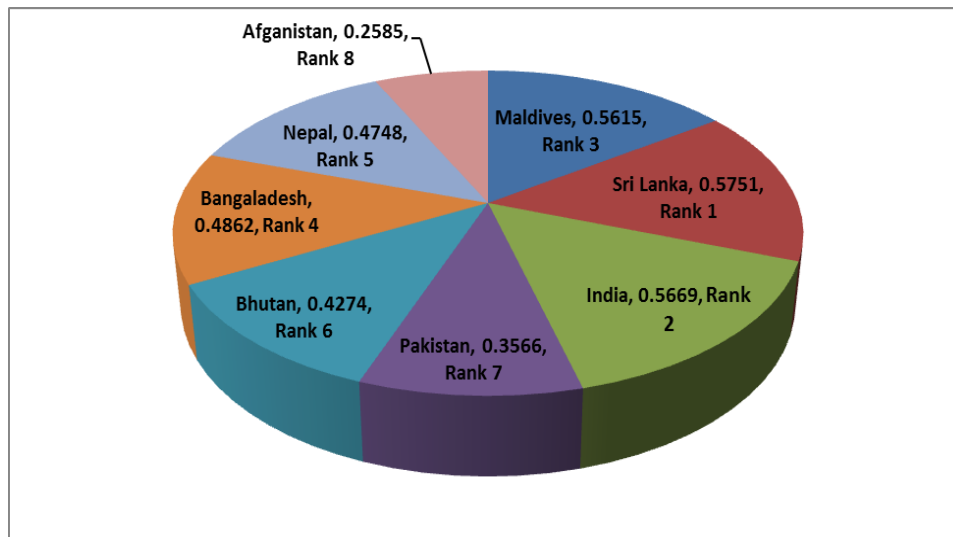


Fig.1-Comparison Chart of e-Government Index 2018 of SAARC region [6]

Figure 1 clearly shows the comparative analysis and position of Nepal in SAARC region on the basis of e-government index 2018. Table 1, 2, 3 and figure 1 clearly shows that there is lot of opportunities in Nepal for the growth of e-governance.

In 2014 the ministry of Federal Affairs & Local Development has taken initiative to strengthen the It infrastructure and digitize the working of government. Various government projects like E-Village, E-Attendance, G-Cloud, and other mobile apps have been initiated. Although in past three to four year Nepal has improved lot in their ranking, but the implementation of e-government master plan (EGMP-2015) needs lot of effort on ground [9]. If we talk about SAARC countries, countries like Maldives and Bangladesh has shown more improvement in e-governance implementation. The e-participation, OSI, TII and HCI index of these countries are also better then Nepal.

III. CHALLENGES

Lot of literature work and studies has been done in past for finding the challenges regarding implementation of e-governance in nations such as Oman, Egypt, and Ukraine [10]–[14].

The key finding for most of research is political, organizational, structure, demographic, communal and financial factors of a nation as the key hurdles in implementation of e-governance. On analyzing these factors it can be viewed that these factors varies country by country. Thus one cannot define any universal modal for implementation of e-government to achieve good and effective governance. That means good governance varies from nation to nation [15].

Moreover, there are also some studies on e-government implementation of Nepal [1]–[4]. Nevertheless, outcomes are

similar to the above literature, but the situation and content for Nepal are diverse than the nations stated above. The dissimilar geography and political unpredictability underwrite more to contain the growth of e-government development.

Nepal has also gone through a huge political establishment. In last one and half decade country has seen many transforms. In 2006 it transforms from Maoist revolution and a century-old Hindu dominion to a secular democratic republic, with the temporary constitution. Finally, in 2015 Nepal passed a milestone constitution which confirms Nepal as a secular democratic republic [5]. From 2008 to 2018, Nepal has been governed by 11 prime ministers, which illustrations how unhinged Nepali politics is [1]-[5].

Beside all these above mentioned challenges Nepal government is working on e-government by enforcing its e-governance master plans (EGMP-I and EGMP-II). These efforts rise in number of telephone and internet users in Nepal as compared to past.

IV. CONCLUSION

The above study shows that the implementation of good governance is based on e-governance, and to implement e-governance Nepal need a lot of reforms. Nepal has massive challenges accompanying with dissimilar geography, social, linguistic, and religion, to practice devolution. To improve EGDI Nepal need to improve in Online Service Index (OSI), Telecommunication Infrastructure Index (TII), Human Capital Index (HCI) and e-Participation Index. For this government have to work on local government bodies by making a robust plan so that the infrastructure in diverse area of Nepal can be created. Nepal government has also taken initiative on E-education and E-Learning. The major root cause for slow progress on e-government development in Nepal is political instability, education and diverse geography. Based on various literature reviews the main barriers in implementation of e-governance are ineffective IT infrastructure, lack of awareness for services provided by e-government, lack of trust also decreases e-participation due to security aspect, less IT based training, lack of reachability in remote areas. Thus there is a need for sustainable model for effective implementation of e-governance in Nepal.

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