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# ICT and Service Delivery Mechanisms in Civil Service of Nepal

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**Abstract**— *The proper use of Information and Communication Technology (ICT) has made human daily activities easy and fast. The service delivery mechanism of government, department and business organization has been fast, efficient and reliable. The primary motive of government is to deliver public services transparently, effectively and efficiently. Civil service is one of the most important mechanisms for public service delivery. The primary objective of this research paper is to explore current ICT status and use of ICT in service delivery mechanism by government organization to its People. The researchers have applied survey research to collect primary data from employees of government organizations whose primary role is to deliver public service and adopted quantitative research technique. This paper concludes that use of ICT for public service delivery can be more effective through integration, linkage and inter-operability among government organizations, departments and business entities. And regular programme for capacity development of service providers towards new ICT tools and systems is essential.*

**Keywords**— *ICT, Civil Service, Service Delivery, E-Governance, e-Services.*

## I. INTRODUCTION

Information and Communication Technology (ICT) refers to technologies that provide access to information. It is primarily concerned with the storage, retrieval, manipulation and transmission of digital data. It plays vital role to daily life of individuals, institutes, offices and government so as to achieve its goal with minimal inputs like money, human resources, etc [1]. Information and Communication processing technologies are developing faster than ever before and these aid the process of development and good governance [2]. The capacity of internet and web technology has changed traditional paper/manual driven organization to information driven internet enabled digital organization. In digital organization, most of the things are electronic, uses digital technologies and work on database, knowledge bases, directories and document repositories [10].

ICT enables public services higher quality, more efficient, more individualized service to the citizens [3]. Public sector organizations are more focus towards digitalizing their services to their customers/citizens through the internet so that users can easily use the available services from any place and at any time without any problems [4]. Now, the people expects ICT-enabled interactions, not just with each other or with businesses, but also with public services [3]. ICT in governance and service delivery of local authorities in the developed world has resulted substantial progress. Local authorities in the developed world have embraced ICTs to serve a variety of different ends better services delivery to citizens which results in less corruption, increased transparency, greater convenience, revenue growth, and/or cost reductions [1]. In 21st century, the traditional role of the state has been changed due to the globalization, economic liberalization and the expansion of the use of the information technology. Now the role of the government is not limited only in the security of the citizens but it is expanded on the public welfare, development oriented activities, information dissemination, public awareness and researches [6].

Civil service is one of the most important government machinery to deliver the public service effectively and efficiently. It is said that 'No government is better than its Civil Service'. The trust towards the government is developed through the efficient and effective public service. The dream of good governance can only be fulfilled if there are well skilled civil servants with positive attitude towards the public service delivery [5]. Public service has failed to get people's trust in present situation because the productivity of our public service is very low and quality of service is below the standard. This is not only that our civil servants are less competent but also because that civil servant has very low opportunity to training and the working procedure in civil service is too much traditional. Use of modern technology in public service delivery is lacking because of the low skill in civil servants. Hence, government has put high priority to develop the competent civil service through adequate training to civil servants and many development partners have provided the opportunity of training and study in abroad to enhance the human capacity in civil service in recent days [6].

Civil service is the policy implementing an important permanent mechanism of the state. Effectiveness of the state is mostly depends on the strength and the capability of its civil service. Political executive changed time to time, but civil servants remain in their posts for the fixed and competitively long period of time. So, they are called permanent government. In democratic political system civil service is in the role of main adviser and the impotent supporter of the government. Civil servants support government to formulate the policies and to implement them with their expertise. In totality, civil service is in the key position of service delivery, supporting the government for the decision making and strengthening the effectiveness of the governance. So, the success of government and the prosperity of the country mostly depend on the efficiency, transparency and accountability of the civil service[7].

Large numbers of case studies have been published by different multilateral organizations, suggesting that ICT can be used in diverse applications to accelerate information dissemination, improve efficiency of public services, increase the transparency and accountability of government administration, to reduce corruption, and facilitate citizen participation in local governance. However, there are few analytical studies or impact assessments that confirm that such benefits have been delivered in large-scale projects [8]. Nepal is in the process of implementing e-Government concept to make all government service accessible to the people through its second e-Governance Master Plan (e-GMP II). eGMP II takes a holistic view of e-Governance initiatives across the country, integrating them into a collective vision. A massive countrywide infrastructure reaching down to the remotest of villages is evolving, and large-scale digitization of records is taking place to enable easy, reliable access through the internet. The ultimate objective is to bring public services closer home to citizens, as articulated its Vision Statement [9]. It helps to reform the management of public administration, boots up government ability to reach to the downtrodden people, strengthens citizen participation and trust of government and improves quality of service, increases government efficiency and effectiveness by streamlining the process [11].

## II. OBJECTIVE

The main objective of this research paper is to explore current ICT status and use of ICT in service delivery mechanism by government organization to its public.

## III. LITERATURE REVIEW

Civil service is the important administrative segment of the state. It has its own characteristics. Impartiality and neutrality are its main characteristics. Civil service always has political neutrality. Merit system based is it's another specialty. Recruitment, Posting and promotion all are dependent on merit system. To establish civil service as a permanent government there is a provision of proper job security, retaining civil servants to the certain age. There is a proper arrangement of carrier development to attract the capable individuals of the society in it. There are also some additional arrangements in the service to motivate civil servants to their duties. Not only these, there is also a provision of pension for the livelihood of after retirement. Professionalism is the necessary condition of the civil service, which is not possible without being impartial, accountable and providing qualitative service to the people[7].

Service delivery is an essential function in relation between government bodies and citizens. It is a part of complex relation between government, society and citizens. The government as a key public service provider, citizens has a right to demand quality services fast, easy at moderate cost. The image of government depends on service delivery with quality services at affordable price to its citizens [13]. Through the proper utilization and implementation of technology and digital tools, the service delivery of local government could be more effective and challenges could be minimized [17]. Effective public service delivery is one of the key parameters to measure the goodness of governance. Therefore, government should be willing to formulate new strategies for effective public service delivery [2]. Development of information technology has provided the opportunity of sustainable and faster development of nation's education, health, agriculture, tourism, including trade and commerce. It is necessary to increase the utilization of information technology to maintain good governance by achieving effectiveness of the public service delivery and easy access of service holder. To enhance the working capacity of public as well as private sector, optimum utilization of the information technology is necessary [21].

The continuous change in technology and its impact in business and societies have shown a huge importance of information management. As time passes away, competition increases and new businesses and industries appear in the market. Those firms are considered as successful who learn how to use the new technologies [14]. With proper use of ICT, it increases efficiency,

speed, and transparency in service delivery. It also assists in generation and dissemination of knowledge [15]. ICT is a potential tool of efficient public service delivery. It offers new possibilities for communication between people and organization and increases the quality and quantity of interaction with people. It enhances the transparency and access to organization [2]. The rapid development of ICT has helped in exploring new opportunities for service delivery and income generation [16]. With the implementation of ICT-enabled public service delivery, it improves access to public services, increases efficiency, transparency and accountability of government [13].

In digital firm, business relationships with customers, suppliers and employees are digitally enabled and mediated. Core business process is accomplished through digital networks [14]. With the help of ICTs, huge amount of information can be collected, stored, processed and disseminated to public through different means and media. This information is vital and beneficial to social security scheme to become successful [5]. To face the challenge of competitiveness of open economy, utilization of information technology could be one of the strong means. In Nepal, private sector has effectively utilizing the information technology. Due to this, the performance level of the private sector has remarkably improved. However, there is a lack of effective monitoring and supervision mechanism, to make reliable to the increasing use of information technology by the private sector. Furthermore, it is also necessary to control the irregularities and to minimize the risk of possible crime. Skilled manpower in the field of information technology is available but it could not be utilized within the country[21].

The wide knowledge of global changing environment in public management is pivotal for better productivity in civil service. It can be achieved only through research and training in the field of public management in changing context. Hence, most of the governments have provided wider opportunity to civil servants for study and training domestically and globally [5]. The use of ICT and its application by the government for the provision of information and public services to the people need to be precise and globally accepted definition of e-government which highlights both the means and objectives of the e-Government concept[12].

According to Kumar & Best, e-government can be defined widely as the use of ICTs in the public sector to improve its functions and delivery of services[18]. The arrival of new information and communication technologies (ICTs) has significantly enhanced our capabilities to collect, process, and distribute information [19]. In every region of the globe - from developing countries to industrialized ones - central and local governments are putting critical information online, automating bulky processes and interacting electronically with their citizens [20]

Now-a-days, globalization, economic liberalization and expanded use of information technology have promoted the competition. Due to globalization, economic liberalization, neo application of information technology and the emerging aspiration of the service holders have created challenges in service delivery in one hand and in the other increasing workload, bureaucratic character, increasing corruption and some other irregularities are hampering the smoothness of the service delivery. There is an immense need of making information and communication technology friendly to the proper human resources planning, recruitment, selection, decision making process, change management, leadership, training and development, job appraisals management including reward system, through the administrative reform [6]. By the use of e-governance system, Government of Nepal can maintain the basic principle of good governance like transparency, accountability, responsibility, effectiveness. To maintain the easy access of service holder and to face the challenge of competitiveness of open economy, information technology is mandatory. Utilization of information technology could be one of the strong means of reform in governance. It should be able to establish and use proper Management Information System (MIS)[21].

For effective implementation of e-Government service in developing countries, it is necessary to consider the issue of cultivating and enhancing citizen trust to the system [22]. E-government is the modernization of process and function of the government using the tools of ICT so as to transform the way it serves its constituents. Citizens are seen here as “passive recipients” of digital information and services. E-government is defined as digital interactions between a government and people. E-government generally refers to the utilization of ICTs. And other web-based communication technologies to improve and develop efficiency and effectiveness of service delivery in the public sector [23].

#### **IV. RESEARCH METHODOLOGY**

The researchers have applied survey research to collect primary data from employees of government organizations whose primary role is to deliver public service and adopted quantitative research technique. The researchers have designed questionnaire that consists of information about demographic, physical facilities, ICT training, and reasons for hindering public service delivery, etc from two different groups namely technical and non-technical. The collected data have been entered into SPSS 22 and data analysis has been done. For preparing charts Microsoft Excel 2007 has also been used.

#### **V. RESULT, ANALYSIS AND DISCUSSION**

The primary data have been collected from employees of government organizations. The total number of respondents were 300 and out of them 140 (46%) are technical and 160 (54%) are non-technical background respondents and tabulated in table 1.

TABLE I. TOTAL NUMBER OF RESPONDENTS

Background	Female	Male	Missing	Total
Technical	26	108	8	140 (46%)
Non-technical	58	94	8	160 (56%)
<b>Total</b>				<b>300</b>

TABLE II. EXISTING ICT INFRASTRUCTURE OF RESPONDENTS OFFICE

Infrastructure	No of respondents having infrastructure at office
Telephone	129
Fax	115
Photocopy	123
Internet	120
Website	95
MIS	60
Alternative energy source	68

Table 2 describes existing ICT infrastructure of respondent office. In order to deliver public services to citizens ICT tools are very essential. It shows that MIS and alternative source energy is not sufficient as compare to other ICT tools like telephone, fax, photocopy, etc at respondent's office.

TABLE III. EXISTING CAPACITY OF RESPONDENTS ON SOFTWARE AND HARDWARE

Software and Hardware	No of respondents who can operate
MS Word	67
MS Excel	48
MS PowerPoint	44
MS Access	12
Tally	12
Photoshop	18
MIS	18
Fax	52
Mobile	73
Telephone	72
Others	15

Table 3 describes existing capacity of respondents on software and hardware for service delivery. It shows that capacity of existing employees should be enhanced for better service delivery.

TABLE IV. REASONS FOR HINDERING PUBLIC SERVICE DELIVERY

Reason	No of respondents
Lack of skilled technical human resource	113
Inadequate budget	102
Not changing the mentality of the staffs	99
Lack of knowledge about the e-service	103

delivery with the staffs	
Not any arrange of the training related to the e-service deliver to the staffs	88
Lack of rules and regulations related to the e-service delivery	93
Lack of infrastructures related to IT	96
Not being fully used the available IT instruments and system	84
Adopted IT system is not being user friendly	85

Table 4 describes reasons for hindering public service delivery. It shows that ICT user-friendly and ICT infrastructure needs to be improve for service delivery. Moreover, government has to arrange regular capacity building programme for all employees on e-services and delivery. Similarly, table 5 shows reasons for employees not interested to share their IT knowledge among themselves within an out of organization. It shows that most of employees like themselves to be more smarter than other employees.

TABLE V. REASONS FOR EMPLOYEES NOT INTERESTED TO SHARE IT KNOWLEDGE

Reason	No of respondents
Fear of to be smart others than him	75
Fear of that the skill can attach others to the office chief	46
Fear of losing extra income	46
Due to the mentality that why to share with other in free, which is acquired by investing himself	55
To show himself powerful than others	69
Lack of interest of learning of colleagues	74

## VI. CONCLUSION

The use of ICT for public service delivery can be more effective through integration, linkage and inter-operability mechanism among government organizations, departments and business entities. Besides, central government has to bring regular programme for capacity development of civil servant and service providers towards new ICT tools and systems is essential.

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