



**Digital Governance in Nepal: Online Service Delivery at
Bheemdatt Municipality**

By

Jagdish Joshi

MPPG 9th Batch

October 2020



South Asian Institute of Policy and Governance (SIPG)

North South University



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Thesis in Partial fulfillment for the award of

Master in Public Policy and Governance (MPPG)

October 2020



South Asian Institute of Policy and Governance (SIPG)

North South University

Dedication

Grandfather: Late Jiwanand Joshi

&

My Family Members

Statement of Authentication

I do hereby declare the novelty and authenticity of the thesis "**Digital Governance in Nepal: Online Service Delivered at Bheemdatt Municipality**" submitted to the South Asian Institute of Policy and Governance Program at North South University, Dhaka, Bangladesh. To the best of my knowledge and belief, no part of it, in any form, except duly acknowledged in the text, has been submitted to any other university or institute for any degree. Views and expressions of the thesis bear the responsibility of mine with the exclusion of the department and university for any errors and omission to it.

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Jagdish Joshi

ID 1929001085

Acknowledgment

This thesis is my pride in providing life through the word of my research. It's a moment of glory to me because I have been through a very challenging road while writing this thesis. As my fourth-semester starts, the global pandemic of COVID-19 brought a long-lasting impact. Every moment was challenging but was not impossible. Every moment from starting proposal to writing thesis is like night mare for me, depending on mobile data, nationwide lockdown, problem in my personal health, I have almost lost my hope but the moment my supervisors were like heavenly god for me who guide me and glide me to reach this moment.

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Abstract

This thesis studies the role of "Digital Governance" including few other determinant of digital governance for service delivery, in Bheemdatt Municipality. The research find that the public who are IT literate and have access to devices for taking services limits their visit to offices, low cost of service, less suffering in receiving the services. Mainly municipality is nearest local government and people can visit office frequently to receive the service which create problem in satisfaction level of citizen. The study tries to understand the factors affect the effectiveness of service delivery by enriching the client satisfaction. This paper starts with background and context, research questions, explains methodology used, review of existing literature, develop analytical framework, country context and municipal background, data presentation and analysis and finally conclusion is drawn. The study uses both quantitative and qualitative approaches for data collection.

This research explains the essential parts for providing effective service delivery with guideline of the analytical framework that identified three independent variables: E-governance Readiness, Client Readiness, Demographic characteristics. To analyze the accumulated data quantitative analysis has been performed. The descriptive statistics, cross tabulation of data, Pearson's correlation and regression analysis was done through SPSS. The findings were further triangulated by qualitative finding also.

The paper disclosed that among the three independent variables E-Governance readiness, Client Readiness and Demographic characters have significant statistical relationship on service delivery. There is positive relationship among E-governance readiness effective service delivery. The higher level of readiness the service delivery is effective. As a result public sector are more responsible to the citizens.

The most realistic finding is that clients of having higher level of readiness backed by proper knowledge and capacity in handling ICT finds the service delivery is effective. This fact support the concept client awareness act as booster in getting effective service delivery. Without client readiness it is less likely to receive effective service.

Age shows to have positive relationship with effectiveness of service delivery. Research reflects that young aged people find effective service delivery than aged citizens. The possible support to the relationship might be the access and their capability to utilize the ICT.

The research concludes by establishing bond between independent and dependent variables, however, the research was limited by small sample size (n=70). Whereas, 12 Key informant interview has been taken. Further, it explain the role of various variable association to assure effective service delivery.

Key Words:

Digital governance, e-governance, service delivery, client readiness, Effective service delivery.

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List of Abbreviations

ASPA	American Society of Public Administration
EGDI	E-Government Development Index
EPI	E-Participation Index
IBM	International Business Machine
ICT	Information Communication & Technology
I.T.	Information Technology
NCC	National Computer Center
OECD	Organization for Economic Cooperation and Development
U.N.	United Nation
UNESCO	The United Nations Educational, Scientific and Cultural Organization

CHAPTER-1

INTRODUCTION

"A transparent smart e-governance with seamless access, secure and authentic flow of information crossing the inter-departmental barrier and providing a fair and unbiased service to the citizen" (Kalam, 2003)

Dr. APJ Abdul Kalam

1.1 Background of the Study:

"Digital" is omnipresent. The term "Digital" stands for an electronic form, electronic tool. Digital technologies have rapidly expanded in all spheres, it is almost essential to all the existing sectors from public to private. Digital governance refers to the use of Information Communication Technologies (ICT) to deliver service provided by the government sector to its public. Because of its diligence and versatility the tool is able and capable to do enormous task as a result it is empowering the public to have seamless access (Sigdel and Shakya, 2007). Digital governance has the ability to govern with crystal clear transparency, accountability and low cost of service (Fountain, 2014). Digital governance is also called e-governance (Sigdel and Shakya, 2007; Jamil and Dhakal, 2013; Fountain, 2014). E-governance is capable of deliver the service in an transparent, accountable and government business operations (Misuraca and Viscusi, 2014). Digital governance provide service much more nearer to their palms can have access with single touch and click.

1.2 Introduction to Governance

The origin of term governance is from ancient Greek word *Kebernon*, which means to steer. The civilization of human being and formation of nation and state has evolved the concept of "governance". The World Bank has defined governance as *"governance consist of the traditions and institutions by which authority in a country is exercised. This includes the process by which governments are selected, monitored and replaced; the capacity of the government to effectively formulate and implement sound policies; and the respect of citizens and the state for the institution that govern economic and social*

interaction among them" (World Bank, no date). Kofi Annan seventh Secretary-General of United Nation (U.N.) (1997-2006) defines "Good Governance is perhaps the single most important factor in eradicating poverty and promoting development." Governance become catchy term and used in different types of governance namely global governance, corporate governance, IT governance, participatory governance and so on- which are subset of good governance.

Information and Communication Technology (ICT) has been one of the different means to provide good governance at public doors. Good governance is a path of prosperity, fundamental rights, most importantly free, fair and transparent democratic practices. This is the reason governance is taken as bridge to connect public and government.

The World Wide governance Indicators (WGI) are produced by *Daniel Kaufmann and Aart Kraay* are *Voice and Accountability, Political Stability and absence of violence, Regulatory quality, government effectiveness, rule of law control of corruption* (World Bank, no date). In line with this United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) has presented 8 major characteristic. They are "participatory, consensus oriented, accountable, transparent, responsive, effective and efficient, equitable and inclusive and follows the rule of law" (*United Nations Economic and Social Commission for Asia and the Pacific*, no date).

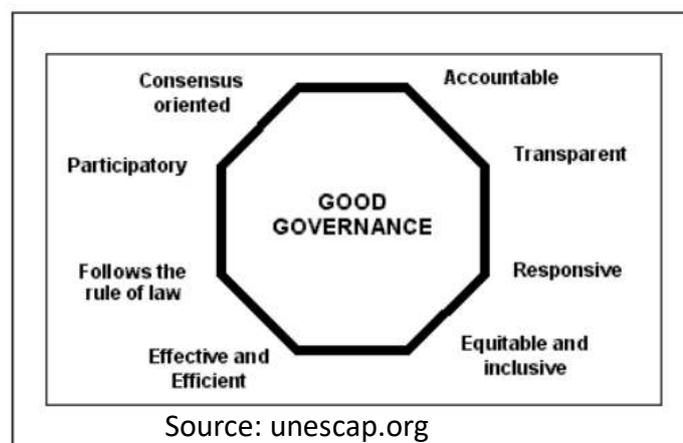


Figure 1.1 Characteristics of Good Governance

All these characteristics ensure the effectiveness of service delivery by making administration. Good governance is a concept of making society utopian, an ideal which is easy to move closer but difficult to achieve totally.

Different technologies are invented from steam engine to rocket, landline to wireless, all these tools and technologies proved best means to achieve efficiency and effectiveness in our daily schedule. Information and Communication Technologies (ICTs) and its proper use for collection, storage, processing of information, generation of knowledge and its use to improve.

1.3 Definitions

1.3.1 Digital Government

Digital government has been common word since early 1990s. It refers to the broad topic of the governance in the information age with its best for service delivery, public management and administration, policymaking, analytical and regulatory behavior and process in the public sector with the use of IT (Fountain, 2014). The development of Information Communication and Technology (ICT) and its application gave birth to the digital era.

Digital government began in the early 1990s during the Clinton Administration with the main goal of reinventing government and economic growth. Similarly most of the developed countries attracted towards digitalization and joined the digital movement. With the progress in movement and development of ICT Obama Administration came up with wider horizon of digital government i.e. "open government" (Fountain, 2014)

In last 30 years, digital government has changed the mode of citizenship, bureaucracy, politics and national and regional interdependence for more connected government. The further continuation of digital government will lead much more ICT knowledge based society.

Digital Government has become important medium in changing and channelizing public sector in most part of the world (Singh and Sahu, 2018), With the key objective of one-stop government portal (Dias and Rafael, 2007). The one door

policy will help to have access to all the sites to gather information and receive services.

1.3.2 Digital Governance

Generally, Digital-Governance is defined as the use of ICT in different tiers of government for delivering services to the citizens in a speedy, convenient(Falk, Römmele and Silverman, 2016), efficient and transparent manner. Digital governance also known as digitally encoded governance (Gregg and Larson, 2008), further they identify four basic characteristics of digital governance:

- Center of power in information nodes.
- Exclusive information sharing.
- Interactive
- Organizational Transformation

The term "digital government," was adopted by the National Science Foundation (NSF) (1999) given emphasis on the use of information and technology for improving public service (Shekhavat, 2013). It is a form of governance where information are widely shared, no center of power rely on particular chair, which is more interactive and help to transform in digital management with the use of ICT to deliver services is known as digital governance(Sharma, 2004, 2020; Roy, 2005, 2005; Patil *et al.*, 2008; Shekhavat, 2013; Fountain, 2014).

E-Governance is useful to the citizens, mainly in developing countries(Jaya, 2016). Benefits of e-governance is with following features fast service delivery, transparency in decision making, accountability, online services, administrative efficiency and reduction of transaction cost(Backus, 2001; Sharma, 2004, 2020; Roy, 2005; Fountain, 2014; World Bank, 2015; Falk, Römmele and Silverman, 2016; UNITED NATIONS, 2018)

Further chapter covers with statement of the problem, rationale & significance, etc. Relying on these introductory elements the second chapter is developed which will elaborate in length on the supportive literatures and analytical framework.

1.4 World E-Government Ranking and Nepal

The United Nations E-Government Survey (UNES) has been publishing report since 2003. UN measures E-readiness index from 0 to 1, which is comprised of Web measure index. E-government Index is helpful to measure the status of country's utilization. Each year member country of United Nations are taken into the survey. E-Government Development Index (EGDI) incorporates the website development pattern, infrastructure and educational level. EGDI is composed of online services, telecommunication connectivity and human capacity.

Table 1: EGDI rank of Nepal

EGDI Rank	2020	2018	2016	2014	2012	2010	2008	2005
Nepal	132	117	135	165	164	153	156	126

Source: U.N., E-Government survey report (2005-2020)

Nepal's EGDI ranks of last 15 year is fluctuating, and it's not stable the year 2020 Nepal is in 132nd position among 193 countries. Whereas global leader is Denmark, regional leader Republic of Korea 2nd, and Sub-Regional leader is Sri-Lanka with 85th position

E-Participation Index (EPI) is gauge and improve the citizen access to information and public services and ensure participation of public in decision making. "The EPI is derived as a supplementary index to the UN E-Government Survey. It extends dimension on the use of online services to facilitate provision of information by governments to citizens, interaction with stakeholders, and engagement in decision-making process".

Table 1.1 EPART rank of Nepal

EPART Rank	2020	2018	2016	2014	2012	2010
Nepal	137	55	89	110	134	127

Source: U.N., E-Government survey report (2010-2020)

1.5 Statement of the problem

Digital governance is the need of the modern world. It's challenging to race up with other parts of the world without digitalization. From the federal government to local government, digital governance becomes broader in demand. For a reason, each year, millions of people are getting connected with digital movement. But the developing countries and least developed countries like Nepal, there are lots of challenges to ensure digital progress and secure digital services in different parts being geographically tough (Adhikari, 2007).

At present, context state political and administrative system has been restructured, from the centralized and unitary system, we stepped towards federal structure (Government of Nepal, 2015). Thus still we are in the phase of implementation of the Constitution, which challenges the Nepalese quest for digital governance at a grassroots level like the local level e.g., municipalities. Because there is still a problem that existed with employee's adjustment dissatisfaction, a large number of seats are vacant, which still needs to be filled.

Nepal is the least developed country. This title reflects the economic, political, and other essential factors to grow the digital sphere. This results in limitedness in resources, and few people have access. U.N. e-government survey shows Nepal in middle EGD I group. Means a lot need to be done to ensure effective service delivery huge investment in infrastructure, and manpower will be point to be noted. As quoted in (Gyawali, 2018) comparative study of Kathmandu and Lalitpur also stated the essence of much more improvement in the sector.

To shift from under developed to developing stage, improvement and advancement of system and technology essence of leadership is must. But in Nepalese context political instability, poor leadership has been barrier to the development (Shakya, 2018). From the study of Shakya, (2018) Nepal need to do a lot of progress in the sector of ICT to ensure digital governance for providing effective service delivery but mean while we have to climb lots ups and downs because of existing system.

As Nepal is least developed country, poor ICT infrastructure, low EGDI and beyond this also. Against these backdrop Nepal is in pressure to ensure Digital governance in different tiers of administrative structure.

Although there have been many empirical research works around the globe on digital governance and effective service delivery, similar work on Nepal have been highly limited. Thus this research tries make an attempt to find the digital governance at local level to ensure effective service delivery.

Also implementation of digitalization on local level is existed but no study is done to prove either digital governance can ensure effective service delivery. It is however unexamined the relation between digitalization and service delivery.

1.6 Rationale and Significance of the Study

It is true that a number of research works have been executed focusing on different issues of Digital governance. But among them very few are studied on local government perspective, even in Nepalese context research work are in single digit. Therefore, it is observed that a very little attention has been given to digital governance in relation to effectiveness of service delivery. This study assess the status of digital governance and it's impact on service delivery. Moreover, this study tries fill in the gap among the existing literature on digital governance in local perspective.

This study is helpful for understanding the impact of digital governance to ensure effective service delivery. There are few number of research done from local perspective, thus this study have adding value from local perspective. Which is helpful in predicting the future of digital governance in local governments.

1.7 Research Objective

The point of departure of the study is effective service delivery to the local level, the dynamics of digitization leading to effectiveness. Thus, the central objective of the study is to unbundle relation between digitization and effective service delivery of local level.

- To assess the effectiveness of online services provided by Municipality.
- To identify the factors that might impede Digital governance.

1.8 Research Question

This research has focused on two questions mentioned below.

1. What is the current stage of digital services in Bheemdatt Municipality?
2. Do existing services lead to effective service to the public of Bheemdatt?

1.9 Hypothesis

H1 - The higher level of E-government governance capacity building, the better the service delivery.

H2 - The more client readiness for receiving better services would lead to better E-governance effectiveness.

H3 -The effective digital governance can be ensured by the online capacity building of the Municipality along with the client's readiness to receive online services.

H4 . The young age people perceive is better service than aged people.

1.10 Organization of Chapters:

The present study is segregated into the following chapters:-

Chapter 1: Introduction

This part of the dissertation comprises basic introductory elements of the whole thesis such as the background of the study, statement of the problem, rationale and significance scope and followed by organization of chapters.

Chapter 2:

Provides a review of literature related to Digital Governance. Through a mapping of the concept from different sphere different organizational and academicians. Further Analytical framework provides direction and leads to knowledge of explanation

Chapter 3:

This explains the basic county background in terms of history, structure, functions. Moreover, the Municipal background will be elaborated.

Chapter 4:

This chapter is focused on research design and methodology used in this study. It discusses the unit of analysis, sample population and overall data collection tools and techniques for carrying this research.

Chapter 5:

Contains data presentation, analysis, and interpretation using different techniques of SPSS. This chapter deals with the accumulated data for shaping a systematic output of the whole thesis.

Chapter 6:

Concludes the research work revisiting the research objectives, research questions, analytical framework used in this thesis.

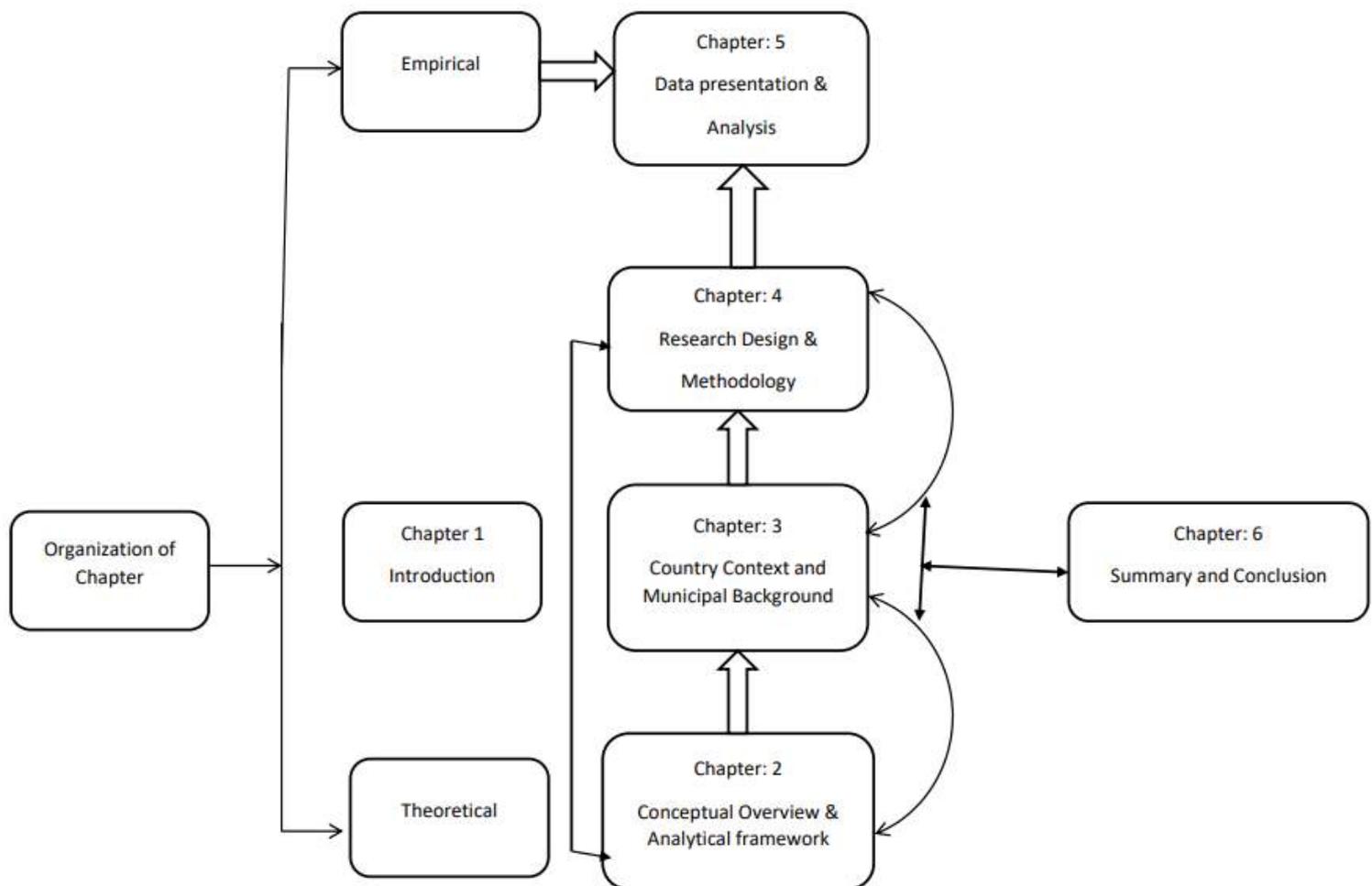


Figure 1.2: Organization of the thesis

Conclusion

This chapter focused on the introductory aspects of the study of digital governance in Nepal with reference to Bheemdatt Municipality. It covered the background of the study with literature on digital governance.

Chapter Two

Conceptual Overview & Analytical Framework

"Understanding is a three-edged sword. Your side, my side, and the truth."

J. Michael Straczynski

2.0 Introduction

In previous chapter, basic idea has been developed for the study of digital governance in Nepal with reference to the Bheemdatt Municipality. This chapter tries to deal with a conceptual overview and reviewing the existing literature of global and national context in short. The goal of the chapter is to give broader ideas on different aspect of digital governance and to develop analytical framework along with the operationalization of variable.

2.1 Evolution of Digital governance

The scholars, academics and practitioners of public administration put stress on traditional framework of public administration, sought for suitable paradigm for effective and efficient administration. The shift in idea changes paradigms of public administration. The evolution of digital governance follows the paradigm shift of public administration in the global ICT revolution.

Initially United States of America used computer for census calculation which result efficient result in comparison to traditional approach. Later on, with the invention of advanced machine its application leads global ICT revolution.

The shift from Weberian model to New Public Governance has created enormous pressure to the public sector in order to change their orthodox service delivery model and accepting modern tools and techniques to ensure effective service delivery. With the increase in complexity of government activities, force public officials to adopt new models of governance.

The notion of governance was brand for World bank and other development agencies. Fukuyama was cited in (Jamil, Aminuzzaman and Haque, 2015) defined governance as government ability to make and enforce rules, and to deliver services, regardless government is democratic or not.

The concept of governance is also being used as good governance, Digital governance is consider as important paradigm to ensure effective governance. The notion of governance with ICT got wide spread acceptance. The reason was clarified by (Patil *et al.*, 2008) as "digital governance is to empower public for information access and analysis to enable transparency, accuracy, and efficiency for social goods". (Coleman, 2008) supported the argument by saying it as interactive, which bring people closer. (Bank, no date)Come closer to define in by highlighting characteristics with aim to improve service delivery. While ICT has been driving force to ensure improvement of service delivery. Hence digital governance is considered as vital tool to realize effective service delivery by ensuring good governance

2.2 Concept of Digital Government

Before the application of the ICT, the public office was the center of the connection between a public or business and a government office. Presently service center are becoming closer to the public, and technological advancement has played vital role in this transformation. The role of internet cannot be undermined because it has contributed in reinventing the government (Sharma, 2004). It has helped bureaucracy to change the paradigm, from manual to digital form.

Digital-Governance is interchangeably used as E-Governance, a one-stop government, and online government. More commonly, the term is broadly defined as the use of information and communication technology by the public organization to deliver seamless, transparent, and effective service(Roy, 2005).

2.3 Literature Review

This section of the chapter deals with global, regional and Nepalese Context on digital governance. And this contextual literature review is presented below:-

2.3.1 Global and regional Context

Studies in different countries have identified different challenges and opportunities of digitalization in the public administration.

A study carried out by (Schuppan, 2009) in sub-Saharan Africa as a context of developing countries found that digital governance in order to ensure effective service delivery is dependent upon institutional, cultural, and wider administrative context and these things should be kept into account. *Schuppan* explore that there should be minimum preconditions exist i.e. infrastructure and I.T. literate population to ensure e-governance.

Sharma, et al 2012 found that e-governance plays a vital role sharing information government to government (G2G), government to citizen (G2C) and government to business (G2B). Whereas they clustered government activities widely in four clusters: e-service, e-management, e-democracy and e-commerce. The content of digital governance and effective service delivery came into discourse in South Asian countries where the status of Nepal seems poor and stood in second last, but keeping it as base year current document published by U.N. e-government survey report Nepal has done tremendous progress in the sector of digital governance. E- Participation index (EPI) in second position after India in South Asia. Similarly e-government development index (EGDI) with 117th rank in global order (UNITED NATIONS, 2018).

(Sumanjeet, n.d.2006) highlights Indian context where as he is also clearly confined with the efficiency, transparency, convenience and accessibility are the major results of digital governance. E- Governance as step towards SMART (Simple, Moral, Accountable, Responsive and Transparent) link between citizen and government. E- Governance has lots of benefit with as in case of India author highlighted leadership, employment generation, access to information, resource management as achievement after undergoing through the process of digitalization.

Number of author highlighted on the models of e-government for effective governance. Karen Layne and Jungwoo Lee model, U.N. model and ASPA model (Sumanjeet, no date; Kabir and Baniamin, 2011; Rahman and Ahsan Rajon, 2011). These three models similar

to each other. The stages suggested here in the different models are showing pathway to achieve effective service delivery via interaction among different agency by sharing the information.

2.3.2 Nepalese Context:

There is short history of e-governance in Nepal. The main objective of e-governance in Nepal is to support good governance and effective service delivery (Paudel, 2014, p. 233). Nepal continuously made effort in enhancing capacity of public organization with the help of digitization (Jamil and Dhakal, 2013). If we look through E-government survey report of U.N. published in 2018 some signs of development in the sector of digital governance can bring hope to the future of digitalization.

(Giri, no date), 2019 highlights e-government development in developing countries and Nepalese Context. ICT policy and legal issues are highlighted thus to consider his work in this review was the linkage with governance. Digital governance ensure effective service delivery to the public but countries like Nepal still facing challenges during service delivery. Digitalization facilitates interaction in different modules: government to government (G2G), government and citizen (G2C) and government to business (G2B) (Giri, no date; Kabir and Baniamin, 2011; Sharma, Bao and Qian, 2012; Falk, Römmele and Silverman, 2016). These modules can are in development phase of Nepalese digital era.

E-governance as an effective means of governance in Nepal, was highlighted with the first I.T. policy in year 2000, but some historical landmark were highlighted such as establishment of National Computer center (NCC) IN 1974 by in different scholarly article. E- governance in terms of its capability for bringing about a major shift in the way public administration functions.

Giri (2019) findings concluded by recommending strongly that comprehensive regulatory framework and good coordination between regulation implementation agencies of government and public acceptance make it success thus digitalization should be user friendly with updated policy.

2.4 Maturity model of E-Governance

A maturity model is set of different stages that determine the maturity of the digital government web portal. The main benefit of maturity model is to rank status and stage of digital government readiness.

Numbers of model of Digital- governance (e-governance). For the convenience of the study U.N. and ASPA five stage Digital governance maturity will be taken

U.N. and ASPA (2002) E-Governance Maturity model

Emerging: First stage of maturity model. An official government online presence is established in this stage.

Enhanced: Second stage, government sites increases; more dynamic information

Interactive: Third stage, User can download forms, e-mail officials and interact through web.

Transactional: Can make online payment for the required service.

Seamless: Full integration of e- services across administrative boundaries.

From this model, the independent variable will be *Digital governance Readiness* where *Online Service Delivery Status* is considered as key indicator.

(UNITED NATIONS, 2018) measures EGDI by three Indicator: Human Capital Index, Online Service Delivery Status, and Telecommunication Infrastructure Index. For the convenience of the study online service delivery status as indicator.

The hypothesis is '**the higher the level of digital governance readiness, the better the service delivery is**'.

2.5 Client Readiness

Effectiveness of Digital Governance depends not only on the existing high tech infrastructure, but the user should be ready to receive the services (Rose, 2005). Thus supply and demand side readiness empower digital governance. The capacity to own

digital devices, access to internet and ICT literacy is must for clientele readiness. All the issues signs for clientele readiness.

The hypothesis is '**the more the Client Readiness, the better the service delivery is**'

2.6 Demographic Character

Demographic factors like gender, education, age are major issues varies. AS old age people are less use-to with digitalization ultimately these factor have serious impact on effective service delivery. The hypothesis is '**the young age people perceive is better service than aged people**'.

2.7 Service Delivery

Dozens of literatures can be found on service delivery. The service delivery refers to effectiveness of service delivery. Among those **SERVQUAL** model be discussed. The effectiveness of *service delivery* will be dependent variable.

SERVQUAL model was developed by (Parasuraman, Zeithaml and Berry, 1985). This model is most often used approach for measuring service quality which is essential to identify effectiveness of service delivery. Parasuraman et al. has developed five generic factors.

Responsiveness: Fast service delivery and ability to deal effectively with complains and feedback. Responsiveness will be measured by time saving and effective feedback mechanism. Time saving will be measured by fewer visit, less waiting time, reduced application processing time and faster service delivery.

Reliability: Ability to perform the promised service dependably and accurately. Accuracy can be measured by the extent of errors/ mistake in service

Assurance: Knowledge and courtesy of employees and their ability to inspire trust and confidence. Assurance can be measured in terms of credibility of service. This can be ensured with proper disclosure of information.

Empathy: Caring and individualized attention that the organization provides to its customer

Tangibles; Physical facilities, equipment and appearance of personnel.

Among the five indicators of service quality responsiveness, reliability, assurance and empathy will be taken a indicator to identify effectiveness of service delivery. This model doesn't talk about cost effectiveness, which is an effective parameter of service delivery.

In January 2005, the European commission (E.C.) developed launched the E-Government Economics project (e-GEP). The e-GEP model provide foundation to measure cost effectiveness of service delivery. This model advocate's cost effectiveness is an important part of effective service. The theories and concept of different paradigm of public administration suggests when service provider provide the service with factor affecting non- service cost ensures effectiveness of service delivery.

After all, different studies shows satisfaction as a baseline to trace the effectiveness of service delivery. The excellence of service delivery is associated with satisfaction, which ultimately define effectiveness of service delivery with the level of satisfaction (Mihelis *et al.*, 2001). For the purpose of the study the researcher will try to measure the satisfaction level and its relation with service delivery. (de Ruyter, Bloemer and Peeters, 1997) highlights the service quality and service satisfaction, though exact nature of customer is hard to define and relationship is unclear. However satisfaction is complex phenomenon, the level of satisfaction varies with same service. For the purpose of this research satisfaction will be taken as parameter of effectiveness of service delivery.

2.7 Analytical Framework

From the different literatures and models made in above sections, the following analytical framework will used for the thesis.

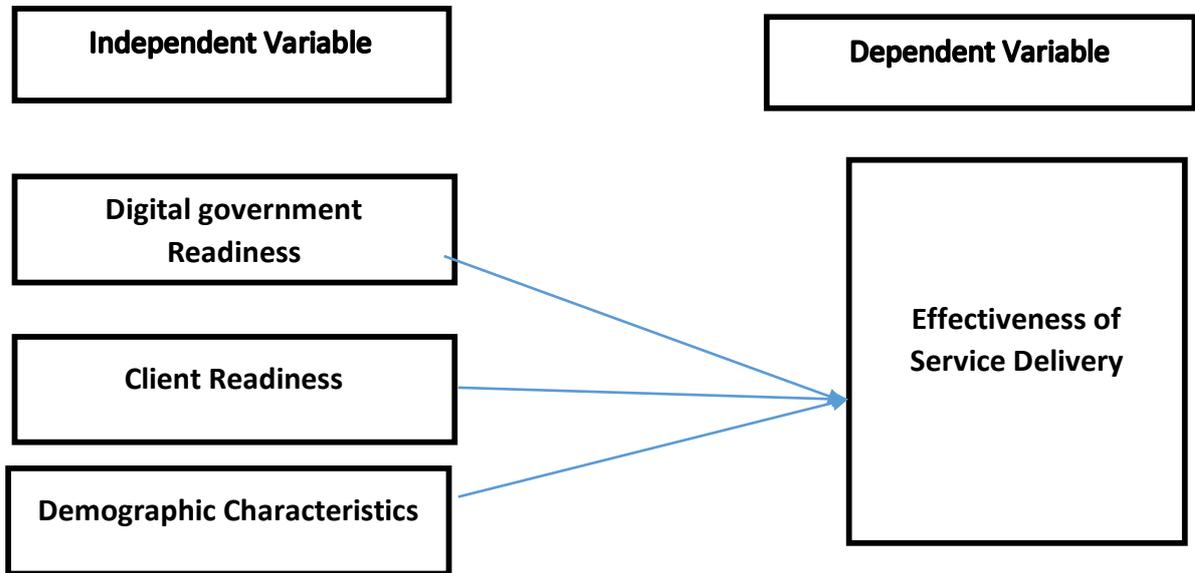


Figure 2.1 : Analytical Framework

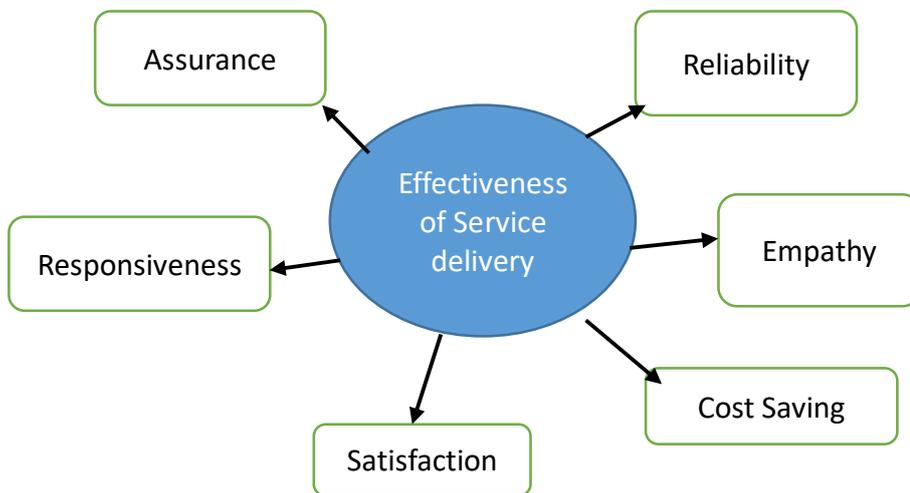


Fig.2.2 Framework of dependent variable

2.7.1 Operationalization of Variable of the study

S.N	Dependent Variable	Operational Definition	Indicators of the Variable	Sources of Data	Collection method
1	Effectiveness of Service Delivery	Promptness of service (No of visit, waiting time, delivery period, processing time)	Responsiveness	Municipality Service seeker	Questionnaire survey
		Feedback Mechanism			
		Accuracy of service, Consistency and dependability of service(easy tracking of service progress)	Reliability		
		Access to required information	Assurance		
		Easy access and communication; less sufferings	Empathy		
		Travel cost, extra payment, cost of operation	Cost Saving		
Perceived satisfaction with service	Satisfaction				

Table 3: Operationalization of the variables of the study

S.N	Independent Variable	Operational Definition	Indicators of Variable	Sources of data	Collection Method
1.	Digital governance Readiness	Information and downloadable forms, Interaction, Electronic authentication of citizen identity, Financial transaction, Interconnection to other departments	Online service delivery status	Municipal Webpage	Qualitative
2.	Client Readiness	Knowledge of ICT Ownership of Mobile, Computer / Smartphone Internet connection Knowledge of file download.	Client Readiness	Service seeker	Quantitative
3.	Demographic Characteristics	Age, Gender, Education	Age, Gender & Education	Service seeker	Quantitative

Table 3: Operationalization of the variables of the study

2.8 Conclusion

This chapter discuss on different views on e-governance and service delivery. It has also touched the literatures from both national and global context. Furthermore, this chapter has given importance on analytical framework. For giving quick and specific meaning of

the variable. Moreover, the subsequent chapter will be dealing with the country context, Municipal background on digital governance.

Chapter- Three

Country Context and Municipal Background

3.0 Introduction

The idea about country and study areas must be kept on light to understand the present scenario. To have an essential comprehension of the country context, this chapter shows the profile of Nepal in terms of its geography, history, economy, and politics. Further, this chapter elaborates on the depth of the Nepalese scenario with the status of digital governance from the beginning till date. Moreover, it discusses the digital government initiatives taken from the federal level to the local level.

3.1 Nepal at a Glance

Nepal is a landlocked with a total area of 147,516 km. Southern belt along with east and west have a shared border with India and Northern belt shares with Tibet- Autonomous region of China. The country is also called "Sandwich" between two giant nations. Nepal, despite its size it is rich in natural beauty, glorious history, culture, climate, and lifestyle. The total population of Nepal is 26,494,504 according to the census 2011. Within this number we can find various groups, religion sharing their identity to enrich Nepalese as a common identity.

Geographically, Nepal is divided in three different region namely Himalayan region, Hilly region and Terai region. The country is also called the country of Himalayas because world major mountains (8 of the world tallest) are situated. The water resources had provides numerous opportunity in tourism, irrigation, and hydro-electricity from plethora of rivers. Tourism industry is growing, because of the boon of the nature.

Despite the plethora of her natural beauty, Nepal has not been able to flap its wings in open air like other countries. Nepal has not been challenged by long political uncertainty and instability, trade disruption, and natural disasters (earthquake in 2015, yearly flood in Terai region and landslide each year). Political instability has frequently change in

government more than 20 times since the introduction democracy to Federal Republic Nepal(Ministry of communication and Information Technology, 2019) .

The challenge have been added globally with the eruption of coronavirus disease (COVID-19). The diseases was first identified in December of 2019 in Wuhan, China(Worldometer, 2020). The disease spread as wildfire and created global health crisis. The World Health Organization declared it a pandemic on 11 March 2020 (Sharma, 2020). Almost all countries are affected by COVID-19, it has affected the 213 countries and territories. USA, UK, France, Italy, Spain and India hit hard with rise in death tolls and COVID-19 patient. This disease has compelled to think mode of governance. Nepal closed its border and imposed stay at home lock down to reduce the spread of disease, the technique was used by almost all countries.

As it is declared that COVID-19 can transmit from human to human in geometric progression, Nepal has not remained unaffected by the pandemic. The coronavirus infected cases are 36,485 as of August 29, 2020 and 195 death reported so far, "the lockdown has affected all spheres of life including government services" (Sharma, 2020).

3.2 Application of ICT in Nepal: A Timeline

A second generation IBM 1401 was brought in 1972's for the purpose of census . Two year later in 1974 a center for Electronic Data Processing was changed into National Computer center (NCC), was established for the purpose of data processing and computer training. Since then private company also starts to groom up to contribute the ongoing movement. Within the short period of time Nepal has done tremendous progress to have access to mobile phone and internet penetration with 63% of the total population. As the number of both cellphone handler and internet penetration has been increased Nepal has formed e-government master-plan, Digital Nepal framework to improve the existing condition (Ministry of communication and Information Technology, 2019).

3.3 Institutional Arrangement

After adopting e-government policy for the first time in 2000, the government made necessary arrangement for the regulation of policy.

The National Science and Technology Council and the Royal Nepal Academy of Science and Technology (RoNASt) were established, and both of them were merged in 1996 and formed Ministry of Science and Technology to make coordination and achieve national goal. Ministry of Information and Communication have responsibility for formulating policy, acts and regulation relating to telecommunication.

3.4 E-Government Implementation in Nepal

We are in the process of prosperous Nepal, Different countries are helping who have IT expertise, the recent regional leader of E-Government survey 2020 Republic Korea has been helping to promote digital governance of Nepal with collaborative effort with Korea IT Industry Promotion Agency (KIPA), has prepared E-Government Master plan for Nepal which hits landmark for the development of Digital governance process of Nepal (Ministry of communication and Information Technology, 2019).

Nepal has its own National Portal it work as (one-stop-shop) for receiving all government e- Services, among Government to Citizen (G2C), Government to business(G2B), and government to employees (G2E). Moreover some other organization are providing E-Government Services; Inland Revenue Department, Office of Company Registrar, Department of Foreign Employment, Department of Passport, Financial Controller General Office, Ministry federal Affairs and General Administration etc. Furthermore Government of Nepal has carried carried major e-government project in different sectors; e-Customs, Vehicle Registration, National ID, e-Passport, e-Visa. Keeping above mentioned initiatives in mind, we can say that Nepal is in thrust of Digital Governance (Ministry of communication and Information Technology, 2019).

3.3 Municipal Background:

Bhimdatta Municipality is popularly known as Mahendranagar, it is the oldest municipality of Kanchanpur District. Total area of this municipality is 171.8 square, Kilometer and its 740 K.M faraway from capital city of Nepal.The municipality shares border with Bedkot Municipality in East, Dadeldhura in North, India in South-West. The municipality is divided in 19 ward and in terms of infrastructure this municipality is developed in comparison with other Municipality of the district. After the restructuring of the state, Bheemdatt Municipality is part of Far-western province(Bureau of statistics, 2017).

3.3.1 Organization Structure

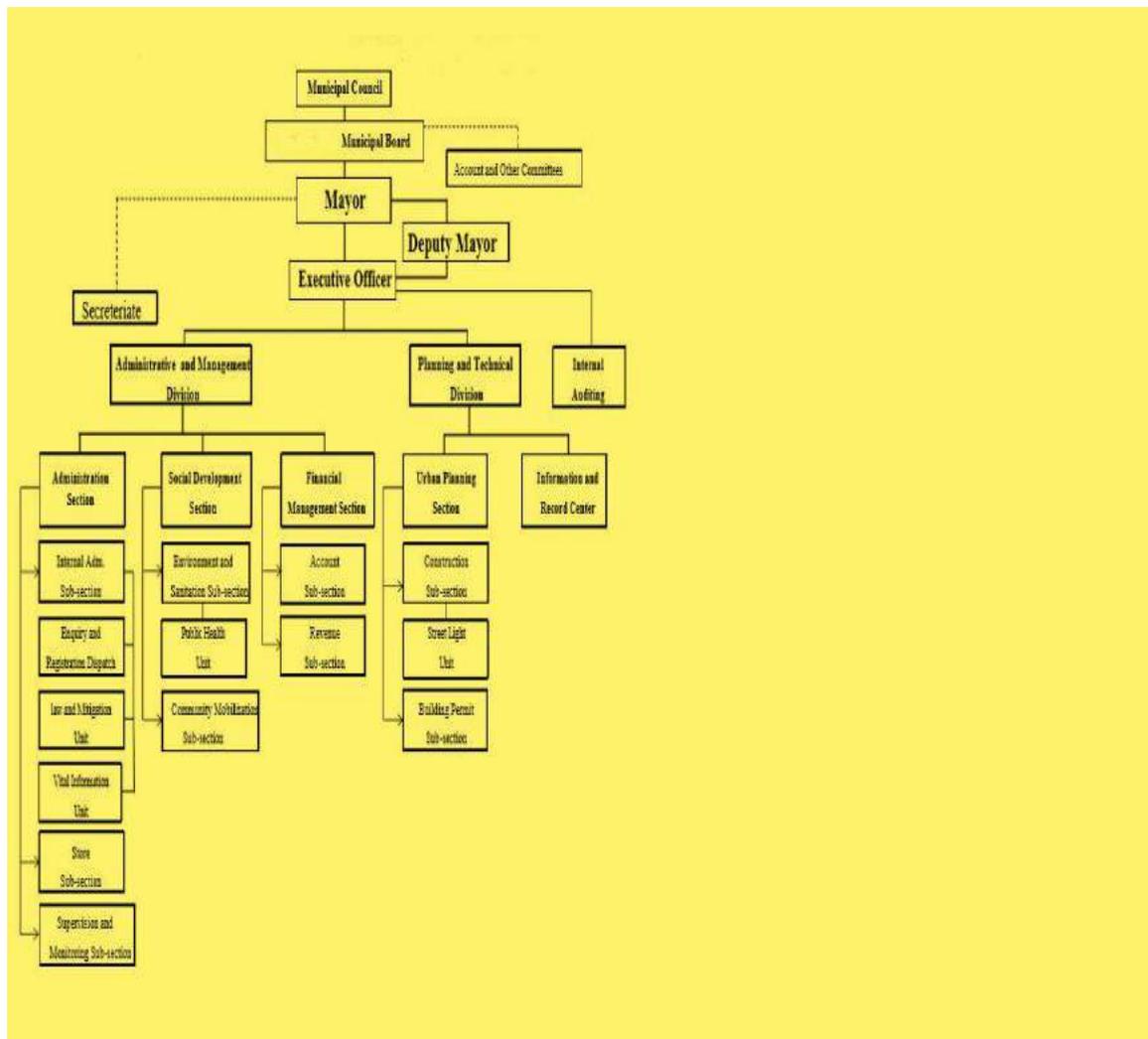


Fig3.1: Organization structure of Bheemdatta Municipality

3.3.2 Digital Governance in Bheemdatta

Bheemdatta Municipality committed to provide e-government services and providing various types of e-government services through its webpage <https://bheemdattamun.gov.np> . The website shows all necessary information and updates in its web page. To manage digital content Bheemdatt has its own IT cell who provide 24*7 services to public of the Municipality. Keeping Impact of COVID-19 Bheemdatta starts to enhance its online services now public can request for services on respective department email.

The online services provided by municipality are provided through its webpage. Vital Registration services are available in its website. Death Certificate, Birth Certificate, Migration Certificate and so on all these services delivered on request.

Social security beneficiary can easily trace their day to collect social benefit from the municipality. The name will published by the Municipality in its webpage. Thus number of visits should not be made to take single service.

Online Job application, the vacancy announced by the municipality can be applied in its job portal. The announcement of vacancy can be easily traced and information can be gather.

Online application for municipal grants. Each year Municipality provides grants on different headings to promote the business and enrich living standard of its public. Citizen can submit all necessary documents in municipality email address.

3.4 Conclusion

The chapter shed light about services delivered in digital platform. The chapter reveled that at national level digital governance readiness is higher because large numbers of projects are running to promote digital governance. However municipality is not doomed being unable to provide digital services but not in fully developed stage. Subsequent chapter will focus on research design and Methodology applied for the execution of this research.

Chapter – Four

Research Design and Methodology

4.0 Introduction

The goal of this chapter is to deliver the research design and methodology used on this research. It tries to figure out how the mixed method has been employed and how methodology used to answer the research questions developed at the beginning of this study.

According to (Aminuzzaman, 1991) research method is defined as '*the functional action strategy to carry out the research in the light of the theoretical framework and guiding research questions and/or proposed hypothesis*'. "Research design is a blueprint for conducting a study with maximum control over factors that may interfere with the validity of the findings" (Burns and Grove, 2006) . Thus, a research design is set of plan where necessary setup is made to collect and analyze the required information.

Research design in social science is categorized in three sections: qualitative, quantitative and mixed method. Broadly research design is further categorized as exploratory, descriptive and casual relationship.

Both service receiver and service provider were studied to understand the role of digital governance in service delivery. This study uses both quantitative and qualitative method. Based on analytical framework of the study the questionnaire was set and after that data collection was planned and executed.

4.1 Research Design

Since the central research question of this thesis is to find out how the digital services lead to effective service delivery to the public, mixed method is used to unbundle the research question. (J. W. Creswell, 2009) states that "research designs are types of inquiry with qualitative, quantitative and mixed method approaches that provide specific direction for

procedures in a research design." Therefore, the study designs mainly focuses on mixed approach to carry the research.

4.1.1 Quantitative method

For the study of effectiveness of digital services, one part of this research was based on quantitative method. As (J. W. Creswell, 2009; Marsh and Stoker, 2010; Kumar, Sachan and Mukherjee, 2017) has highlighted the issue of numeric description of trends, attitudes, or opinions of a population by studying a sample of that population; data has been collected using quantitative method. Moreover, (J. . Creswell, 2009) the correlation designs is used to explain the relationship between dependent and independent variable.

4.1.2 Qualitative method

Another part of the research design in this theses is the use of qualitative method for validating as well as to find out factors shaping digital services and effectiveness. Qualitative study always in search to "understand, explain and explore, discover and clarify situations, feelings, perceptions, attitudes, values, beliefs and experience of a group of people. The study designs mainly entail the selection of people from whom the information through an open frame of inquiry is explored and gathered" (Kumar Ranjit, 2019)

4.1.3 Mixed method approach

The combination of quantitative and qualitative method is known as mixed method. This approach is useful to cover balanced mode of analysis of the gathered data. Creswell (2009, p.14) argues, "Mixed methods involves combining or integration of quantitative and qualitative research data in a research study. Qualitative data tends to be open ended without predetermined responses while quantitative data usually include close ended responses such as found on questionnaires or psychological instruments".

4.2 Study area

Bheemdatta Municipality is a part of Kanchanpur district, which lies in Far-Western Province after state restructuring. Total area of the municipality is 171.8 square Kilometer. The Physical infrastructure and development of municipality is better than the other part of Municipality. It is 740 kilometers west of the capital city of Nepal.

Table4.1: Literacy Rate by Sex

Literacy rate	Percentage
Female	67.71
Male	88.13
Total	77.81

Source: CBS, 2011

Table4.2: Population by sex

Population by sex	Number
Female	53568
Male	53098
Total	106666

Source: CBS, 2011

The primary data is collected from the municipality office of Bheemdatt, Kanchanpur, Nepal. Secondary data collected through content analysis from different sources, such as websites and reports.

4.3 Unit of Analysis

The study is designed to understand effectiveness of digital service delivery from Bheemdatt Municipality. Therefore, the unit of analysis of the study is the respondents of Bheemdatta Municipality. The selection of office has been done on the basis of historical background and status of digital governance.

4.4 Data Collection Methods and Sources

Afore mentioned the research is based on mixed method, the data collection techniques lies on both quantitative and qualitative method.

4.4.1 Questionnaire Survey

Questionnaires are very useful and convenient technique for gathering valuable information from a huge range of individuals. The sample size of the survey is 52. Survey was conducted among 45 general service seeker and 7 service provider. Form with Likert-scale of 5 were created and accustomed live respondents' attitudes to a selected question or statement in regards of aid effectiveness with par to the analytical framework. The Likert scale consists of – 1) fully ineffective, 2) partly ineffective, 3) Neutral, 4) partly effective, and 5) fully effective.

4.4.2 Interview

Twelve key service providers were interviewed through open-ended question to understand the present status of digital governance as well as major issues related to service providing.

4.4.3 Secondary data analysis

Several secondary sources of data from government website, UN reports, and World Bank reports were synthesized for the wider range of coverage.

Table4.3: Data Collection Methods and Data Sources

Data Collection Method	Data Sources	No. of respondents	Area
Questionnaire Survey	Service seeker (45) Service provider (7)	52	Bheemdatt
Interview (Open ended question)	Chief Administrative Officer(1) Administrative Officer (4) I.T. Officer (3) Planning Officer (4)	12	Municipality office

4.5 Period of Data Collection

The time period for data collection was for one month from June to July, 2020. Due to some unexpected global pandemic COVID-19 has postponed for month and other schedules were also affected accordingly.

4.6 Conclusion

The chapter discussed in different sub headings about the research design and methodology used in the research. The various aspect of data collection, sources, techniques, methods were discussed in detail of the research. Next chapter will discuss about the data analysis and the findings.

Chapter Five

Data Presentation and Analysis

5.0 Introduction

This chapter focuses on the presentation of research data from different standpoint of the information based on the research methodology as discussed in previous chapter. Variable are so far concerned with the analytical framework. Therefore, the chapter focuses finding the answer of research questions and testing hypothesis. The calculation of E-Governance Readiness, demographic profile of the respondent presented first. After that descriptive statistics of dependent and independent variables are presented through frequency, maximum, minimum, mean and standard deviation to have general idea about the data collected by researcher. The correlation of both the variable are also presented and explained. Finally regression model is presented and analyzed to identify the key factor that affect service delivery. The result of quantitative data is validated by qualitative data.

With respect to chapter four, it is observed that digital governance in municipality is under development phase. Website is delivering online service but cannot move further from fourth stage (transactional) of UN/ASPA E-Governance maturity model.

5.1 E-government Readiness Analysis

Table5.1 : Calculation E- Governance Readiness (Online Service Delivery Status)

Stages	Statements Regarding Online Service Delivery	Online Service Delivery Score
		Score for municipality website
Stage - 1	Online presence is available	1.00
Stage - 2	Is your website updated?	0.89
	Are the available services published	
	Are all Acts/rules/Gazette/Circular related to this office available there?	
	Is Citizen charter available in the website?	
	Contacts no's, email ID of responsible officials available there?	
	Are procedures clearly defined?	
	Are requirements for getting service well specified	
	Are the delivery period, cost of service well specified	
	Downloadable forms and files available	
Stage - 3	Online application submission	1.00
	Providing application number against application	
	Online/SMS notification of requirement	
	Online/SMS notification of progress of service	
	Facility for citizen feedback/comments	
Stage - 4	Online financial transaction (e.g online payment through card)	0.00
Stage- 5	Automatic	0.00
	Inter-connected to other departments	
	Index of Online Service Delivery	0.58

Source: Field Survey, Calculation on the basis of UN/ASPA 2002; UN 2014

Table 5.1 presents the E-Governance Readiness Index. It is measured by the ratio of scores obtained divided by total points for each of the stage of online service delivery and then averaging the score. The score for each indicator is 1/0. Based on this method Bheemdatta municipal website achieved 0.58 in a scale of 0 -1. Therefore e-governance readiness index is moderate it is neither so bad nor so good. UN/ASPA E-Governance maturity model was used Stage-1 presence of web address has helped

to pass the first stage. Stage-2 observed acts/rules/circulars, service delivery procedure and required document Municipality has all these features. Based on above data online service delivery index scored 0.58 in a scale of 0-1. After that the scale was further categorized in a scale of 1-5 by using liker scale 0-.30,.30-.50,.50-.70,.70-90,.90-1 and respectively 1,2,3,4, and 5 stages were created.

Demographic profile of the respondents reflects that majority of respondents are male and only 6.7% are female. Because of socio cultural aspect women were not interested to reply on questionnaire.

Table 5.2 Sex Distribution of Respondents

Sex	Respondents	%
Male	42	93.3
Female	3	6.7
Other	0	0
Total	45	100.0

Source: (Field Survey 2020)

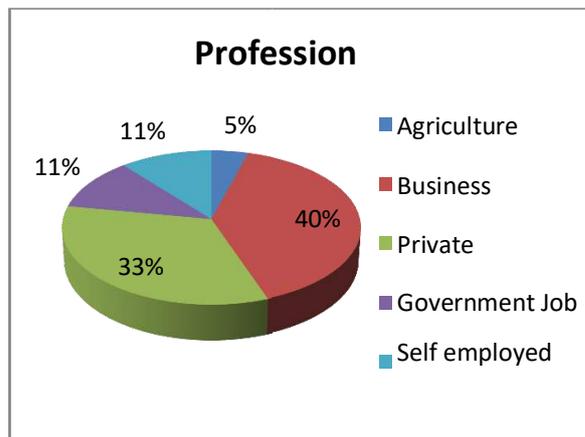
Table 5.3 Age of the Respondents

Age	Respondents	%
26-30	6	13.3
31-35	11	24.4
36-40	10	22.2
41-45	12	26.7
46-50	1	2.2
51 and Above	5	11.1
Total	45	100.0

Source: (Field Survey 2020)

As per table 5.3 large number of respondent (73%) belongs to age group of 31-45. Whereas, data shows 13% of the respondents fall below 30 and 11% of total population of respondent are above 50.

Chart 1: Professional background



Source: (Field Survey 2020)

The occupation of respondent are as follows; 40% are handling business, 33% are engaged in private job, 11% are in government service, 5% of the respondent are busy with agriculture and 11% of respondents are self-employed.

5.2 Factors Affecting effectiveness of service delivery

The described statistics (minimum, maximum, mean, standard deviation) of dependent variable and its indicators are presented in table 5.4 as below

Table 5.4 Descriptive data of Dependent variable

(Effectiveness of service delivery) (n=52)

Dependent Variable and Indicators	Minimum	Maximum	Mean	Standard Deviation
Index of Performance of Service Delivery (Very Poor to Excellent)	2.25	3.69	2.95	0.383
a) Responsiveness (time saving, feedback mechanism)	1.65	3.90	2.69	0.503
b) Reliability (dependability, accuracy)	2.00	4.00	3.01	0.431
c) Assurance (credibility of service)	2.00	4.00	3.13	0.561
d) Empathy (communication, sufferings)	2.00	4.00	2.95	0.544

e) Cost Saving	2.00	4.00	2.84	0.490
f) Satisfaction	2	4	3.10	0.664

Source: (Field Survey 2020)

The table 5.4 as per the respondents view the mean score of effective service delivery, ranges from 2.25-3.69 in a scale of 1 (Very Poor) to 5(Excellent) with a mean of 2.95. This indicates that effectiveness of service delivery ranges from below medium to above medium to above medium level in the municipality under study. It is measured in a scale of 1 (Very poor) to 5 (Excellent) calculating by index of scores of indicators: responsiveness, reliability, assurance, empathy, cost saving and satisfaction. The score of indicators of dependent variable is explained subsequent paragraph.

Outcome in respect of responsiveness ranges from 1.65 to 3.90 - it differs approximately from low level to high level. The respondents were asked to evaluate the extent they agree/disagree that the number of visit, waiting time, and service delivery speed are at acceptable level, that application processing time is reduced and that the feedback (complaints and comments) system is easier.

Table 5.5 Descriptive data of Independent variables

S.N.		Min.	Max.	Mean	S.D.
1	E-Governance Readiness	1	3	2.02	0.82
2	Client Readiness	1	3	2.11	0.38
	Mobile	1	1	1.00	0.00
	Smart phone/ Tablet/Laptop/PC	0	1	0.89	0.31
	Reliable Power Supply	1	1	1.00	0.00
	Internet Connectivity	0	1	0.84	0.36
	Download file from internet	0	1	0.38	0.49
	Knowledge of online services	2	4	2.93	0.61
	Knowledge of ICT	1	4	2.36	0.77
3	Age	27	64	39.60	8.61
4	Education	2	5	4.18	0.77

Source: (Field Survey 2020)

The descriptive statistics(Minimum, Maximum, Mean, Standard deviation) of Independent variables as available in table 5.5.

Table 5.5 shows that the *E-Governance Readiness* ranges from 1 (Very Less Developed) to 3 (Medium Developed) in the scale of 1 (Very Less Developed) to 5 (Highly developed). Municipality falls under moderate conditions.

The *Client Readiness* score ranges from 1 (Low) to 3(Medium) in the scale of 1(Very low) to 5(Very High); the mean score is 2.11 indicates that average client awareness is Low.

From field study, it is observed that performance varies for various reasons. According to analytical framework the possible explanatory variables identified were *E-Governance Readiness*, *Client Readiness* and some demographic characteristics like age, education. Therefore, the following sections attempt to explain the variation of effectiveness of service delivery.

Table 5.6 Effectiveness of Service With Respect To E-Governance Readiness (n=52)

E- Governance Readiness	
Effectiveness of Service Delivery	Moderately Developed
Poor	11.1%
Medium	33.3%
Good	55.6%
Total	100%

Source: (Field Survey 2020)

Table 5.6 depicts the variation of performance of service delivery for change in E-Governance Readiness. It reveals that service delivery is relatively better for relatively higher. Therefore, there might be some positive correlation between *E-Governance Readiness* and performance of service delivery; and the change in the dependent variable might be attributed to *E-Governance Readiness*, however this data may not assure that the relationship is statistically significant.

Table 5.7 Effectiveness of Service With Respect To Client Readiness

Effectiveness of Service Delivery	Client Readiness		
	Low	Medium	High
Poor	100.0%	57.9%	-
Medium	-	23.7%	16.7%
Good	-	18.4%	83.3%
Total	100.0%	100.0%	100.0%

Source: (Field Survey 2020)

From Table-5.7, data reveals that service delivery is relatively better for higher level of *Client Readiness*. 83% of the respondents with high level of Client Readiness consider that the service delivery is good, which is 18% for medium level of Client Readiness; and nobody with low level of Client Readiness consider that service delivery is good. Whereas 57.9% respondents with medium Client Readiness and 100% with low level of Client Readiness consider that service is poor. Therefore, there might be some positive correlation between *Client Readiness* and *performance of service delivery*; and the change in the dependent variable might be attributed to *Client Readiness*, however this data may not assure that the relationship is statistically significant.

Table 5.8 Effectiveness of Service With Respect To Age

Effectiveness of Service Delivery	Age	
	Age Less than 40	Age greater than 40
Poor	42.3%	63.2%
Medium	23.1%	21.1%
Good	34.6%	15.8%
Total	100.0%	100.0%

Source: (Field Survey 2020)

From Table-5.8, data reveals that *service delivery* is relatively better for respondents with age less than 40 than that for respondents with age greater than 40. Only 15.8% of the respondents with age greater than 40 find that service delivery is good. On the other hand 34.6% of the respondents with age less than 40 find that service delivery is good. Therefore there might be some negative correlation between age of respondents and

service delivery; and the change in the dependent variable might be attributed to age.

5.3 Correlation and Regression Analysis

To understand the strength of relationship between independent and dependent variables Pearson's correlation tests have been done by using statistical tool SPSS 20. Table-5.8 shows Correlation Matrix of dependent and independent variables. Bivariate correlation analysis has been done for this purpose.

The Pearson correlation test shows that *E-Governance Readiness* is strongly associated with dependent variable, the correlation co-efficient is 0.51 and p-value is significant at 0.01 level (2-tailed). *Client Readiness* is also strongly associated with dependent variable, the correlation co-efficient being 0.41 and p-value is significant at 0.01 level (2-tailed). However no significant association could be found for age with effectiveness of service delivery

Table: 5.9 Correlation of Independent and Dependent Variable

Independent Variable	Effectiveness of Service Delivery (Beta coefficient)
E-Government Readiness	.51**
Client Readiness	.41**
Age	-.21

** . Correlation is significant at the 0.01 level (2-tailed), * . Significant at the 0.05 level (2- tailed).

Source: (Field Survey 2020)

The regression model is presented in Table 5.9 considering *Performance of Service Delivery* as dependent variable; and *E-Governance Readiness, Client Readiness, Age* and *Education* as explanatory variables.

Table 5.10 Regression of Independent and Dependent Variable

Independent / Explanatory Variables	Effectiveness of Service Delivery (Beta coefficient)
E-Gov. Readiness	0.371**
Client Readiness	0.480**
Age	-.314
Adjusted R ²	0.46
Model Sig	.000

*Significant at $p < 0.05$; ** Significant at $p < 0.01$

Source: (Field Survey 2020)

The beta coefficient for *E-Governance Readiness* is .371 significant at 0.01 level, which rejects Null hypothesis. Therefore, the hypothesis H1 stands and confirms that there is significant contribution of *E-Governance Readiness* on service delivery.

The beta coefficient for *Client Readiness* is 0.48 significant at 0.01 level which also rejects Null hypothesis. Therefore, the hypothesis H2 stays and establishes that there is significant contribution of *Client Readiness* on service delivery. It is also observed that 83% of those having medium level of *Client Readiness* score service performance good; whereas only 18% of those having low level of *Client Readiness* score service performance good. In response to identify the obstacle in mutation service delivery, 48% identified lack of client awareness as problem and the same percentage of respondents suggests for raising client awareness for better service delivery. Therefore *Client Readiness* has significant contribution in mutation service delivery.

The beta coefficient for age is 0.314 significant at 0.05 level (2 tailed) which also rejects

Null hypothesis. However for the beta coefficient being negative indicates that age negatively affects dependent variable. The data shows that the higher the age is, the service delivery is poorer - which is contrary to the assumed hypothesis H3 was assumed in the sense that aged persons are likely to have more experience on land and mutation which might help them getting service with less difficulty. However the hypothesis H4a is not established rather the opposite fact is observed. The mean age of the respondents was 39.6 with minimum age being 26. Data in Table-5.10 showed that service delivery is relatively better for respondents with age less than 40 than the respondents with age greater than 40. The argument of the findings could be that younger people (age less than 40) have more *Client Readiness* (Pearson Correlation 0.29 sig at 0.05 level) which help them in getting better service. The limitation of the finding could be that this hypothesis is true for minimum age up to 26 years and not below that until further study is done.

The adjusted R^2 for the model is 0.46, i.e. 46% variation in dependent variable (effective of Service Delivery) can be attributed to three explanatory variables (*Client Readiness*, *E-Governance Readiness* and age) in the model having first with significant contribution. The *Client Readiness* has the highest beta coefficient (0.48) meaning its impact on service delivery is higher. Therefore among the 3 (Three) explanatory variables in the study *Client Readiness*, *E-Governance Readiness*, and Age are three factors that significantly affect service delivery.

5.4 Insight from Key Informant Interview

12 key informant interview were taken from municipality to understand the hidden insight from service provider as something which help to add value to the research. Some of the major insights from interview are presented here.

E-Government readiness

KII-1

One of the senior official mention that "*Far-western province is too remote in comparison to the other province, but we are prepared for the best we can deliver. When other*

municipality doesn't have website/ webpage we register the domain, hired IT engineer and received training from the municipality"

KII-9

Another Section officer who recently got transferred from Darchula one of the hilly and remote part of the province said *"One the first day, when we had meeting our senior officials told to reply the mail to client and continuously check your mail to make sure no one is out from required service, but number of mails were hard to reply but I am trying my best"*

Client readiness

KII-5

One of the IT officer who was working for making digital governance better has experience *"We had run the campaign to promote digital governance, once we were giving training in local community few publics were there to join the campaign. Later on we find that they got information through our website notice"*

KII14

Officer who is working in the Municipality has mentioned *"I was in leave due to my personal problem, after a week I joined my office, I had very bad experience with the client, he visits my office to submit file for grant I replied to him we haven't published notice but he was updated from our webpage, and instantly argued with me though my intention were clear. The problem was I am not updated and noticed on that decision"*

Demographic character

KII-7 share his experience on age and attachment for ICT *"though large number of youths are attracted towards digital governance some middle aged people have also joined the free computer and internet training and currently most of them are updated and communicate with us on virtual world.*

They KII give some insight how digital governance has made public service provider more responsible, and the benefits that digitalization has ensured.

Chapter Six

Summary and Conclusion

6.0 Introduction:

This chapter presents the summary of the study, discuss about the results by linking to the research questions. The major object of this research was to unfold effectiveness of digital services provided by municipality and status of e-governance. To attain the objective two central research question were employed i.e., What is the Current stage of digital services in Bheemdatt Municipality? Do existing service lead to effective service to the public of Bheemdatt? The association of variable has been tested and link has been established and in line with that hypothesis has been tested.

6.1 Research Finding

The analysis was made in line with the analytical framework that identified five independent variables: *E-Governance Readiness*, *Client Readiness*, and Age. For this, quantitative analysis like *descriptive statistics*, cross tabulation, Pearson's correlation, and regression tests were performed through SPSS. The relevance of the factors in service delivery was also explained by qualitative analysis.

From analysis it is observed that among the five independent variables *E-Governance Readiness*, *Client Readiness*, and age have significant causal relationship on mutation service delivery. Accordingly, the hypothesis H1, H2and H3 were supported by data..

Among the three key factors *Client Readiness* is found to have strongest contribution in service delivery which indicates that knowledge and capacity of mutation and ICT

significantly affects service delivery. This fact complies with the concept of demand side approach that client awareness can act as key factor in getting the service easily. Moreover without end-user be capable enough to receive the service coping up with technology, E-Governance is less likely to promote better service. Hence the hypothesis: the higher the Client *Readiness*, the better the service - has been validated. This finding supports the concept of bridging digital divide to reach the benefits of E-Governance to the poor, disadvantaged and marginalized group of people.

Age is found to have negative relationship with service performance. It indicates that young aged people under 40 find the service performance better than people above 40. It might be that young aged people are much aware of technology. Although the more aged people were expected to have better service for having more experience, however data didn't support such assumption.

6.2 Linking Research Question with Research Finding

1. What is the current stage of digital services in Bheemdatt Municipality?

E-Governance Readiness Index was made to find the stage. It is measured by the ratio of scores obtained divided by total points for each of the stage of online service delivery and then averaging the score. The score for each indicator is 1/0. Based on this method Bheemdatta municipal website achieved 0.58 in a scale of 0 -1. Therefore e-governance readiness index is moderate it is neither so bad nor so good. UN/ASPA E-Governance maturity model was used Stage-1 presence of web address has helped to pass the first stage. Stage-2 observed acts/rules/circulars, service delivery procedure and required document Municipality has all these features. Based on above data online service delivery index scored 0.58 in a scale of 0-1. After that the scale was further categorized in a scale of 1-5 by using liker scale 0-.30,.30-.50,.50-.70,.70-90,.90-1 and respectively 1,2,3,4, and 5 stages were created.

Thus the current stage of municipality is limited up to Interactive. Transactional and seamless services are the future path for the municipality.

2. Do existing services lead to effective service to the public of Bheemdatt?

It is found that effective service is not only related with particular component but some factors such as Digital government readiness, Client readiness and age does not have any serious impact on effectiveness of service delivery. The existing services have satisfied. In moderately developed E-Governance, 50% of the respondents are satisfied with service;

6.3 Conclusion

This research made an attempt to analyze the interrelation between digital governance and effectiveness of service delivery. Also, this thesis has managed to map the current stage of e-governance through UN/ASPA model. The study was carried out with three independent variable. The strong reason for effective service delivery client readiness.

6.4 Future Scope for Research

Due to the obligation to complete the thesis within the allocated period, it remained a tough task to have comprehensive look as comparative with another municipality. It could have been better if at least two municipalities were compared to achieve more vibrant understanding.

Therefore, further research can be carried out keeping following things into consideration.

- This research has taken only one indicator from demographic character as Age more other indicators are unanswered.
- Two or more municipalities can be taken into consideration for wider scope of the research.

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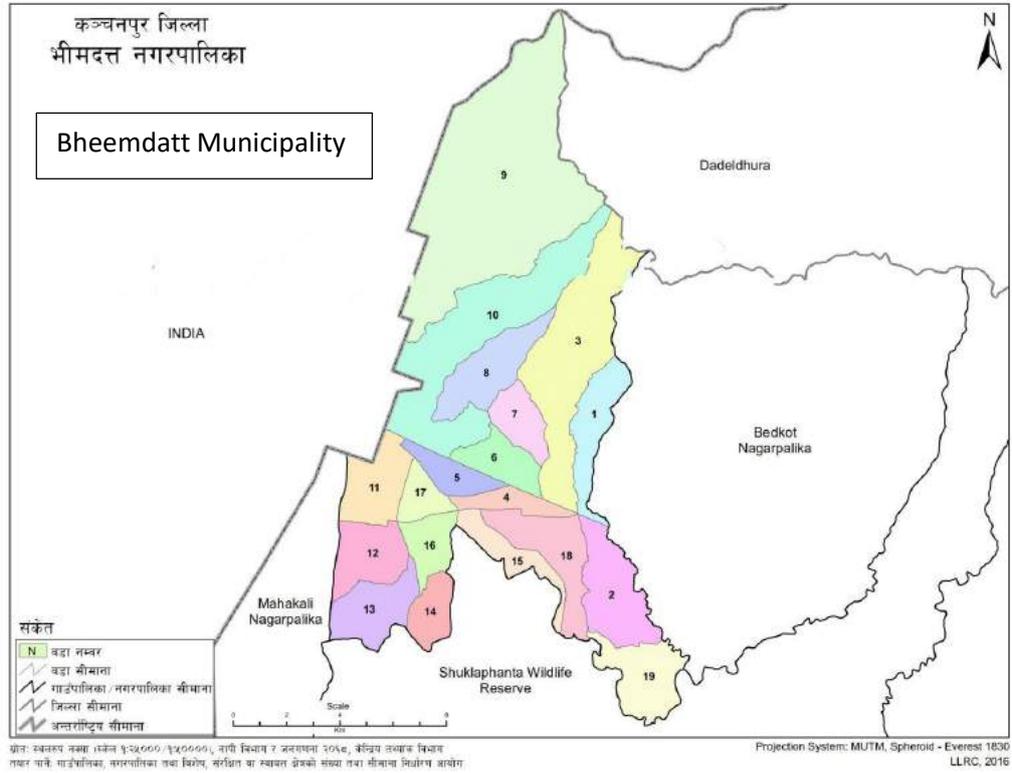
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Annexures

Annex 1: Municipality Map



Annex 2 A: Questionnaire for Service Seeker
Master of Public Policy and Governance,
North South University,
Dhaka, Bangladesh
Questionnaire Survey- A
(For Service Seeker)

**"Digital Governance in Nepal: Online Service Delivery at
Bheemdatt Municipality of Kanchanpur District"**

Dear Sir/ Madam,

Namaste

We would like to request you for your valuable time and effort on the subject of research. This questionnaire is a part of research paper entitled 'Digital Governance in Nepal: Service Delivery by the Bheemdatt Municipality'. The purpose of this research is to assess the impact of digital governance and to identify the factor affecting the effectiveness of service delivery. This questionnaire will take minimum 15 minutes to maximum 30 minutes of your precious time. Please be frank and honest in your answer.

Disclaimer:- The data gathered through this questionnaire would be used exclusively for academic purpose only. Your name is strictly optional and your shared information will not be used other than this research purpose.

Section 1:-

Respondents Characteristics

Date: 2020/07/

Name (Optional):.....

Contact:

Gender: F M O

Age:

Education:

Occupation:

Section: 2

1. Which of the following ICT technology do you use (can be multiple answer)

S.n.	Statement	Response	Comments
	Mobile	Yes/ No	
	Fixed Telephone	Yes/ No	
	Smart Phone/ Computer/ Laptop/Tablet	Yes/ No	
	Reliable Power Supply	Yes/ No	
	Internet Connectivity	Yes/ No	
	Download file from internet yourself	Yes/ No	

2. How would you like to rate your ICT skills?

1=Very Poor	2=Poor	3=Good	4=Very Good	5=Excellent
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3. Do you know that Bheemdatt Municipality has a website?

a. Yes b. No

b. If yes how did you come to know about it?

- Family
- Friends
- Relatives
- Internet/Google search
- Municipality office

4. How did you apply for services?

- a. Manual
- b. Online

5. As per your knowledge/experience what kind of digital services are delivered by municipality?

- a. Download form
- b. Employment information and application
- c. Press releases and notices
- d. Communication
- e. Grievances

6. Effectiveness of Service delivery:

1 Very poor: 5 Very Good

Theme	Statement	Your Rating					Comments
		1	2	3	4	5	
Responsiveness (Time Saving and feedback mechanism)	Requirement of frequency of visit to office is acceptable						
	Service delivery is faster						
	Feedback/complaint mechanism is easier						
Reliability (Accuracy, dependability)	Error rate decreased						
	Work in progress can be easily monitored						
Assurance (credibility)	Availability and access to required information easier						
Empathy (communication, less sufferings)	Easy to communicate with service provider						
	Perceived level of hassle is less						
Cost Saving	Travel cost less						
	Extra cost less						

7. What is your overall satisfaction with present service delivery of municipality?

1	2	3	4	5
Highly dissatisfied	Dissatisfied	Neutral	Satisfied	Highly satisfied

8. The main problems for using online services of the municipalities

- Lack of connectivity
- Lack of necessary infrastructures (electricity, computer, etc.)
- Absence of updated information
- Lack of skills of the user
- Other problem, if any...

Annex 2 B: Questionnaire for Service Provider

Master of Public Policy and Governance,
North South University,
Dhaka, Bangladesh

Questionnaire Survey- B (For Service Provider)

"Digital Governance in Nepal: Online Service Delivery at Bheemdatt Municipality"

Dear Sir/ Madam,

Namaste

We would like to request you for your valuable time and effort on the subject of research. This questionnaire is a part of research paper entitled 'Digital Governance in Nepal: Service Delivery by the Bheemdatt Municipality'. The purpose of this research is to assess the impact of digital governance and to identify the factor affecting the effectiveness of service delivery. This questionnaire will take minimum 15 minutes to maximum 30 minutes of your precious time. Please be frank and honest in your answer.

Disclaimer:- *The data gathered through this questionnaire would be used exclusively for academic purpose only. Your name is strictly optional and your shared information will not be used other than this research purpose.*

Date 2020/07/

Name (Optional):

Contact:

Gender: F M O

Age:

Education:

Office:

Designation:

1. Please give your response to the following question regarding digital readiness :

	Issue	Your Response	Comments
i.	Do you have sufficient computer in your department	Insufficient/ Moderate/ Sufficient	
ii.	Do you have internet connection	Yes/ No	
iii.	Is internet speed sufficient to provide service	Slow/ Medium/ High	
iv.	Is there backup power source	Yes/ No	
v	What is the status of website	Static/ Dynamic	
vi	Do you have municipal app	Yes/ No	

2. How do you measure your ICT skill for delivering digital services?

1	2	3	4	5
Very Poor	Poor	Good	Very Good	Excellent

3. Which mode is comfortable for delivering services?

i. Digital

ii. Manual

4. Digital government readiness:-

Question regarding digital status	:	Response	Comments
Is your website updated?	:	Yes/ No	
Are the available services published?	:	Yes/ No	
Are all Acts/ rules/ gazette/ circular to this office available there?	:	Yes/ No	
Is citizen Charter available in the website?	:	Yes/ No	

	Are you available to your client in digital platform?	:	Yes/ No	
	Are procedures for getting service available?		Yes/ No	
	Are the delivery period, cost of service well specified		Yes/ No	
	Downloadable forms and files available		Yes/ No	

5. Is it possible to interact with other department in digital platform?

Yes

No

6. Does digital governance in your organization has reduced the bureaucratic complexity?

1	2	3	4	5
Very- less	Less	moderate	high	very- high

7. Effectiveness of service delivery:

Theme	Statement	Your Rating					Comments
		1	2	3	4	5	
Responsiveness (Time Saving and feedback mechanism)	Requirement of frequency of visit to office by service receiver is less						
	Service delivery is faster						
	Feedback/complaint mechanism is easier						
Reliability (Accuracy, dependability)	Error rate decreased						
	Work in progress can be easily monitored						
Assurance (credibility)	Availability and access to required information easier						
Empathy (communication, less sufferings)	Easy to communicate with service receiver						
	Perceived level of hassle is less						
Cost Saving	Cost of operation is less						

8. Your overall satisfaction with present service delivery (by using ICT)

1	2	3	4	5
Highly dissatisfied	Dissatisfied	Neutral	Satisfied	Highly Satisfied

Please explain:-

9. In your opinion what are the things to be considered to make digital governance much more reliable?

Annex 2 c: Interview Checklist

**Master of Public Policy and Governance,
North South University,
Dhaka, Bangladesh**

Interview Checklist (For Service Provider)

1. Kindly mention what initiatives has been taken so far for digitization of Municipality including ICT Infrastructure? What is the current situation of online service delivery?
2. What sort of master plan or future plan are made?
3. What is the status of human resource and training in delivering services?
4. What are the benefits people receive from online service delivery?
5. What sort of changes are observed in service delivery regarding access to information, bureaucratic complexity, discretionary power and client suffering after the introduction online service.
6. What are the obstacles in delivering municipal service online? How to overcome those problems?