E-Governance for the Betterment of Local Governance in Afghanistan

By

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15272018

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Declaration

It is hereby declared that

1. The thesis submitted is my own original work while completing degree at Brac University.
2. The thesis does not contain material previously published or written by a third party, except where this is appropriately cited through full and accurate referencing.
3. The thesis does not contain material which has been accepted, or submitted, for any other degree or diploma at a university or other institution.
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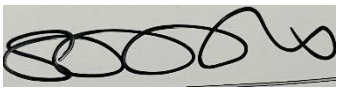

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Abstract/ Executive Summary

E-Government is widely recognized as a successful tool for service delivery in both developing and developed countries, and it is recognized as a good means to achieve good governance by all developed countries in general and developing countries like Afghanistan in particular. The importance and function of E-Government in improving and ensuring good governance in Afghanistan's local government, as well as the role of E-Government in delivering government services to the local and marginalized people in an efficient, easy, and effective manner, are examined in this paper.

The qualitative and quantitative research methodologies were both used in this study. Interviews and a self-administered questionnaire were used to collect data from random samples of Afghan local government personnel.

The components in this study were created by combining measurement scales from previous research and the literature. MS Excel and the SPSS Program were used to examine the data.

To find out how much people believe in E-Governance positive impacts on local governance Afghanistan the good governance achievement through E-Governance first the employees, were assessed about their knowledge of E-Governance and they were asked about the available basic facilities which will be important for E-Governance successful implementation, second they were asked how E-Government affects good governance, including the reduction of corruption, the intensity of clarity, the efficiency of service, the level of convenience, the extent of accessibility, and the level of interaction, and how good governance is measured by accountability, transparency, responsiveness, the rule of law, effectiveness, and participation. Employees of local government agencies have fundamental knowledge and facilities for implementing E-Government, according to this survey.

Furthermore, the study's findings revealed that employees believe that E-Governance efficiently and effectively delivers public services, and that the delivery of e-services has a positive impact on citizen satisfaction, and that the E-Governance initiative leads to good governance promises, subject to hypothesis validation. Understanding the current state of E-Governance in Afghanistan can assist policymakers and implementers in ensuring that public services are delivered effectively.

This study and its findings have some limitations, but they also point to areas where more research should be conducted in order to achieve good governance through E-Governance in local governance agencies.

Keywords: E-Governance; Good governance; Local governance; E-service

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List of Acronyms

IDLG	Independent Directorate of Local Governance
GovMIS	Governance Management Information System
AGO	Attorney General's office
MoJ	Ministry of Justice
OAA	Office of Administrative Affairs
M&E	Monitoring and Evaluation
SC	Supreme Court
PGO	Provincial Governor's Office
DGO	District Governor's Office
ICT	Information Communication Technology
NGO	Non-government organization
OAA	Office of Administrative Affairs
G2G	Government to Government
DLPC	Department of Local Programs and Coordination
ToT	Training of Trainers
SNG	Subnational Governance
ASGP	Afghanistan Subnational Governance Program
LOGO	Local Governance
MCIT	Ministry of Communication and Information Technology
MoI	Ministry of Interior
24x7	24 hours a day, 7 days a week
APRA	Afghanistan Postal Regulatory Authority
ATRA	Afghanistan Telecommunication Regulatory Authority
AWCC	Afghanistan Wireless Communication Company
ICTI	Information Communication Technology Institute
GSM	Global System for Mobile
ITU	International Telecommunication Union

Chapter 1

Introduction

The endeavor of the study is to assess and find out the benefits of E-governance in local governance of Afghanistan. This chapter introduces E-governance and Local-governance in general, and will introduce the current situation of E-governance and Local-governance in Afghanistan; this chapter will also demonstrate the readiness of Afghan local governments to transition from traditional forms of government to E-government. This chapter will also cover the problem statement, the study's justification, the research objectives, the study's scope, and its constraints.

1.1 Background of the Study

Governance has become a top priority in both developed and developing countries as a result of the direct and indirect effects of globalization. (Salam, 2013).

With the advancements of Information Communication Technology (IDC), the governance experienced a new dimension of governance and the E-Governance concept emerged. The faster development of ICTs helped the process of good governance and development.

And it is more useful when it comes to local governance entities since it is more difficult for each government to supply services than it is for central government agency. When it comes to selecting an effective tool for service delivery, all emerging and developed countries agree that e-government is an effective tool, as well as a means of ensuring good governance. (Heeks, Understanding e-Governance for Development, 2001)

As the technology is progressing very rapidly, and it has created lots of opportunities; with the use of these technologies the public institutions and private organizations can be rapidly transform to a more transparent, accountable, quality organizations. With these technologies

governments can enhance the quality, speed and reliability of service delivery to the citizens as well as to the businesses.

With the use of ICT, several governments throughout the world are seeking to modernize and transform the way their administrations operate. (Yigitcanlar, 2003)

People or service receivers' expectations for enhanced and quality service delivery is increased with the advancements and improvements in Information Technology (IT).

ICTs are now utilized and assist us in nearly every aspect of our lives. They assist with the management and control of a variety of emergency services, water supply, electricity grids, and food distribution networks. Health care, education, government services, financial markets, transportation systems, e-commerce platforms, and environmental management are among the industries they assist. Furthermore, they establish effective communication channels that enable people to speak with their colleagues, friends, and family at any time and from virtually anywhere. (ITU, 2017)

E-government refers to the use of information technology by government agencies; it is a method of transforming government agencies' relationships with citizens, corporations, and other stakeholders. E-Government is seen as a strong instrument in the hands of government that may be used to increase revenues, save costs, and improve public service delivery (Saeed, 2012). E-Government is also utilized to enhance accountability, efficiency, and openness in government agency operations, as well as to provide a means of ensuring good governance. (Harris, 2000). (Salam, 2013)

Information and communication technologies (ICTs) can be a powerful tool for achieving good governance objectives. This 'e-governance' can improve governance effectiveness and efficiency, as well as provide other benefits. (Heeks, Understanding e-Governance for Development, 2001). According to the (Heeks, Understanding e-Governance for

Development, 2001): E-governance makes three major contributions: it improves government connectedness with citizens (e-citizens and e-services), it improves procedures (e-administration), and it builds external relations (e-society).

(Yigitcanlar, 2003) Many governments around the world are striving to boost transparency, ensure accountability, and improve service quality by implementing ICTs, according to the report, but it is also a method to modernize and modify the way their administrations operate. He goes on to say that E-government is a sophisticated system made up of ICT networks that is revolutionizing the way governments collect, integrate, and share information, deliver services, and communicate with one another and the public. Many people view the internet to be a transformational technology, and they believe that e-government is part of a new vision for the twenty-first century. The use of ICTs to enable participatory public decision-making with e-government offers governments with information technology to help them run more efficiently. E-government makes use of ICT-enabled innovations and actions, as well as increased speed, scalability, and accuracy.

E-government makes use of information and communication technologies (ICTs) to improve the efficacy, efficiency, transparency, and accountability of transactional and informative exchanges, as well as to empower individuals through information use and access. E-government attempts to make interactions and exchanges between the government and businesses (G2B), the government and citizens (G2C), and inter-agency ties (G2G) easier, more friendly, transparent, and cost-effective. It reduces the procedures and tries to deliver a service so that service recipients would rarely have to wait in lines at government departments or offices; instead, they will be able to get services or conduct business through a specific web site. As a result, E-government requires increased internet access, enhanced inquiry and search skills, as well as organized government information, public contributions, improved public services, computer security, and funding. (Yigitcanlar, 2003)

Because there is no single cause or consequence for the digital divide, it is a complicated subject. Unfortunately, new e-government technologies alone will not be enough to bridge the digital divide because they rely heavily on human capital (for computer installation, maintenance, updates, and efficient use), physical capital (for infrastructure, hardware, and software), and the general economic policy environment (for functioning payment systems, stability) (DDN 2003). E-government presents many chances for local governments to better serve their inhabitants, but it also disadvantages non-IT users and risks growing the digital divide. The Digital Divide Network (DDN) is a non-profit organization dedicated to bridging the (2003). (Yigitcanlar, 2003)

E-government theories are prevalent in a variety of formats around the world, but there are few examples to draw on when constructing a comprehensive framework for e-governance at the periphery of government levels. (Rahman, 2009)

People in remote locations often find it difficult or impossible to get government administrative and social services. To ensure that all Afghans, regardless of where they live, have equal access to government information, the Government of Afghanistan will take steps to make all public government documents available on the Internet. (MCIT, Information and Communication Technologies (ICT) Policy, 2003)

This study will be focusing on G2G service delivery approach and will try to assess the effectiveness of E-governance in Local governance entities of Afghanistan; and will attempt to generally evaluate the current situation of E-governance at Local level.

1.2 Statement of the Problem

E-government is about making services more accessible, and accountable; the citizens and customers' needs to be at the heart of everything the governments do. The technology is used for supporting the public agencies to become more open, breaking down social exclusion, and

accountable bodies, which can encourage and enable local/rural communities and citizens to contribute to the modernization, and exercise their responsibilities and rights more easily. Local e-government is the implementation of this concept at the local level, where the vast majority of service recipients reside. Local e-government has the potential to alter the way public service providers do business, resulting in significant improvements in service delivery effectiveness and efficiency. It may also enable governments to be really integrated, transparent, and responsible (ODPM 2002). (Yigitcanlar, 2003)

When we compare the state of E-Government in local Afghanistan to the state of E-Government in the country as a whole, we see that it is very weak. During the previous 15 years, the government's concentration has been mostly on Kabul, the capital, where all of the ministries are based. Now that the central ministries have been largely updated, the focus must turn to the provincial and district level local departments of line ministries. The existing state of communication and information exchange between the center and the provinces is dire, and urgent reforms are required. Some government institutions, for example, require clients to bring approvals from provincial officials by delivering the paperwork in person. They could get such clearance instantaneously over the internet, or they could send the documentation to necessary government bodies by email. Sending clients from districts to provinces and provinces to the capital for modest government services is a major burden for citizens, and it also creates opportunities for corruption. (Najimi, 2015)

In order to ensure that all the people have easy, fast and better access to government services, Afghan government system is divided into three administrative layers which are the central government, provincial governor’s offices (PGOs) and district governor’s offices (DGOs) which we call it (sub-national or local governance). Local governance entities are acting as representative of central government but they are not completely autonomous, so it is always required for them to carry out their functions in close coordination with central government to

get support of central government. As service receivers are always expecting the government to provide them efficient and effective services; there is a need to intervene and decrease bureaucracy. However, the existing traditional system that is used by local governance entities is very difficult and even sometime impossible to meet the needs of the people; therefore, it is proposed that E-Governance can meet all the challenges and provide the service as expected by the people.

This research study examines current issues in Afghan local governance in order to determine how much E-governance may assist Afghan local governance in overcoming its existing challenges and hurdles and achieving improved local governance in Afghanistan.

1.3 Rationale of the Study

It is now commonly understood that, with the use of ICT, we can provide improved economic development prospects, and that ICT plays a crucial role in improving productive capacity, accelerating economic transition, and improving international competitiveness for emerging countries. It's also widely acknowledged that the number of options and choices available in emerging countries is growing all the time. It is believed that information and communication technology (ICT) is a powerful enabling instrument for overcoming some of the most significant barriers and challenges to entering the global economy and ensuring future growth potential. It has the ability to transform old issues that were only available with manual processes into extraordinary opportunities for long-term economic development, much like it has done for enterprises in the industrial sector. ICTs are utilized not just to gather, store, analyze, and disseminate massive amounts of data at low cost, but also to network, interact, and communicate across the globe (Crede and Mansell, 1998)." (Ndou, E - Government for Developing Countries: Opportunities and Challenges, 2004).

The term E-government or digital government is defined as to improve and/or enhance the effectiveness and efficiency of service delivery by public sector with the usage or internet services and www technologies. The domain includes delivery models which are diverging from government services to the businesses, citizens and the government employees as well as other governments. Therefore, E-government is about usage of systems that provide better services to the people and businesses, by rethinking processes and organizations, and changing the organizational culture and behavior. (Regional Foresight Methodology, 2013)

Furthermore, information and communication technology (ICT) has the potential to improve the efficiency with which government services are delivered. According to the UNDP (2007), "poor communities can be empowered by e-governance, and policymakers and service providers can become accountable to them through its use." In today's literature, the motivations for e-government and e-services are thoroughly documented. From a demand and supply standpoint, the phrases e-services and E-Government can be compared. On the supply side, e-government can provide citizens with access to e-services; on the demand side, people's desire for electronic services or their level of e-service use can be used to justify e-government participation.

This study looks after the importance and role of E-governance in betterment and or ensuring good governance in Local governance of Afghanistan; and the role of e-governance in delivering the government services to the local and marginalized people.

The findings of this study will aid both e-government administrators and MCIT in determining how essential e-governance is at the local or subnational level, and how much it can help local governance agencies improve. This study and its findings will aid the government in determining the role of E-Government in ensuring good governance at the local and subnational levels in Afghanistan. The findings of this study will also assist e-government managers in

improving and/or enhancing the use of E-government and delivering better services at the local or subnational level. Meanwhile, the government can apply the lessons gained from this study to future local e-government efforts.

1.4 Research Objectives

This research attempted to find out that how much E-governance could help the local governance of Afghanistan in bringing good governance; the objectives of the research are as follow:

I. To know the qualifications of Local government officials, and find out what basic ICT facilities they have, and what is the knowledge and capacity of government officials.
II. To find out the impact of E-Governance tools in improving local governance, and service delivery in local governance of Afghanistan.
III. To find out how much E-governance can contribute to a better and good local governance, and can insure good governance.

1.5 Research Questions

The study is concerned with the evaluation of local governance entities for E-governance implementation in Afghanistan, as per the research objectives of finding out E-governance as a way of ensuring good governance in local governance entities or making better local governance in Afghanistan. As a result, the research questions are as follows:

IV. What is the role of E-governance in betterment of Local governance?
V. Can E-governance make local governance entities accountable to central government as well as to the people?
VI. How does process simplification through ICT contribute to accountability in sub-national (Local) governance?

VII. How does process simplification through ICT contribute to transparency in local governance?

I. Can E-governance insure good governance in Local governance of Afghanistan?

1.6 Scope of the Research

The intention of E-Governance is to provide relevant and needs based information to the citizens. The focus of the research is to find out ways for the betterment of local governance with the usage of E-Governance tools, and of course enhancing the efficiency of public organizations, which finally lead to ensuring good governance.

The study looks after the positive effects of E-governance in local governance entities; In addition, it analyzes the level of E-governance understanding at local level and the very belief that the E-Governance can help in achieving our ultimate goal of good governance.

Las but not least, the research is planned to find out the linkages between citizens satisfaction and E-Governance on the way to achieving good governance; the confident level of people in deploying E-Governance at local level as a mean to achieve good governance is determined.

1.7 Limitations of the study

This study has several limitations, just like other studies. Instead of the other three generic e-governance models, this study focuses solely on the interactive-service model and comparative analysis. When it comes to the conceptualization of public service delivery, a citizens-centric approach must be followed instead of an agency-centric approach. The study is also limited to examining the benefits of e-services; other aspects of E-Government, such as e-society and e-administration, are not discussed. Furthermore, the study only looked at Government-to-Government (G2G) e-government, but Government-to-Business (G2B) and Government-to-Government (G2G) e-government are distinct, necessitating further research.

Due to time and financial limitations, the sample size was taken very small compared to the total population; the focus of the study is on Independent Directorate of Local Governance (IDLG) and some provincial governor offices (PGOs). It would be better if. As a general problem, it is found that, the employees and service receivers become doubtful about the results derived from the research.

1.8 Organization of the Report

There are five chapters in this dissertation report. The study's history, problem statement, and justification are all explained in the first chapter. It outlines the research objectives, research questions, as well as the study's scope and constraints, before concluding with the report's organization.

The literature review chapter, which includes local governance in Afghanistan, E-governance Conceptual framework, theoretical foundation, Benefits of E-governance, empirical research, and the hypotheses of this study, evaluates the literatures and contextualizes perspectives. It also gives a quick review of Afghanistan's e-governance status and initiatives, as well as how they relate to good governance.

The research technique is covered in the third chapter, which includes a brief explanation of the study area, data source, data collecting, data processing, and data analysis, as well as a test of reliability and a correlation analysis of the variables.

The fourth chapter examines the data and variables, as well as their relationships. It also includes descriptive statistics, comparative and gap analyses of each e-governance item, employee confidence levels, and advancement of good governance, as well as a reliability test, variable correlation analysis, and hypothesis validation.

The fifth and last chapter of the report contains a brief summary of the research as well as a discussion of the study. It includes a description of the hypotheses as well as the research-

proposed model of public service delivery at the local governance level, as well as issues that have been highlighted for additional investigation.

Chapter 2

Literature Review

A variety of studies are being undertaken in both developing and developed nations to analyze the importance and contributions of E-Government in local governing institutions. This chapter gives a review of the literature that is currently accessible. This chapter describes the research that has been done on the use of information and communication technology (ICT) to improve service delivery in rural parts of countries. This chapter also discusses the government of Afghanistan's initiatives aimed at enhancing the effectiveness and efficiency of service delivery.

2.1 E-governance: Conceptual Framework

E-governance is the obvious next step in the use of ICT in governance systems in order to provide greater citizen participation and deeper involvement, as well as to deliver better services to citizens at the local and national levels. (Salam, 2013).

"Using the power of ICT for the purpose of making public services more accessible, cost-effective, and ensuring their quality; and to help in building the relationship between customers and citizens, and the government agencies who work for their benefit means better implementation of local e-governance," as (Rahman, 2009) put it. Appropriate use of ICT and E-governance at the local level can support and enhance economic and social development, especially in terms of empowering officials and municipal representatives by ensuring linkages and networking through timely, responsive, efficient, accountable, and transparent services.

To meet the new requirements, an electronic platform must be developed that allows for the collection of personal information from national agencies, different levels of technological maturity in various services, high levels of security, easy and high availability, and the publication of open standards for data formats and information exchange.

To overcome these issues, designs for creating an integrated electronic services platform must take into account technological, organizational, financial, and institutional factors. In addition, procedures must be standardized, reformed, and digitized to create a legally compliant process model with a highly calibrated specified structure to support the development of the integrated platform (Inter-American Development Bank, 2006; Misra, 2008). (Rahman, 2009).

2.1.1 E-governance definitions

World Bank says: "E-Government refers to the use by government agencies of information technologies (such as Wide Area Networks, the Internet, and mobile computing) that have the ability to transform relations with citizens, businesses, and other arms of government. These technologies can serve a variety of different ends: better delivery of government services to citizens, improved interactions with business and industry, citizen empowerment through access to information, or more efficient government management. The resulting benefits can be less corruption, increased transparency, greater convenience, revenue growth, and/or cost reductions."

As per United Nations "E-government is defined as utilizing the Internet and the world-wide-web for delivering government information and services to citizens."

UNESCO defines E-governance as "Governance refers to the exercise of political, economic and administrative authority in the management of a country's affairs, including citizens' articulation of their interests and exercise of their legal rights and obligations. E-Governance may be understood as the performance of this governance via the electronic medium in order

to facilitate an efficient, speedy and transparent process of disseminating information to the public, and other agencies, and for performing government administration activities."

Based on the preceding criteria, E-Government is defined as the use of information and communication technology (ICT) and the internet to improve service delivery to stakeholders. Furthermore, E-governance allows citizens to get government services 24 hours a day, 7 days a week, from any location, in a simple, efficient, and cost-effective manner.

2.1.2 Types of interactions in E-governance

G2G (Government to Government), G2C (Governance to Citizen), G2E (Government to Employee), and G2B (Government to Business) are the four key relationship components of E-Governance.

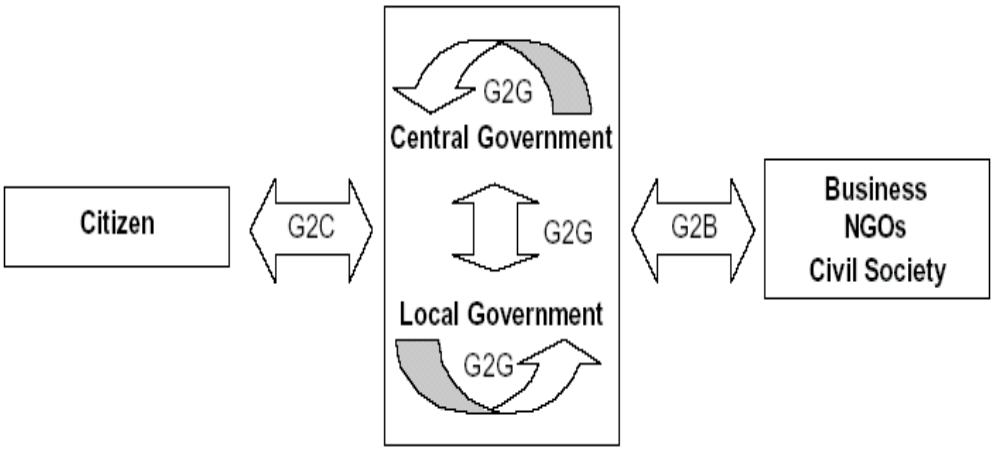

Figure 1: Interactions in E-governance (Micheal Backus)

It worth mentioning that the type of interaction, which is used in this study, is G2G (Central Government to Local Government)

2.1.3 Phases of E-governance

Phases	External: G2C	External: G2B	Internal: G2G
1st Phase: Information	Departmental/Local/National Information (organizational structure and mission statements Addresses, opening hours, employees, telephone	Business information Addresses, opening hours, employees, telephone	Knowledge base (static intranet) Knowledge management (LAN)

	numbers, rules and regulations, Laws, Petitions Government glossary News	numbers Laws, rules and regulations	
2nd Phase: Interaction	Obtaining forms from websites completing and submitting forms Form filing assistance (permits, birth/death certificates) is available online. Processes for obtaining permits, etc. E-mail, Newsletters, Group deliberation (e-democracy), Questionnaires and polls Web pages that can be customized Notification	Obtaining forms from websites Forms to be submitted Filling out forms with the help of the internet (permits) Processes for obtaining permits, etc. Notification through email	E-mail Knowledge databases that are interactive Tools for dealing with complaints
3rd Phase: Transformation	All services are incorporated into a personalized website with a personal account.	For all services, a personalized website with an integrated business account is available.	Integration of databases

Table 1: Overview of E-Government Solutions

Source: (Shailendra C. Jain Palvia, 2009), (Backus, 2001)

2.2 E-governance: Theoretical Background

E-Government is the application of Information Communication Technologies (ICTs) and the Internet to provide governmental services and electronically. It began around a decade ago. It has the potential to improve the convenience of the public/service recipients by making such services easy and available 24 hours a day, seven days a week. It also has the potential to save the government money and improve accuracy by requiring little or no direct interaction with a government employee. (Backus, 2001), (Osterweil, 2007)

2.3 Local Governance in Afghanistan

Local government refers to government that operates in limited geographic areas such as cities or villages. In other terms, local government is a country's territorial entity that has control over its territory, either partially or entirely.(Habib, 2013)

Local government serves a dual purpose: on the one hand, it represents the central government at the local level, and on the other, it is responsible for putting central government plans,

policies, and programs into action at the local level. On the other hand, it deals with local concerns for the satisfaction of the people and in accordance with the law.

Local government systems are common in other nations such as France, England, and the United States, however Afghanistan is a newcomer to this system. A system of effective governance is required for Afghanistan to have an autonomous and contemporary government, but because security is the first concern in Afghanistan, the administration does not recognize the necessity of Good Governance. The introduction of contemporary policies, plans, and programs has improved the conditions of local government with the development of bodies such as the Independent Directorate of Local Governance (IDLG). (Habib, 2013)

The IDGL was established in 2007, and powers connected to local government were transferred from the Ministry of Interior and the Administrative Office of the President (AOP) to the newly established IDLG, which reports directly to the president's office. With the support of major external funding, the IDLG's general director was given a seat in the cabinet and ministerial position. Since then, this body has become an essential focus for strengthening the function of local government agencies. In March 2010, the President signed the Policy Paper on Local Governance/Subnational Governance, which was backed by legislation on the formation of provincial, district, village, and municipal councils. (Saltmarshe and Medhi, 2011)

The formation of IDLG in 2007 and the transfer of local government responsibilities from the MoI and AOP has enhanced decision-making speed and communication with the central government. IDLG has played an important role in coordinating ministries, establishing local governance policies, providing trainings, and assisting provincial administrations, all of which have resulted in increased performance. It has taken a careful approach to duties division in district administrations, where, despite ongoing obstacles and concerns, recruitment procedures are producing better-qualified workers in some sectors. (Saltmarshe and Medhi, 2011)

Afghanistan is divided into 34 provinces. Social welfare, living circumstances, security, and service delivery are all deferent in some provinces due to a lack of appropriate administration.

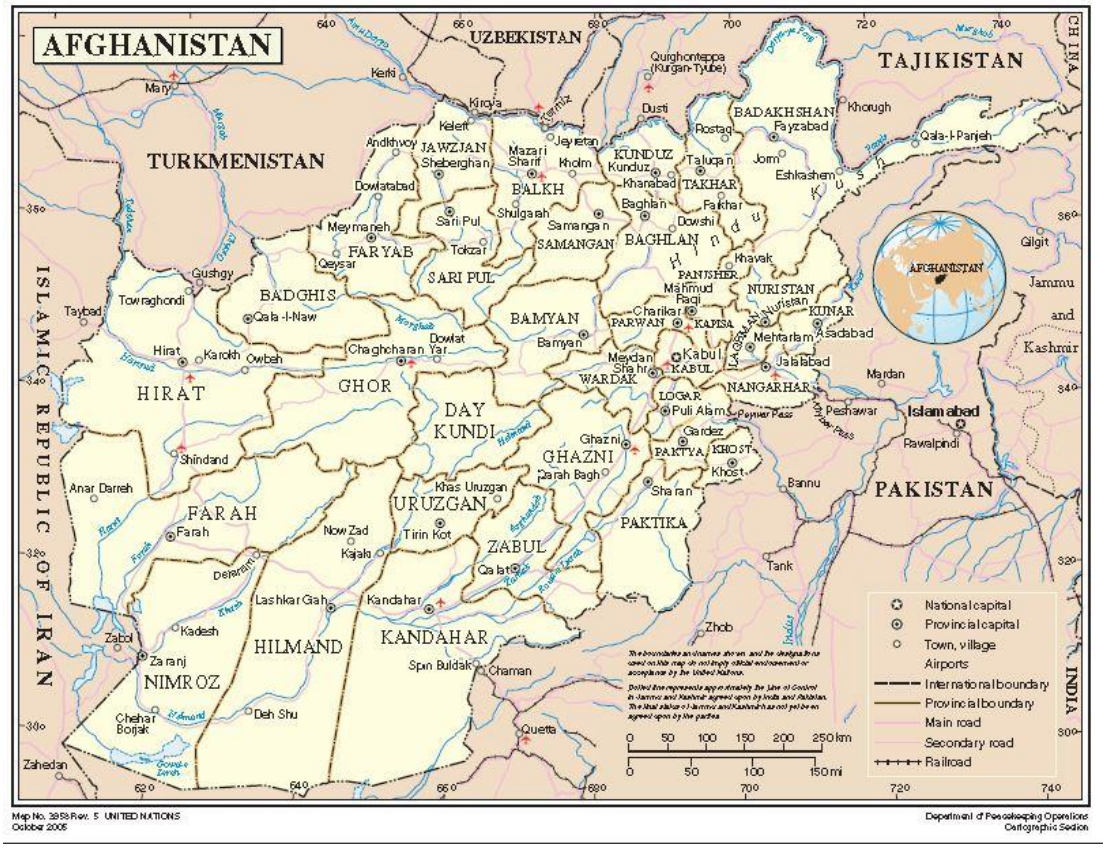

Figure 2: Afghanistan Map

In some provinces (Northern provinces) government performs better, while in some provinces (southern provinces) local government does not deliver good service.

2.4 Benefits of local E-governance

We may claim that new improvements in Information and Communication Technologies (ICTs) (E-Governance) can add value to good governance procedures, which is why E-Government is equated with good governance and widely acknowledged as an effective tool of service delivery. All established countries, as well as developing countries such as Afghanistan, Bangladesh, India, Pakistan, and others, acknowledge this.

E-Government is the use of the most modern information and communication technologies, such as the Internet, to provide improved services to all citizens, more trustworthy information,

and greater knowledge, enable access to the governing process, and encourage deeper public participation. E-Governance is a significant and distinctive commitment that decision-makers must undertake in order to develop connections between citizens and the government/public sector. (UNESCO, 2002)

E-governance should be seen to encompass all ICTs, but the key innovation is computer networks – from intranets to the Internet – creating a wide range of new digital connections:

- Connections within government – permitting and encouraging 'joined-up thinking'.
- Connections within and between NGOs – supporting learning and concerted action.
- Connections between business/citizens and the government– transforming services delivery.
- Connections between NGOs/citizens and the government– strengthening accountability.
- Connections within and between communities – building economic and social development.

The benefit of implementing new technology in government is that it extends beyond internal government operations to encompass electronic service delivery to the general public and subsequent citizen-government interaction. One of the most crucial components in the manner that e-governance will affect the nature and operations of government is the potential for interaction. (Heeks, Democracy and Government On-Line Services, 1999).

When it comes to the growth of Information Societies, it is mostly a matter of local governments, because they operate at the field level, and thus are closer and closer to the people/citizens than the central government.

Local E-government is about:

When it comes to local E-Government it is all about:

- •Improving services by making them more convenient, accessible, responsive, and cost-effective. It has the potential to make services more accessible to underprivileged and disabled individuals. It can also make connecting local services easier (between councils, within councils, and between councils and other public and private agencies). It can also improve the customer's experience working with local government services.
- Renewing local democracy: It has the potential to make local governments more accountable, open, and inclusive, as well as better suited to lead their communities. Citizens may readily argue with one another, engage with their local councils and services, hold their government officials and political representatives accountable, and quickly contact them through e-government. It can also assist councilors with their security, executive, and representative responsibilities.
- Promoting the vitality of the local economy: - Local councils and regions can encourage employment and increase the employability of their inhabitants in their relevant areas by utilizing contemporary communications infrastructure, a competent workforce, and active promotion of e-business.

Benefits of E-Governance:

With the implementation of E-Governance we can achieve mane benefits, however, following are some of the benefits:

- E-Governance improve efficiency in government. In order to reform the ways government and public administration work the usage of ICT tools are necessary. E-Governance and usage of ICT tools can improve internal operations and coordination systems, it can improve and bring efficiency in financial systems, it can improve the procurement, services and improve purchasing g and payment systems, it can be an easy an efficient way of information sharing and internal communications; moreover, it can improve performance, fasten the delivery, and increase productivity.

- Over the past two decades, the public administrations are working in reforming the services, to enhance the quality; and they are doing so with the usage of ICT tools, it is proved that ICTs can generate improvement in services delivery. When it comes to the use of ICT technologies, the Internet has boosted customer-oriented service delivery and seamless services that aim to reach beyond the framework of government organizations and public administrations. Online service delivery is becoming more widely recognized as part of a broader service delivery plan, with significant consumer and efficiency benefits. Because citizens/users of public services are frequently compelled to contact with the government and attend government offices, citizen unhappiness with government services and corruption can become a big political issue.
- ICTs can assist in delivering and ensuring effective outcomes in critical policy areas such as welfare, health, security, and education. Because governments and public administrations exist to provide policy outcomes, ICTs and the internet are major enablers in all major policy domains, and many countries have demonstrated that they can offer significant value in these areas.
- Better governance structures can help to achieve economic policy goals. More specific benefits could include implications on ICT output, e-commerce diffusion, and company productivity, as well as indirect effects like reduced fiscal requirements as a result of more efficient programs and efficiencies pouring through to the larger economy.
- Why E-government is a critical and beneficial tool for reform? Implementing E-Government can assist government agencies in focusing on the extra adjustments required to address service delivery and governance challenges. Meanwhile, it provides some useful reform tools and can help create support for those goals among high-level executives and government personnel.

- Through citizen engagement, e-government can strengthen the overall trust relationship between government and public administrations. Building confidence between governments and citizens, increasing the flow of information, and fostering active citizen involvement are all essential considerations that can be accomplished through E-Government adoption.

2.5 Empirical Studies: E-Governance Importance for Local governance

E-Government is about making services more accessible, accountable, and delivered around them, as well as giving people and customers a higher priority in everything governments do. Furthermore, it is about reducing social exclusion and making government agencies more transparent and responsible, which can enable and encourage citizens and local communities to easily exercise their responsibilities and rights, as well as contribute to modernization through the use of ICTs (ICTs). The fulfillment of this idea at the local level is known as local E-Government, and the great majority of services are delivered at the local level. Citizens and customers have intertwined and overlapping requirements. Local e-government can transform the way public service providers provide their services, and can bring huge gains in the effectiveness and efficiency in service delivery, it can assist in transforming experts' knowledge of dealing with public services in local areas. (ODPM 2002). (Yigitcanlar, 2003)

2.6 E-Government Initiatives and status in Afghanistan

Below I will draw upon some initiatives and achievements, which have been achieved by government of Afghanistan in E-Government and ICT sector.

2.6.1 History of ICT development in Afghanistan

About the history of Ministry of Communication and Information Technology (MCIT), (MCIT, History of MCIT, 2017) has stated the history of Information Communication Technology (ICT) in Afghanistan as below:

Afghanistan's Ministry of Communication was formed in 1995. However, the first electronic communication equipment in Afghanistan, namely a one-to-one wired telephone network, was connected to the presidential palace in 1898. That single-line network was replaced in 1908 by a modest telephone exchange with a capacity of 25 lines.

Telegraph services were the next step in Afghanistan's telecommunications development. The first telegraph station, which had a power of 2 KW and was primarily utilized for military activities, was erected at Baghi-Babour in 1914.

At 1919, a new telephone switchboard was erected in Kabul's Shahi-Du-Shamshera post office, with capacities of 50 and 100 lines. In the meantime, fourteen Afghan students were sent abroad to study wireless telegraph technology. Another British-made telegraph machine was installed in Kabul later in 1920, and it remained functioning until 1932.

Afghanistan joined the International Telegraph Union (ITU) on April 12, 1928. The ITU was founded in 1865 and renamed the International Telecommunications Union in 1932.

In 1930, Marconi sold Kabul, Mazar, Herat, Khost, and Maymana seven telephone exchanges and a short-wave telegraph, which were installed in Kabul, Mazar, Herat, Khost, and Maymana. In 1933, a new system with higher-powered antennae was erected at Kabul's central telegraph facility. An automatic relay telephone switch with a capacity of 1,300 lines was purchased in 1949; nevertheless, the installation of this telephone switch was completed in 1950.

Another telephone switch was purchased from Siemens a few years later, in 1953. This telephone switch had a capacity of 5,000 lines, but it was active in 1957. The Ministry of Communication established telephone links connecting Kabul, Mazar, and Kandahar in 1959, with Siemens providing hardware support.

A switch with a capacity of 1,500 lines was imported from Czechoslovakia in 1961 and later installed in Kandahar. Meanwhile, Kabul was connected to Torkham and the southern portion of the country as a result of this transition.

Because the demand for telephone services was growing by the day, a network expansion plan was begun in Kabul in 1964. Meanwhile, 3,000 telephone lines were added to Shar-e-Naw, and another 3,000 lines were added to Sher Shah Mena; additionally, 5,000 telephone lines were added to Kabul City's center region, and 200 telephone lines were added to the Policharkhi neighborhood. The telephone network, on the other hand, was completely operational in 1969.

The first international call channel was established through Paris, and this link was established with the installation of the first international radio transceiver station in Kabul, which had a power of 20 KW, and with this station, Kabul was linked to Paris via radio, and then to the rest of the world.

Later in 1964, two receiving stations and a 10-kW radio transmitter were purchased from Philips in the Netherlands and deployed in Kabul with the goal of improving communications with Paris, London, Moscow, and New Delhi.

In 1973, a Second Telecommunication Initiative was established with technical assistance from the ITU in Kabul to expand the project. With the implementation of this project, three automated sub-city switches were installed in Microryan, Shar-i-Naw, and Khair Khana, resulting in the provision of an additional 13,200 new telephone lines in Kabul.

Basic telecommunication services, such as telegraph networks and wired telephones, were available throughout Afghanistan in the mid-1970s at the district level. Local residents, on the other hand, had limited access to these services; telecommunications systems were primarily used by government agencies.

Afghanistan has been a member of APT since 1979.

The telephone switches, known as Crossbars, were erected in the provincial cities of Parwan, Jalalabad, Sheberghan, Polikhomri, and Kunduz between 1983 and 1984.

War and socio-political concerns have damaged not only Afghanistan's infrastructures and wealth, but also its telecommunication infrastructures, throughout the last three decades (the 1980s, 1990s, and 2000). Telecommunications systems were generally destroyed and un-operational throughout the country due to a lack of proper maintenance and warfare.

Afghanistan gains new horizons of political and socio-economic rehabilitation and reconstruction after the interim government was constituted in 2001. Following that, when the new elected government was established through elections, new law was enacted, which aided private enterprises in making investments in the country and therefore providing various technology services to the Afghan people, including communications services.

The Ministry of Communications and Information Technology (MCIT) was the first government agency/political entity in Afghanistan to establish new strategies and policies that permitted and assisted the private sector to make large investments in the IT and telecommunications sectors. (MCIT, History of MCIT, 2017)

2.6.2 Some Achievements of MCIT in telecom and E-Governance sector

The Ministry of Communications and Information Technology (MCIT) claims that (MCIT), (MCIT, History of MCIT, 2017), since 2000 the Government of Afghanistan have made the following contributions to the sector of ICT:

- **Mobile phone Services**

(MCIT, History of MCIT, 2017) Stated: The Ministry of Communication and Information Technology (MCIT) had various effective strategies and plans from 2003 to the end of 2014, which helped the country reach 90% of residential areas with telecommunication and

information services. There are currently 23.21 million mobile phone customers in the country. Approximately 2,413,610,672.34 US dollars are invested in this sector.

In the ICT sector, 204,000 people were employed, including businesspeople, professionals, non-professionals, and telecommunications equipment sellers; also, annual revenue from the telecommunications sector was anticipated to be over $200 million.

- **Global Award of the GSM association**

The GSM Association awarded Afghanistan's Ministry of Communication and Information Technology the Global Leadership Award in 2011. The award was given because the ministry designed and effectively implemented policies, resulting in rapid improvements in the telecommunications sector and contributing to the country's goals of good governance.

- **Fiber Optic Network Development**

1st Phase:

- In length of 470 km the fiber optic network was extended to the southern provinces. SDH switches installed, and with the help of this the fiber optic project from Logar province to Ghazni got inaugurated.
- Switches installed and the connection project from Paktia to Paktika inaugurated.
- Switches installed and the connection project from Paktia to Ghazni inaugurated.
- With the help of installing of SDH switches, the fiber optic cable extended to Mohammad Agha district of Logar province.

2nd Phase:

- The fiber optic network was extended to the country's northeastern provinces, covering 1,000 kilometers and supported by the World Bank.
- OSP equipment was provided in 90% of cases.
- ISP Fiber optic equipment has arrived in Mahtab Qala and is being maintained.
- Khanabad and Taluqan HDS devices are installed at the Kalafgan site of Takhar province, Keshm and Faizabad districts of Badakhshan; these devices connect Kunduz to Taluqan and Khanabad to Kunduz province.

- Fiber optic cable piping and excavating have been completed as detailed below:
    - Charikar to Shinwari locations take about 29 minutes.
    - Shinwari to Siagird is 5 kilometers away.
    - Shiber to Shikhabad is 24.5 kilometers.
    - Bamyan to Shiber is 23.5 kilometers.
    - The distance between Bamyan and Yakoulang is 48 kilometers.
    - The distance between Yakoulang and Panjab is 12 kilometers.
    - The distance between Panjab and Warath is 4 kilometers.
    - Shahrestan is 1 km from Nili.
    - The distance between Kunduz and Takhar is 146 kilometers.
    - Aliabad to Khanabad is 32 kilometers.
    - The distance between Khanabad and Taluqan is 44 kilometers.
    - The distance between Taluqan and Kalafgaan is 47 kilometers.
    - From Kalafgaan to Kishm, it takes 19.7 hours.
    - Faizabad is 80 kilometers from Kishm.
- By the end of 1393, technical work such as cable digging and piping, fiberglass installation, and HDPE cable transmission for Taloqan, Kishm, Aliabad, and Khanabad had been accomplished.
- The Kabul Polytechnic University and seven provincial universities (Kunduz, Faryab, Jawzjan, Hirat, Baghlan, Samangan, and Parwan provinces) are connected to the National Fiber Optic network.

➢ **Afghan Telecom**

Afghan Telecom was the country's first public/government firm, founded in 2005, and it offers fixed line, mobile phone, and internet services. The company's total expenditures in 2014 were 4.06 billion AFN, and its revenue was 6.74 billion AFN.

➢ **Internet Services**

As below the Ministry of Communication and Information Technology (MCIT), (MCIT, History of MCIT, 2017) has stated the profile internet services:

- 51 internet provision licenses are issued to the internet companies.

- In major provinces of the country high-speed internet services of DSL have been activated.
- About 3 million people which are 10% of the population in the country got access to the internet services.
- In 2002, via satellite services the price for 1Mbps internet was 5,000 USD, but with the introduction of fiber optic network gradually such high price reduced to 67 USD for the GSM & ISPs operators.
- In 2012, the price of 1Mbps internet was announce 300 USD by the MCIT, however, recently MCIT announced the cost of 1Mbps internet for 67 USD, currently the price of 1Mbps internet is 67 USD.

➢ **3G And 4G Services**

In more than 25 provinces the 3G services are active, with the increase of coverage 3G users has been increased to 697.000. (MCIT, History of MCIT, 2017)

4G LTE is a term that combines two terms. Following 3G, 4G is the fourth generation of data technology for cellular networks. LTE stands for Long Term Evolution and is a technical term for a high-speed data transmission technology for phones, tablets, and other mobile devices. They combine to make 4G LTE the fastest 4G service currently available. (AWCC, 2017)

Officials from Afghanistan's Ministry of Telecommunication and Information Technology (MCIT) have stated that 4G internet services will be available soon. Officials further stated that around 90% of Afghans now have access to 3G services, with 50% having access to the internet. (Telecoma, 2016)

Afghanistan's Telecommunication and Information Technology Minister (Amirzai Sangin) revealed on Sunday that the government has received roughly $1.3 billion in revenue from the telecommunications sector over the last ten years. Sangin went on to say that the telecommunications industry employs roughly 140,000 people across the country.

During the last 10 years, the Afghan government has seen the development of the telecommunications sector as one of the most significant achievements, allowing Afghans to

access a variety of modern services. Afghanistan's citizens now have direct access to the financial system and may even purchase airline tickets using their mobile phones. (Telecoma, 2016)

Ariana News a news source in Afghanistan stated that: 4G internet services are opened for the first time by Afghan Wireless Communication Company (AWCC); AWCC is the nation’s largest provider of telecommunication services. In April 2002 the company launched Afghanistan’s first wireless communication services. (News, Ariana, 2017)

With 4G download speed is four to five times faster than 3G networks. And the users can access internet wherever there is coverage but the device needs to be 4G-enabled. (AWCC, 2017)

Afghanistan Minister of Communication and Technology, Najibullah Azizi called the 4G internet service offered by AWCC an effective step for the growth of economic. “with the activation of 4G internet services we once again took an important step in terms of infrastructural development and service development.” (News, Ariana, 2017)

Khaama Press another news agency on (Tue May 09 2017, 8:26 pm) says:

Roshan Telecommunications, an Afghan telecommunications company, stated on Tuesday that it will shortly deploy fourth-generation (4G) internet services in Afghanistan. "Roshan has already invested over $100 million in its 3G network since beginning services in 2013," according to a statement from Roshan Telecom. "This reaffirms the company's commitment to providing its consumers with the finest data service experience."

The debut of 4G services will allow Roshan to provide an enhanced-quality mobile broadband experience through its powerful network, allowing customers to access data-intensive applications, video streaming, and other innovative and high-definition services at the fastest possible speeds. (PRESS, KHAAMA, 2017)

- **The Information Communication Technology Institute (ICTI)**

MCIT previously operated a Telecommunication Training Center (TTC), which has since been upgraded to a degree-granting institution known as the Information and Communication Technology Institute (ICTI). ICTI educates engineers for the telecommunications and information technology industries. This Institute has graduated 194 students in the last four batches. Fortunately, the majority of these graduates have found work in their respective sectors. (MCIT, History of MCIT, 2017)

- **Postal Services**

(MCIT, History of MCIT, 2017) Stated as:

- There are 464 operating Post Offices across the country.
- In addition to the national/government postal services, seven private enterprises have been granted postal service licenses.
- Afghanistan Postal Regulatory Authority (APRA) was established to regulate and control the organizations that provide postal services in the country.
- A total of 461 post boxes have been issued to the general public.

- **Afghanistan Telecommunication Regulatory Authority (ATRA)**

In June, 2006 the ATRA was established the main objective of establishing this organization was to control and monitor the services of telecommunication companies. For legalizing the activities of IT based, and telecommunication companies, ATRA is issuing licenses to these companies. In the meantime, ATRA pursues firms and individuals who abuse telecommunications services. (MCIT, History of MCIT, 2017)

Furthermore, ATRA is in charge of monitoring and controlling the immoral use of internet services provided by internet companies and internet clubs throughout the country. To control and monitor the transmission of telephone and tower presidency, ATRA has installed 9 billboards and 35 communication antennas in the prisoner's directorate's six towers. (MCIT, History of MCIT, 2017)

Additionally, ATRA has been awarding licenses to organizations that provide radio and television services related to the country's media sector. There are currently 68 television channels operating in the country, with 35 in the capital and 33 in the provinces. In the country, there are 174 radio stations, with 47 in the capital and 127 in the provinces. (MCIT, History of MCIT, 2017)

For more detail information about ATRA, you can visit the following websites: http://atra.gov.af/en/page/6963/6966/7047 and http://atra.gov.af/en/page/6963/6966/7046 (MCIT, History of MCIT, 2017)

- **Coverage Area**

According to MCIT, 89 percent of the country's residential regions are currently covered. With the support of the Telecommunication Development Fund, they hope to reach 95 percent of the country by the end of 1394. (TDF). The TDF fund was created to help enhance telecommunications services in rural and village areas. The Telecommunication Development Fund is funded by telecommunication firms, who contribute 2.5 percent of their earnings to the Telecommunication Development Fund (TDF). According to the government, the TDF is now accessible in the amount of 74 million US dollars. (MCIT, History of MCIT, 2017)

More than 55 venues are expected to receive the services, which will be sponsored by TDF, during the following two years. Hundreds of additional sites are expected to be built with the support of this fund in the near future, with the primary goal of bringing telecom and internet services to remote locations. They plan to put all distant locations under the reach of communications services within the next three years. (MCIT, History of MCIT, 2017)

- **Electronic Tazkera (Electronic Identity (ID) Card)**

Electronic Tazkera, also known as an ID card, is a non-falsifiable document that aids in the reduction or elimination of corruption. E-ID cards will be highly significant for the election, and they may help to ensure electoral transparency.

For providing Electronic Tazkera or Electronic ID card, following steps are taken:

- MCIT and Ministries of Interior Affaires (MoI) have made an agreement and the cabinet of Afghanistan also approved it.
- MCIT will provide technical support of Electronic National ID (e-NID) project to MoI).
- Ministry of Interior Affairs (MoI) will be the implementer of this project.
- To provide e-NID advanced technology will be used.

(MCIT, History of MCIT, 2017).

- **Electronic Government**

Ministry of CIT, Afghanistan (MCIT, History of MCIT, 2017) says: E-Government aim is to improve live level of the people, provide better services, and establish strong, efficient and transparent government. The following aspects of E-government will be very important for the government of Afghanistan:

- ICT policies establishment
- E-health
- E- Learning
- Digital, or Information Technology programs for farmers.
- A development policy for the information technology industry
- Strategies for Mobile governance, and e- Government
- A strategy and a policy for cyber security
- Law for e- information and e- Signature
- Law for information technology and communication, and cyber-crime
- Afghanistan National Data Center (ANDC).
- Designing and studying e-addressing system of Kabul city
- HOSA – government service platform through mobile
- 30 e – services through mobile
- DEWAE- innovation and Afghanistan – Tech Time (Gazette)
- A resource center for E – Governance
- Administration of website system of public organizations
- Programs for capacity building in ICT
- ICT in hospitals, ICT in schools, ICT in Towns

- AfgREN Afghanistan Research Education Network
- af Afghanistan’s internet code and Afghanistan Portal
- Afghanistan’s cyber security center and rapid response cyber team
- PKI e- signature and Internet trading center
- IT training centers in provinces, Innovation center for young entrepreneurs in IT sector
- Creating e-ID system.

➢ **Planned Activities by IT Department**

- Strengthening software industry by creating software affirmation and standard offices.
- For e-commerce services, creating by contract market (BPO)
- Creating a support center for supporting Afghanistan National Data Center
- Establishing ICT skills training centers as per the market need.
- For studying cybercrimes, creating criminal technic laboratories.
- Training 200 government employees on cyber security, and e-government.
- E- signature services launching.
- IT industry Exhibitions creating.
- e- ID project launching.
- For vehicle registration, and driving licenses creating an MIS.

➢ **Digital Televisions**

MCIT has a plan to set up a digital television network across the country. Digital television programming are already being broadcast in Kabul's capital, with plans to expand to all provinces over the following three years.

➢ **Satellite**

- Afghanistan has launched a satellite with the name of (Afghan Sat 1), they have allocated a specific slot in the orbit which can be used to place a satellite.
- The MCIT plan is to lease that slot, so that companies can place satellite in that location, this attempt is to provide nationwide coverage.
- Eutelsat Company was awarded the contract, and the MCIT has signed the contract with them.
- The Afghan Satellite which is named Afghan sat one is installed and it is already in use.

(MCIT, Telecom's Sector Recent Achivements, 2017)

2.6.3 Some E-governance Initiatives by Local governance of Afghanistan

Independent Directorate of Local Governance (IDLG) is a local governance leading organization of Afghanistan, IDLG has significant contributions in E-governance sector throughout the local governance agencies of Afghanistan, as they have stated in their newsletter:

Promoting E-Governance in Provinces E-governance is one of the most efficient way to administer organizations. For better administration of provincial activities, to be connected to the center (Kabul) they need a secure network. E-governance is also aimed at assuring secure and timely information flow between Kabul and provincial administrations.

As a result, the Information and Communication Technology (ICT) Directorate of IDLG has launched a standard ICT network project for provincial governors' offices (PGOs.) The Embassy of Japan through UNDP's Afghanistan Subnational Governance Program funds the project. The standard ICT network project covered 13 PGOs (namely; Parwan, Wardak, Nangarhar, Sarepul, Balkh, Samangan, Takhar, Badakhshan, Nimroz, Badghes, Ghor, Daikundi and Laghman). In addition, the funding has also been extended to provincial councils (PCs) of the same provinces. ICT directorate will purchase 70 sets of computers, printers and Universal Power Supplies for the 13 PCs.

The overall cost of the project is $ 75,000; of the total amount $ 2,76000 is allocated to PGOs and the rest of $99,000 is allocated to PCs. Standard ICT network project will be implemented under close supervision of IDLG's ICT Directorate.

The project is aimed at utilizing the existing internet of PGOs so that all staff of PGOs could have access to it, secure their data, share ICT equipment's via a secure network and pave the way for upcoming new technologies. (IDLG, 2013)

2.7 Impact of Using E-Government Tools

Talking about the impacts of using E-Government tools, in many developing as well as developed countries it is proved that the usage of these tools has immense impact on several sectors/areas of a government operations. Talking about these impacts in local governance, there is no doubt that local governance is not an exception rather it is more beneficial to use electronic means/systems to reach out to the local people, and deliver the government services with less cost, less time and easy ways.

2.8 Development of Research Hypotheses

Following research, Hypotheses are formulated to find out government employees understanding of E-governance at local governance level and investigate the belief of them on implications of E-governance for bringing good governance, and or to understand that how much E-governance can contribute to the betterment of local governance.

1. First Hypothesis: ICT Facilities for the employees and their basic knowledge and abilities of using those facilities.

   Null hypothesis (*H0*): the government employees does not have basic ICT facilities and knowledge of using it.

   Alternative hypothesis (*H1*): the government employees have basic ICT facilities and knowledge of using it.

2. Second Hypothesis: E-governance understanding level of local government employees.

   Null hypothesis (*H0*): the government employees have no understanding of E-governance.

   Alternative hypothesis (*H1*): the government employees know about E-governance.

3. Third Hypothesis: Impacts of E-governance on betterment of local governance.

   Null hypothesis (*H0*): the government employees believe that E-governance has no impact in term of achieving good governance, citizen centric and better service delivery and modernizing the governance at local level.

Alternative hypothesis (*H1*): the government employees believe that E-governance has direct impact in achieving good governance, citizen centric and better service delivery and modernizing the governance at local level.

Chapter 3

Research Methodology

Research methodology is the process of solving a research problem in a systematic way. Research methodology is a science that studies how scientific research is carried out. Various steps used by the researcher to examine the research problem, as well as the logic behind them, are studied in research methodology. (KOTHARI, 2004). This chapter discusses the data collection procedures and processes, as well as the logic behind the study region selection.

This study employs both quantitative and qualitative methodologies; also, it is a descriptive study that discusses the impact of E-Government on improving local administration in Afghanistan. This study employs both qualitative and quantitative methodologies.

3.1 Research Design

The research design is a conceptual framework for doing and carrying out research; it establishes the framework for data measurement, gathering, and analysis. From drafting the hypothesis and its operational implications to the final data analysis, the design consists of a description of what the researcher will perform. To put it another way, the research will be designed to find answers to the following question:

I. What is the study or research about?
II. Why is the study or research being made?
III. What will be the study area, where will be the study carried out?
IV. What type of data is required?
V. From where the required data can be found?
VI. What time periods will be included in the study?
VII. What will be the sample design?
VIII. What will be the techniques used for data collection?
IX. How the data will be analyzed?
X. What will be the style of report preparation?

(KOTHARI, 2004)

The following chart presents the overview of the research (Figure 3).

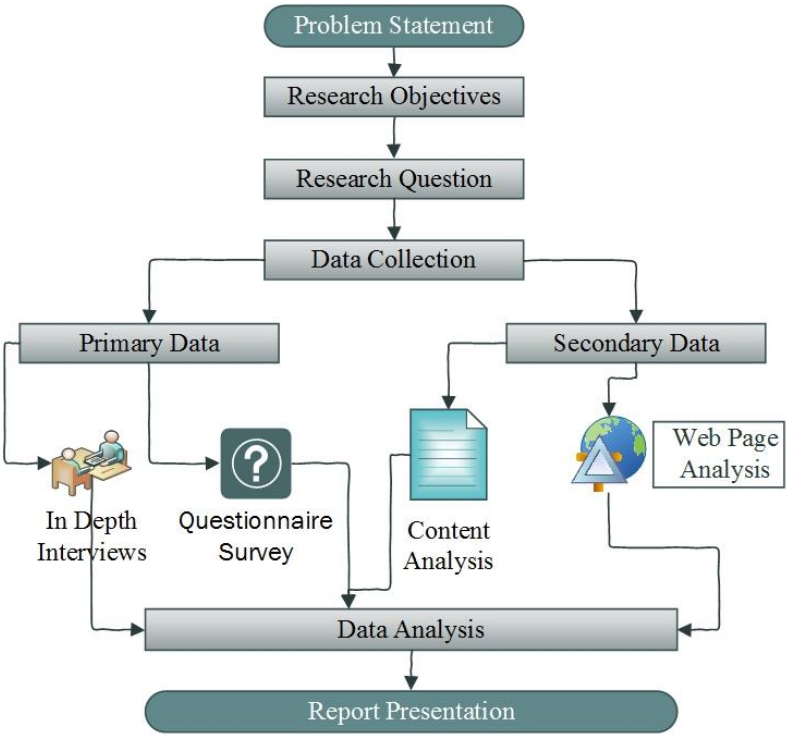

Figure 3: Overview of The Research Design and Its Components

3.2 Research Area

The Independent Directorate of Local Governance (IDLG) is the central body responsible for supporting, managing and overseeing local government in Afghanistan. IDLG is mandated to manage the affairs of Provincial Governor Offices (PGOs), District Governor Offices (DGOs), Municipalities (except Kabul Municipality) and Provincial Councils. The key role of IDLG is to create, support and strengthen the enabling environment for local governance in Afghanistan. On the one hand, the enabling environment in this context consists of the right national level policy and legal framework for local governance. On the other hand, it relates to creating the right governmental structures, and working environment of local governance, and a local governance, which will be efficient, effective, accountable, cost effective and easily accessible.

In this research, IDLG is selected to study and see the effect of E-governance throughout its subordinate above mentioned local governance agencies. In following Figure 4, you can see the local governance and its reporting system of Afghanistan.

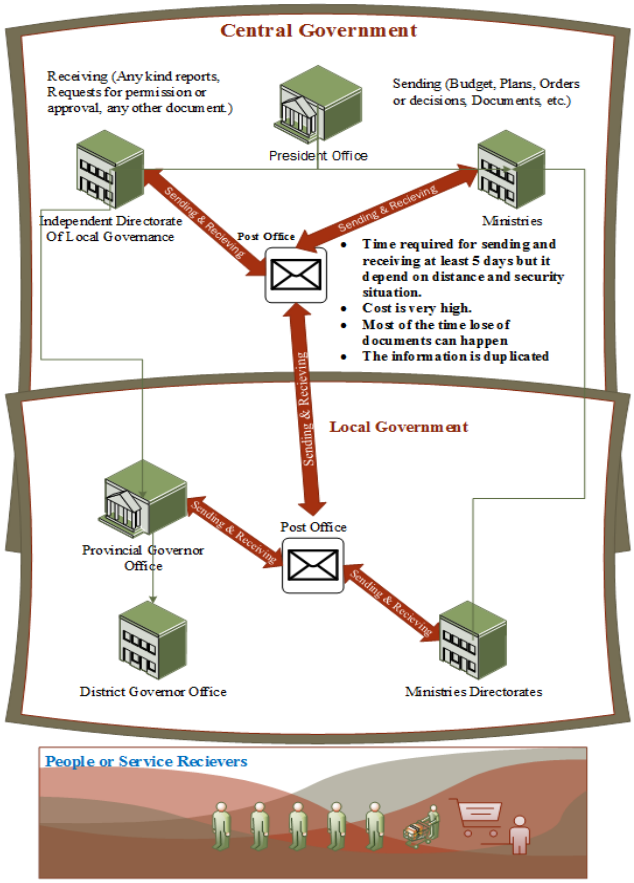

Figure 4: Afghanistan Local governance system

3.3 Sampling Design

A sample design is a method for selecting a representative sample from a population. It refers to the method or procedure used by the researcher to select items for the sample. (KOTHARI, 2004). The universe type for this study was infinite; the sampling unit was individuals, and the research sample size was 100 (N=100).

In this study, I utilized a purposive sample method; respondents were picked from IDLG central and certain provinces, and I chose them based on their experience working with Afghan local

governance and their degree of comprehension of the themes as well as the challenges that local governance faces.

3.4 Collection of the Data

For collecting primary and secondary data different data collection methods were used in this research. For the collection of primary data, I have used observation method, interview method, structured questionnaires, and content analysis.

The secondary data was collected from the analysis of different research articles, text books, web pages, and other methods, the data was collected through emails, face to face meetings and likewise.

3.5 Data Processing

The data were tallied, modified, and structured according to the study's goal to make data analysis easier. Predetermined variables were used to organize the data. The age, sex, education level, position, and other characteristics of the respondents were categorized using qualitative classification methods.

3.6 Data Analysis

The data analysis has been done by using SPSS (Version 25) and Microsoft Excel applications. Simple and suitable mathematical and statistical tools such as tables, charts, graphs, and other similar tools are used for data analysis, and deriving the result.

3.6.1 Measuring Qualifications, and Available Facilities

The successful implementation and usage of E-Governance and electronic systems need expert knowledge, and technical staff, and it also need the right infrastructure and facilities. When it comes to the third world and developing countries like Afghanistan, the availability of resources is a big question, especially the modern and technological resources availability

which are also expensive are at its highest scarcity. “In developing countries, the technology will be a bottleneck for e-governance. Technological challenges consist of hardware, software, telecom, infrastructure, maintenance, IT skilled people, security and safety issues” (Tele Community, 2012).

This research has also measured those resources and employee’s technical capacity which are very vital for the implementation of E-Governance at local governance of Afghanistan.

3.6.2 Measuring Knowledge about E-Governance

Information and communication technologies are being used by government organizations to improve the effectiveness and efficiency of service delivery; however, most government executives and civil servants are unaware of the broader scope and applications of E-Government, as well as the policies and procedures in place at the national level. This research has collected primary data from local government employees through comprehensive questionnaires and well-structured interviews in order to understand the knowledge/understanding of government executives and civil servants about E-Governance and the intention of using Information and Communication Technologies by government organizations.

Furthermore, the preparedness of implementing E-Governance at the local government level, as well as the impediments/barriers to e-governance readiness, were determined in this study.

3.6.3 Measuring Impacts of E-Governance

Around the world, the public sector is incorporating Information and Communication Technologies (ICTs) into its daily operations. Numerous revolutionary developments in government procedures, activities, and policies have happened as a result of this expanded use of technological systems and tools. E-Government is utilized not just to provide services to

citizens, but also to improve the efficiency, accountability, and openness of government processes. It is also particularly successful at lowering the expenses of public administration.

In fact, the ultimate goal of implementing E-Government is identical to the motto of good governance, which is to provide efficient and cost-effective public services to residents.

As a result, we can conclude that e-government is an effective tool for achieving good governance, as evidenced by many countries around the world, particularly those working on public administration reform, attempting to create a more proactive, efficient, transparent, and service-oriented government. (MADZOVA, 2013)

The effects of E-Government on Reduction of Corruption, Amount of Clarity, Efficiency of Services, Effectiveness of Service Delivery, Level of Convenience, Accessibility, Altitude of Interaction, Modernizing Governance, Good Governance, Democracy, and Citizen Centricity are all evaluated in this study.

Chapter 4

Findings and Analysis

This chapter covers the findings of the research, which were produced from data analysis utilizing both quantitative and qualitative research approaches. The study looked at the impact of e-government on improving local administration in Afghanistan. The methodologies employed in this study are content analysis, questionnaire survey, informal interview, and webpage survey.

4.1 Demographic Profiles: Descriptive Statistics

The research was carried out for one year, from October 2016 to October 2017. The purpose of descriptive statistics was to synthesize data obtained from the Independent Directorate of Local Governance (IDLG) sample target population and some provincial governor offices (PGOs). A total of 100 people from the IDLG's central office and some Afghan PGOs took part in the survey. The demographic profiles of the respondents are shown in the table below.

Age aggregated data		
Age groups	**Percent %**	
Below 25 years	12	
25-30 years	47	
31-35 years	17	
36-40 years	10	
41-45 years	10	
46-50 years	2	
More than 50 years	2	
Sex aggregated data		
Sex	**Frequency**	**Percent %**
Male	68	68.0
Female	32	32.0
Total	100	100.0

Table 2: Demographic profile of the respondents

Participants answers to some basic research questions:

The below tables explain the respondents' answers to different questions which were part of the research questionnaire; for finding out the detail answers of the respondents to each question, you can refer the annex part of this document.

4.2 Qualifications, and Available ICT Facilities: Findings and Analysis:

When it comes to third world/developing countries like Afghanistan, mostly they have challenges in the availability of very basic ICT resources/facilities and skills, which is creating lots of problems in implementation of any E-Governance system, and when it comes to the field level offices or local governance agencies this problem is more represented. Therefore, the questions in this part of the questionnaire were designed to find out the current basic knowledge of local governance staff in the field of information technology, and also find out the available basic facilities which are necessary for the successful implementation of E-Governance. As the tables below explain most of the participants of the survey/local governance employees have basic skills/knowledge of using computers, and some of them also have formal certifications of ICT, moreover, they also have access to some basic facilities which are very necessary for running the E-Governance systems, such as access to electricity, computer, and the internet. So, this gives as the proof the local governance of Afghanistan has the basic infrastructure and resources for implementation of E-Governance systems.

4.2.1 Availability of ICT facilities

The questions in this part of the questionnaire were designed to see whether the local governance employees have some basic ICT facilities or not, such as: personal or official computer; internet connection at office; an e-mail address; electricity; meanwhile, the functionality of the existence computers and internet were also assessed. The answers to the questions stated in this part of the questionnaire shows that the basic ICT facilities are available

at the local governance agencies of Afghanistan, because most of the respondents positively answered the questions in this part of the questionnaire.

4.2.2 Skills of computer usage

The questions in this part of the questionnaire were designed to examine the computer skills/capabilities of the respondents. The questions and their replies stated in this part of the questionnaire shows that the local governance employees have basic skills of computer and internet usage, moreover, some of them also have formal ICT certifications. Most of the respondents positively answered the questions at this part of questionnaire, which means the local governance are equipped with the basic skills of computer usage; however, they will need advance trainings in the field of ICT and E-Governance.

4.2.3 Computers and facilities usual usage

In this part of the research the respondents were asked about the usual usage of their computer facilities; the intent was to see what the employees usually do with their computers, and for how long do they use it. Moreover, it was assessed that how much do the employees are engaged with social media, for how long do they use compute facilities officially, and for how long do they use it personally; and for how long do they use the internet facilities and the official email services.

It was found that the employees mostly use internet services; most of them are using social media websites; and they mostly use their computers for their official activities and sometime for their personal work, this shows that the attitude of the employees towards the usage of computers, internet and other office facilities are good, and they are not miss using the facilities.

4.3 Knowledge about E-Governance: Findings and Analysis

As it is very important for the employees to have basic knowledge about the E-Governance, and its' initiatives prior to implementing it, therefore, this part of the research was aimed to

find out that how much the local governance employees are aware about some basic initiatives and concepts in this sector. They were asked that: how much do they know about the concept of E-Governance, if their office have any official web presence, about national ICT policies, about the awareness that the government has created official websites for every provincial governor officer, and they were asked that whether the E-mail communications are initiated for speedy communication or not.

Most of the questions were designed to find out the awareness of the respondents in the mentioned areas, as a result it was found that local governance employees are aware of these basic initiatives, however, further and wider awareness is needed to be initiated.

4.4 E-Governance Implementation readiness and barriers

Although it has been established that ICTs and E-Government in general are significant drivers of growth and wealth creation, there are numerous obstacles that obstruct the investigation and exploitation of these prospects. Because of the complexity and multidimensionality of E-Government programs, a wide range of obstacles and hurdles to implementation and administration are likely to occur. The primary problems highlighted in the case study analysis for E-Government development and implementation in underdeveloped countries are depicted in Figure 5. (Ndou, E – GOVERNMENT FOR DEVELOPING COUNTRIES: OPPORTUNITIES AND CHALLENGES, 2004)

1. ICT infrastructure *(computer literacy, e-readiness, telecommunication equipment)*
2. Policy issues (legislation)
3. Human capital development and lifelong learning *(skills, education, capabilities, learning)*
4. Change management *(culture, resistance to change)*
5. Partnership and collaboration *(public/private partnership, community and networkcreation)*
6. Strategy *(vision, mission)*
7. Leadership role *(motivate, influence, involve, support)*

Figure 5: E-Government Challenges

In this part of the research the E-Governance readiness at local governance agencies and the barriers of this sector were assessed, the were asked that: how much they believe their office is ready for E-Governance implementation, further they were asked about the barriers of E-Governance implementation they were asked about: Human capital, a lack of infrastructure and logistics, a lack of policy and regulatory framework, a lack of accurate perception, a lack of privacy and security, and a shortage of electricity are all issues that need to be addressed.

The majority of respondents stated that their offices are prepared to deploy E-Government. Furthermore, they feel that all of the aforementioned areas can be a barrier to the successful implementation of E-Government, which implies that they are aware of the potential barriers and can support and assist in their removal.

4.4.1 Prerequisites for E-Governance Implementation

As part of checking the readiness for E-Governance implementation it is also important to see what are the other prerequisites or prior needs to successfully start implementation of E-Governance, therefore in this research different questions are asked to check what the respondents' thinks are needed for the starting implementation E-Governance, the respondents were asked that whether:

- Organizational changes & collaborations among local and central public agencies are necessary for E-Governance.
- Innovations and changes in local government's working processes & procedures is a demand.
- Preparing the government employees at local and central level is vital for introducing E-Governance.
- An appropriate regulatory environment is prior to introduce e-governance.
- Making available of adequate technology on its own cannot suffice to E-Governance implementation.
- Public-private partnerships & collaboration with others is important to introduce E-Governance especially at local level.

The respondents' answers were mostly positive, which means that they have the understanding about the prerequisites of E-Governance implementation.

4.5 Impacts of E-Governance on service delivery: Findings and Analysis

The United Nations Division of Public Administration and Public Economics, in collaboration with the American Society for Public Administration, conducted a global study of e-government (Benchmarking e-government: a Global Perspective, 2002). "e-government is about opportunity to transform a public sector organization's commitment in order to function it as citizen- centric. It is seen as an opportunity to deliver cost effective, and opportunity to enhance governance through improved access to accurate information and responsive, transparent and democratic institutions." (Tsekos, 2002) "E-Governance makes working of the government more efficient, responsive and transparent." (Hanumanthappa, 2015)

As the E-Governance implementation has vital impact on different aspects of service delivery, in this part of the research it was assessed that whether E-Governance can contribute to the efficiency, effectiveness, transparency, costs, accountability, can support quality decision making, reduce corruption, reduce isolation, keeps citizens informed, enhance citizens participation, increase convenience, and can reduce social, political, geographical & legal discrimination or not?

The questions were multiple choice, and the respondents had to choose one of the options (strongly disagree, disagree, not sure, agree, and strongly agree). The majority of the respondents' responses to these questions were positive, with the highest percentage of respondents responding that they strongly agree that E-Government can improve efficiency and transparency.

Chapter 5

Conclusion

The conclusion of the research will be presented in this chapter, which is the last chapter of the research report. It includes a full description of the research, as well as a Framework for E-Governance to Achieve Good Governance in Local Government and a Model for E-Service Delivery in Afghanistan's Local Government. Furthermore, it provides a brief path for future research.

5.1 Summary of the Research

Several studies, papers, and organizations around the world have demonstrated that E-Governance is a critical factor for transformational improvement in governance and service delivery quality, efficiency, and effectiveness. It is also commonly known that practically all governments throughout the world are transitioning from traditional administrative activities to E-Government apps in order to fulfill growing customer expectations.

ICT is a tool that can be employed in every activity and in the delivery of any service. Transparency, Consensus Orientation, Equity Building, Effectiveness & Efficiency, Accountability, and Participatory Governance are all characteristics of good governance. As a result, the use of ICT in governance encourages all aspects of good governance. E-Government is the application of information and communication technologies to government and public administration procedures in order to achieve all aspects of good governance. As a result, we can claim that E-Governance is critical to attaining good governance in developing nations like Afghanistan, where it is critical to reduce corruption and offer efficient, effective, and high-quality services to their inhabitants.

E-Governance enables real-time engagement in governmental and democratic processes. E-government improves service quality, promotes better policy outcomes, and increases citizen

engagement. These could include online information and services that improve democratic accountability, participation, transparency, and service quality and speed.

Even though the Afghan government has taken certain steps in the previous several years to use information technology as a tool in government operations in order to provide better services to citizens, However, these projects are not successful in all parts of Afghanistan, particularly in local governance agencies, where they are less effective/successful. To establish E-Government in Afghanistan's local governing bodies, a vision is required. To achieve the objective, the issues identified in this study, as well as additional obstacles to E-Government adoption, must be overcome. The atmosphere must then be created in order for E-Government to be implemented effectively. It is worth noting that citizen participation can be critical in the implementation of E-Government in Afghanistan.

The strategic goal of e-government, as demonstrated, is to promote and simplify governance for all parties involved, including government, citizens, and enterprises. The main goal of this research was to see how E-Government may help improve local governance in Afghanistan. Three objectives have been identified as a result of the core objective to promote. The study found that E-Government can efficiently deliver services, that e-service delivery improves public happiness, and that the e-governance project leads to good governance promises. Finally, the research found that e-government paves the road for good governance. The current study also supported the research hypothesis listed in the table below.

No	Hypothesis	Objective	Outcome
1	ICT Facilities for the employees and their basic knowledge and abilities of using those facilities	The government employees have basic ICT facilities and knowledge of using it	Accepted
2	E-Governance understanding level of local government employees	The government employees know about E-Governance	Accepted

3	Impacts of E-Governance on betterment of local governance	The government employees believe that E-Governance has direct impact in achieving good governance, citizen centric and better service delivery and modernizing the governance at local level	Accepted

Table 3: Research hypothesis outcomes summary

According to the findings of this study, E-Governance is the key to ensuring good governance in Afghanistan's local government, as it allows for the reduction of corruption, the delivery of efficient and effective services, and the assurance of transparency through the easy accessibility and greater convenience of the people. Local government agencies have taken some steps toward implementing E-Government, but they are insufficient; further systems must be built, and existing systems must be enhanced.

As this research looked for and assessed the perceptions of local governance employees, about different aspects which contribute to the successful implementation of the E-Governance systems in local governance agencies of Afghanistan, and tried to found the perception of the employees about the impacts of E-Governance on betterment of local governance. As a result of this study, the following results obtained:

5.1.1 The present technological status

The research revealed that the most essential infrastructure and facilities are available for the successful implementation of the E-Governance systems, however there are still some challenges and obstacles on the way, there is lack of sources for providing reliable power/electricity services; all the employees are not well trained on the usage of ICT and E-Government tools; there is some lack of perception about the implementation of E-Governance systems.

5.1.2 The present practices

It was found that advance information systems are not available at local governance, and it is needed to develop advance and functional information and E-Governance systems. Presently most of the employees are using their computers, internet and other ICT facilities for basic activities, and they are engaged with basic computer programs such as Microsoft office packages, private email usage, and others.

5.1.3 The perception about regulatory environment

It was found that some initial documents and policies are developed for supporting the implementation of E-Governance systems, however, there is need for the processes re-engineering and developing further policies and regulations in this sector.

5.1.4 The present aptitude and attitude of the officials

Very positive thing which was found as a result of this research was that the local governance employees/officials' attitude is very much positive towards implementation of E-Governance systems, and they believe that these systems can bring much improvements in the local governance of Afghanistan, and it can pave the way for achieving the ultimate and vital goal of good governance through and with the implementation of E-Governance systems.

5.2 Proposed Framework of E-Governance to Good Governance

"Richard Heeks (2001) studied the effect of new information and communication technologies and how it can make a significant contribution to the achievement of good governance goals. He outlined the three main contributions of e-governance: improving government processes (e-administration); connecting citizens (e-citizens and e-services); and building external interactions (e-society). Case studies are used to show that e-governance is a current, not just future, reality for developing countries. However, most e-governance initiatives fail. Countries therefore face two challenges. First, the strategic challenge of e-readiness: preparing six identified pre-conditions for e-governance i.e., Data Systems Infrastructure, Legal

Infrastructure, Institutional Infrastructure Ready, Human Infrastructure, Technological Infrastructure, and Leadership and Strategic Thinking. Second, the tactical challenge of closing design-reality gaps: adopting best practice in e-governance projects in order to avoid failure and to achieve success" (Bala, 2016)

E-governance is a medium via which government bodies can readily communicate with citizens (e-services), improve public service delivery and processes (e-administration), and foster external relationships (e- society). This results in a win-win situation in which the government's task is made easier by putting a public service at the disposal of citizens. (Alshehri and Drew, 2010).

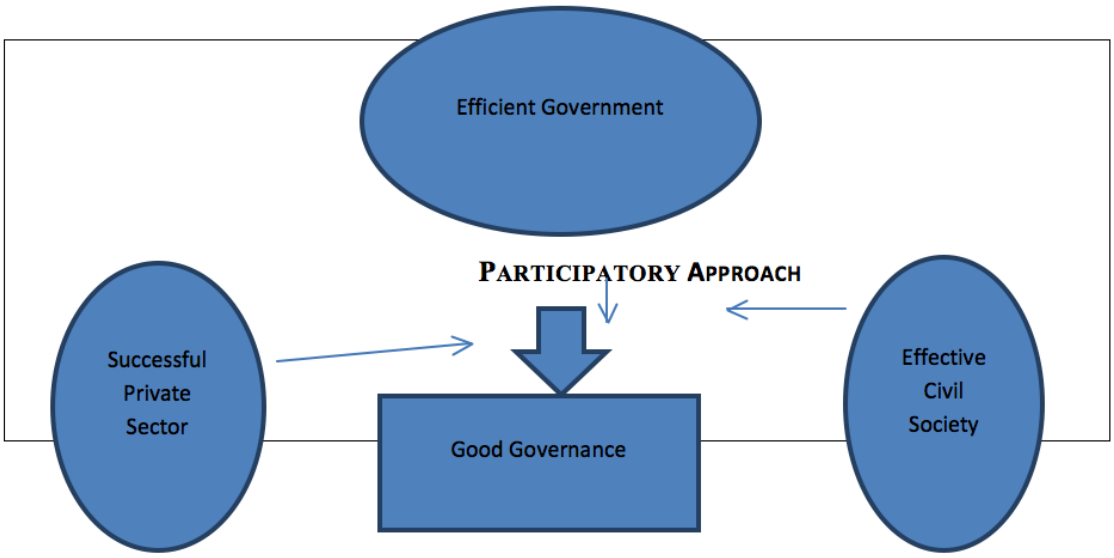

Figure 6: Ingredients for Good Governances as Put Forward by Misuraca (2007)

This study presented a four-dimensional E-Governance paradigm for Afghan local government agencies that is consistent with good governance. This model is based on the e-government operational plan as well as the actions that must be taken. The efficiency gained through the use of e-services is measured in terms of quality of service, choice and consultation, entrance and information, and value for money, all of which contribute to citizen satisfaction. Citizen satisfaction is measured in terms of corruption, clarity, efficiency, ease, and accessibility, all of which have a positive relationship with good governance promises. Accountability,

openness, responsiveness, rule of law, efficacy, and involvement, on the other hand, are all indicators of good governance.

Operational Strategy	Actions
Development	Network layer: Information infrastructure, servers, LANs, WANs, intranet, Internet
Deployment	Integration layer: Database development, e-mail, e-forms, e-portals, networked enabled system, legal boundaries, policy issues
Delegation	Management layer: skill development, business process re-engineering, demand-supply management
Dissemination	User application layer: G2G, G2C, C2G, G2B, B2G, G2NG, NG2G, G2O

Table 4: A proposed E-Government framework for local governance

5.3 Proposed Model of Public Service Delivery in Local Governance

The correct, convenient, easy, effective, and efficient delivery of services is critical for a modern government's survival. Citizens and organizations need access to government information in order for government to function effectively. As a result, e-service delivery demonstrates a government's readiness to provide services to its residents in the most efficient and effective manner feasible. Traditionally, these services were provided in person in a government office. Of course, this type of service, which is offered in cities, is not available in rural areas, where transportation is limited, roads are impassable, and government offices are rare.

Having this in mind this study is proposing below model for e-service delivery at local governance of Afghanistan.

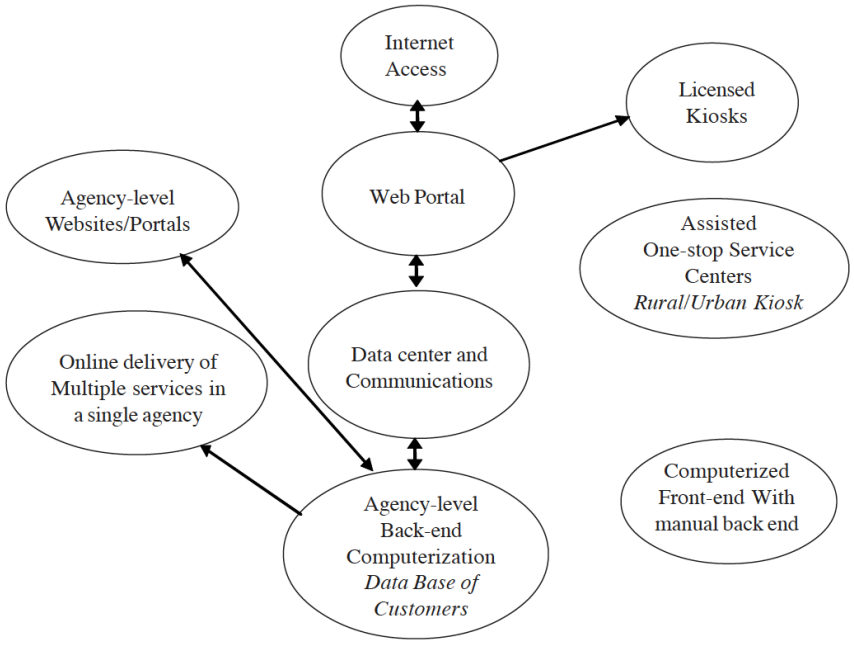

Figure 7: Proposed Model for E-Service Delivery at Local Governance

5.4 E-Governance Areas for Further Research

There are certain limitations to the research study that could lead to additional investigation. Apart from administrators and IT managers, the methodology might be expanded by conducting focus groups with citizen users. To determine whether this has occurred, the three e-governance focus areas (e-administration, e-services, and e-society) must be reviewed. This article examined the impact of e-governance readiness and comprehension among local government personnel on the success of E-Government, both of which are critical aspects to consider when implementing E-Government.

Further E-Governance study should concentrate on already accessible initiatives in E-Government implementation and their success in service delivery, as well as the best practices The emergence of E-Government, and with it, a shift in the governance landscape, necessitates a stronger engagement between many important entities in society. The focus should be on results rather than method when it comes to governance. Professionalism and fresh ways of

thinking are required to move forward in the direction of good governance. How efforts can maintain momentum and meet the burden of increasing expectations and demand; how governments can learn from each other and leapfrog; and how and whether citizens may influence the look of E-Government are all key questions for the future.

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Appendix A.

Tables which represent the research data:

Availability of ICT facilities:

1- Do you have any computer at home? (Desktop, Laptop, Tablet, etc.)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	20	20.0	20.0	20.0
	Yes	80	80.0	80.0	100.0
	Total	100	100.0	100.0	

Table 5: Computer at home

2- Do you have computer facilities at office?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	2	2.0	2.0	2.0
	Yes	98	98.0	98.0	100.0
	Total	100	100.0	100.0	

Table 6: Computer at office

3- How strong your computer specifications are, to carry your office work?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Average	21	21.0	21.0	21.0
	High	56	56.0	56.0	77.0
	Very high	23	23.0	23.0	100.0
	Total	100	100.0	100.0	

Table 7: Computer specifications

4- Do you have internet connection at office?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	100	100.0	100.0	100.0

Table 8: Internet at office

5- What is the speed of the internet connection at your office?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Low	4	4.0	4.0	4.0
	Moderate	26	26.0	26.0	30.0
	Normal	41	41.0	41.0	71.0
	High	29	29.0	29.0	100.0
	Total	100	100.0	100.0	

Table 9: Office internet speed

6- Do you have e-mail address?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	100	100.0	100.0	100.0

Table 10: Email availability

7- What is the overall power (electricity) situation at your workplace?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less sufficient	20	20.0	20.0	20.0
	Sufficient	55	55.0	55.0	75.0
	Very sufficient	25	25.0	25.0	100.0
	Total	100	100.0	100.0	

Table 11: Situation of electricity at office

Basic skills of computer usage:

8- Do you have basic skills of computer usage?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	100	100.0	100.0	100.0

Table 12: Basic skills of computer usage

9- Do you have any ICT Certificate?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	58	58.0	58.0	58.0
	Yes	42	42.0	42.0	100.0
	Total	100	100.0	100.0	

Table 13: Availability of ICT certificate

Usual usage of computers and other office facilities:

10- Are you using any social media website?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	15	15.0	15.0	15.0
	Yes	85	85.0	85.0	100.0
	Total	100	100.0	100.0	

Table 14: Social media usage

11- While I am in office, my official computer is operating with Internet:

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all	2	2.0	2.0	2.0
	Rarely	3	3.0	3.0	5.0
	Some Times With	16	16.0	16.0	21.0
	Mostly with	57	57.0	57.0	78.0
	Only With	22	22.0	22.0	100.0
	Total	100	100.0	100.0	

Table 15: Usage of internet

12- On average for how long do you use computer daily? (Officially)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1-2 hours	14	14.0	14.0	14.0
	Over 2 hours	86	86.0	86.0	100.0
	Total	100	100.0	100.0	

Table 16: Usage of computer officially

13- On average for how long do you use computer daily? (Private)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	30 Minutes>	15	15.0	15.0	15.0
	30 Minutes - 1h	18	18.0	18.0	33.0
	1-2 hours	43	43.0	43.0	76.0
	Over 2 hours	24	24.0	24.0	100.0

	Total	100	100.0	100.0	

Table 17: Usage of computer personally

14- For how long do you use the existing ICT facilities at your workplace?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Moderate	41	41.0	41.0	41.0
	Normal	39	39.0	39.0	80.0
	High	20	20.0	20.0	100.0
	Total	100	100.0	100.0	

Table 18: Duration of ICT facilities at office

15- How often do you use internet for your official activities?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Once in a day	8	8.0	8.0	8.0
	Several times a day	81	81.0	81.0	89.0
	4	11	11.0	11.0	100.0
	Total	100	100.0	100.0	

Table 19: Usage of internet officially

16- How often do you use your official e-mail for communication?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never	4	4.0	4.0	4.0
	Once in a week	5	5.0	5.0	9.0
	Once in a day	29	29.0	29.0	38.0
	Several times a day	62	62.0	62.0	100.0
	Total	100	100.0	100.0	

Table 20: Usage of official email

Knowledge of E-Governance concepts:

17- About the concept of E-Governance

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Aware	5	5.0	5.0	5.0

	Simply Heard	13	13.0	13.0	18.0
	Slightly Aware	16	16.0	16.0	34.0
	Aware	47	47.0	47.0	81.0
	Quite Aware	19	19.0	19.0	100.0
	Total	100	100.0	100.0	

Table 21: Concept of E-Governance

18- Does your office have any official website?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	4	4.0	4.0	4.0
	Yes	96	96.0	96.0	100.0
	Total	100	100.0	100.0	

Table 22: Official website

19- A National ICT Policy is in adoption now

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Aware	24	24.0	24.0	24.0
	Simply Heard	19	19.0	19.0	43.0
	Slightly Aware	26	26.0	26.0	69.0
	Aware	23	23.0	23.0	92.0
	Quite Aware	8	8.0	8.0	100.0
	Total	100	100.0	100.0	

Table 23: National IT Policy

20- Government has created official websites for every province

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Aware	19	19.0	19.0	19.0
	Simply Heard	8	8.0	8.0	27.0
	Slightly Aware	15	15.0	15.0	42.0
	Aware	40	40.0	40.0	82.0
	Quite Aware	18	18.0	18.0	100.0
	Total	100	100.0	100.0	

Table 24: PGOs Websites

21- For speedy communication government encourages e-mail correspondence

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Aware	5	5.0	5.0	5.0
	Simply Heard	9	9.0	9.0	14.0
	Slightly Aware	11	11.0	11.0	25.0
	Aware	33	33.0	33.0	58.0
	Quite Aware	42	42.0	42.0	100.0
	Total	100	100.0	100.0	

Table 25: E-mail Correspondence

Knowledge about E-Governance readiness and the barriers:

22- What is your evaluation about E-Governance readiness of your office?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Ready	19	19.0	19.0	19.0
	Partially ready	28	28.0	28.0	47.0
	Ready	27	27.0	27.0	74.0
	Fully ready	26	26.0	26.0	100.0
	Total	100	100.0	100.0	

Table 26: E-Governance Readiness

23- Is lack of human capital a barrier?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	29	29.0	29.0	29.0
	Yes	71	71.0	71.0	100.0
	Total	100	100.0	100.0	

Table 27: Barrier (lack of human capital)

24- Is lack of Infrastructure and logistics a barrier?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	33	33.0	33.0	33.0
	Yes	67	67.0	67.0	100.0
	Total	100	100.0	100.0	

25- Is insufficient policy and regulatory framework a barrier?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	32	32.0	32.0	32.0
	Yes	68	68.0	68.0	100.0
	Total	100	100.0	100.0	

Table 28: Barrier (policies and regulatory framework)

26- Is lack of proper perception a barrier?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	46	46.0	46.0	46.0
	Yes	54	54.0	54.0	100.0
	Total	100	100.0	100.0	

Table 29: Barrier (lack of proper perception)

27- Is lack of privacy and security a barrier?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	42	42.0	42.0	42.0
	Yes	58	58.0	58.0	100.0
	Total	100	100.0	100.0	

Table 30: Barrier (lack of privacy and security)

28- Is lack of electricity a barrier?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	47	47.0	47.0	47.0
	Yes	53	53.0	53.0	100.0
	Total	100	100.0	100.0	

Table 31: Barrier (lack of electricity)

Understanding about the prerequisites for E-Governance implementation:

29- Organizational changes & collaborations among local and central public agencies are necessary for E-Governance

	Frequency	Percent	Valid Percent	Cumulative Percent

Valid	Disagree	16	16.0	16.0	16.0
	Not Sure	25	25.0	25.0	41.0
	Agree	27	27.0	27.0	68.0
	Strongly Agree	32	32.0	32.0	100.0
	Total	100	100.0	100.0	

Table 32: Organizational changes & collaborations

30- E-Governance demands innovations and changes in local government's working processes & procedures

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Sure	10	10.0	10.0	10.0
	Agree	51	51.0	51.0	61.0
	Strongly Agree	39	39.0	39.0	100.0
	Total	100	100.0	100.0	

Table 33: Need of Innovations and changes for E-Governance

31- Preparing the government employees at local and central level is vital for introducing E-Governance

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	5	5.0	5.0	5.0
	Not Sure	10	10.0	10.0	15.0
	Agree	27	27.0	27.0	42.0
	Strongly Agree	58	58.0	58.0	100.0
	Total	100	100.0	100.0	

Table 34: Preparing the government employees

32- An appropriate regulatory environment is prior to introduce e-governance at local level

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	9	9.0	9.0	9.0
	Not Sure	23	23.0	23.0	32.0
	Agree	46	46.0	46.0	78.0
	Strongly Agree	22	22.0	22.0	100.0
	Total	100	100.0	100.0	

Table 35: Appropriate regulatory environment

33- Making available of adequate technology on its own cannot suffice to e-governance

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	22	22.0	22.0	22.0
	Not Sure	27	27.0	27.0	49.0
	Agree	37	37.0	37.0	86.0
	Strongly Agree	14	14.0	14.0	100.0
	Total	100	100.0	100.0	

Table 36: Availability of adequate technology

34- Public-private partnerships & collaboration with others is important to introduce e-governance especially at local level

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	23	23.0	23.0	23.0
	Not Sure	11	11.0	11.0	34.0
	Agree	37	37.0	37.0	71.0
	Strongly Agree	29	29.0	29.0	100.0
	Total	100	100.0	100.0	

Table 37: Public-private partnerships & collaboration

Impacts of E-Governance on service delivery:

35- Improve efficiency of local governance entities

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	4	4.0	4.0	4.0
	Disagree	4	4.0	4.0	8.0
	Not Sure	15	15.0	15.0	23.0
	Agree	23	23.0	23.0	46.0
	Strongly Agree	54	54.0	54.0	100.0
	Total	100	100.0	100.0	

Table 38: E-Governance improves efficiency

36- Improve effectiveness of local governance entities

	Frequency	Percent	Valid Percent	Cumulative Percent

Valid	Disagree	11	11.0	11.0	11.0
	Not Sure	24	24.0	24.0	35.0
	Agree	23	23.0	23.0	58.0
	Strongly Agree	42	42.0	42.0	100.0
	Total	100	100.0	100.0	

Table 39: E-Governance improves effectiveness

37- Support quality decision & policy making especially at local governance entities

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	9	9.0	9.0	9.0
	Not Sure	18	18.0	18.0	27.0
	Agree	38	38.0	38.0	65.0
	Strongly Agree	35	35.0	35.0	100.0
	Total	100	100.0	100.0	

Table 40: E-Governance support quality decision & policy making

38- Increase transparency in local governance entities

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	4	4.0	4.0	4.0
	Disagree	5	5.0	5.0	9.0
	Not Sure	6	6.0	6.0	15.0
	Agree	25	25.0	25.0	40.0
	Strongly Agree	60	60.0	60.0	100.0
	Total	100	100.0	100.0	

Table 41: E-Governance increase transparency

39- Reduce corruption in local governance entities

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	8	8.0	8.0	8.0
	Not Sure	15	15.0	15.0	23.0
	Agree	40	40.0	40.0	63.0
	Strongly Agree	37	37.0	37.0	100.0
	Total	100	100.0	100.0	

Table 42: E-Governance reduce corruption

40- Reduce costs for public services

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	12	12.0	12.0	12.0
	Not Sure	28	28.0	28.0	40.0
	Agree	23	23.0	23.0	63.0
	Strongly Agree	37	37.0	37.0	100.0
	Total	100	100.0	100.0	

Table 43: E-Governance reduce costs of service delivery

41- Enhance accountability & responsive of government

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	4	4.0	4.0	4.0
	Disagree	5	5.0	5.0	9.0
	Not Sure	6	6.0	6.0	15.0
	Agree	35	35.0	35.0	50.0
	Strongly Agree	50	50.0	50.0	100.0
	Total	100	100.0	100.0	

Table 44: E-Governance enhance accountability

42- Reduce isolation between government & citizen

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	4	4.0	4.0	4.0
	Disagree	5	5.0	5.0	9.0
	Not Sure	6	6.0	6.0	15.0
	Agree	44	44.0	44.0	59.0
	Strongly Agree	41	41.0	41.0	100.0
	Total	100	100.0	100.0	

Table 45: E-Governance reduce isolation

43- Keep citizens informed

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	9	9.0	9.0	9.0

	Not Sure	17	17.0	17.0	26.0
	Agree	36	36.0	36.0	62.0
	Strongly Agree	38	38.0	38.0	100.0
	Total	100	100.0	100.0	

Table 46: E-Governance keep citizens informed

44- Enhance citizens participation and feedback in public administration

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	13	13.0	13.0	13.0
	Not Sure	11	11.0	11.0	24.0
	Agree	34	34.0	34.0	58.0
	Strongly Agree	42	42.0	42.0	100.0
	Total	100	100.0	100.0	

Table 47: E-Governance enhance citizens participation

45- Increase convenience and choice for citizens in relation to delivering public services

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	4	4.0	4.0	4.0
	Disagree	14	14.0	14.0	18.0
	Not Sure	8	8.0	8.0	26.0
	Agree	44	44.0	44.0	70.0
	Strongly Agree	30	30.0	30.0	100.0
	Total	100	100.0	100.0	

Table 48: E-Governance increase convenience

46- Reduce social, political, geographical & legal discrimination

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	3	3.0	3.0	3.0
	Disagree	12	12.0	12.0	15.0
	Not Sure	29	29.0	29.0	44.0
	Agree	40	40.0	40.0	84.0
	Strongly Agree	16	16.0	16.0	100.0
	Total	100	100.0	100.0	

Table 49: E-Governance reduce social, political

47- What level of intermediary interference at local level will change by E-governance?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Less	12	12.0	12.0	12.0
	Less	18	18.0	18.0	30.0
	As Usual	6	6.0	6.0	36.0
	Much	28	28.0	28.0	64.0
	Very Much	36	36.0	36.0	100.0
	Total	100	100.0	100.0	

Table 50: Level of interference

48- What extent of corruption we can alter with usage of E-governance at local governance entities?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less	17	17.0	17.0	17.0
	As Usual	19	19.0	19.0	36.0
	Much	39	39.0	39.0	75.0
	Very Much	25	25.0	25.0	100.0
	Total	100	100.0	100.0	

Table 51: Alteration of corruption

49- What altitude of clarity can we achieve through the usage of E-gov?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less	23	23.0	23.0	23.0
	As Usual	8	8.0	8.0	31.0
	Much	31	31.0	31.0	62.0
	Very Much	38	38.0	38.0	100.0
	Total	100	100.0	100.0	

Table 52: Achievement of clarity

50- What elevation of transparency we can achieve through e-service delivery at local level?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less	4	4.0	4.0	4.0
	As Usual	25	25.0	25.0	29.0
	Much	26	26.0	26.0	55.0
	Very Much	45	45.0	45.0	100.0

	Total	100	100.0	100.0	

Table 53: Achievement of transparency

51- What level of efficient service delivery we can achieve through E-governance at local level?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less	9	9.0	9.0	9.0
	As Usual	12	12.0	12.0	21.0
	Much	49	49.0	49.0	70.0
	Very Much	30	30.0	30.0	100.0
	Total	100	100.0	100.0	

Table 54: Achievement of efficient service delivery

52- What extent the service delivery will be effective through E-Governance at local level?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Less	5	5.0	5.0	5.0
	Less	4	4.0	4.0	9.0
	As Usual	25	25.0	25.0	34.0
	Much	20	20.0	20.0	54.0
	Very Much	46	46.0	46.0	100.0
	Total	100	100.0	100.0	

Table 55: Service delivery through E-Governance

53- What extent it will be convenient for you to receive services through E-Governance at local level?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less	22	22.0	22.0	22.0
	As Usual	23	23.0	23.0	45.0
	Much	17	17.0	17.0	62.0
	Very Much	38	38.0	38.0	100.0
	Total	100	100.0	100.0	

Table 56: Convenience of services through E-Governance

54- How easy you will have access to current local governance services through E-Governance?

	Frequency	Percent	Valid Percent	Cumulative Percent

Valid	Very Less	9	9.0	9.0	9.0
	Less	13	13.0	13.0	22.0
	As Usual	16	16.0	16.0	38.0
	Much	39	39.0	39.0	77.0
	Very Much	23	23.0	23.0	100.0
	Total	100	100.0	100.0	

Table 57: Access to current services through E-Governance

55- What level of equitable service receiving opportunity will guarantee by E-governance?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Less	4	4.0	4.0	4.0
	Less	8	8.0	8.0	12.0
	As Usual	32	32.0	32.0	44.0
	Much	32	32.0	32.0	76.0
	Very Much	24	24.0	24.0	100.0
	Total	100	100.0	100.0	

Table 58: Equitable service receiving guarantee

56- What altitude of interaction do you want to have to the offices from where you get e-services?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Less	5	5.0	5.0	5.0
	Less	9	9.0	9.0	14.0
	As Usual	13	13.0	13.0	27.0
	Much	30	30.0	30.0	57.0
	Very Much	43	43.0	43.0	100.0
	Total	100	100.0	100.0	

Table 59: Altitude of interaction

57- How much do you think citizen participation will insure through E-governance at local level?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Less	9	9.0	9.0	9.0
	Less	8	8.0	8.0	17.0
	As Usual	16	16.0	16.0	33.0
	Much	39	39.0	39.0	72.0
	Very Much	28	28.0	28.0	100.0

Total	100	100.0	100.0	

Table 60: Citizen participation insurance

58- E-Governance, as an appropriate tool, can facilitate modernizing governance at local level

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	9	9.0	9.0	9.0
	Disagree	4	4.0	4.0	13.0
	Not Sure	10	10.0	10.0	23.0
	Agree	32	32.0	32.0	55.0
	Strongly Agree	45	45.0	45.0	100.0
	Total	100	100.0	100.0	

Table 61: E-Governance to facilitate modernizing governance

59- Introducing E-Governance will put the local government entities in a competitive advantage

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Sure	17	17.0	17.0	17.0
	Agree	59	59.0	59.0	76.0
	Strongly Agree	24	24.0	24.0	100.0
	Total	100	100.0	100.0	

Table 62: E-Governance for competitive advantage of local government

Appendix B.

Questionnaire used for data collection

BRAC Institute of Governance and Development, BRAC University

Survey on E-governance for betterment of Local Governance in Afghanistan

[Note: The answers given to these questions will be used for academic research only.
The purpose of this research is to develop a general understanding about e-governance services that leads to ensuring better local governance. I, therefore, request you, to give me some basic information and your opinions by filling up the questionnaire. The questionnaire is anonymous and you are not asked to sign it, though you may do so if you wish.]

Date: -…….

Number: -……...

Section (I) Personal Information:

Name (Optional)	Designation	Age	Sex		Workplace
			Male	Female	
			☐	☐	

Section (II): About qualifications and facilities:

Please Tick "Yes" or "No"

No.	Question	Yes	No
1.	Do you have basic skills of computer usage?	☐	☐
2.	Do you have any computer at home? (Desktop, Laptop, Tablet, etc.…)	☐	☐
3.	Do you have internet connection at home?	☐	☐
4.	Do you have computer facilities at office?	☐	☐
5.	Do you have internet connection at office?	☐	☐
6.	Do you have e-mail address?	☐	☐

7.	Do your office have any official website?	☐	☐
8.	Are you using any social media website?	☐	☐

9. While I am in office, my official computer is operating with software's like;
[For **each** row, tick **one].**

Programs	Only with	Mostly with	Some times with	Rarely	Not at all
Word Processing;	☐	☐	☐	☐	☐
Spreadsheet analysis (Ms. Excel, etc.);	☐	☐	☐	☐	☐
Statistical package (SPSS, etc.);	☐	☐	☐	☐	☐
Database Management (MS Access, Oracle, etc.);	☐	☐	☐	☐	☐
Graphical Presentation (MS PowerPoint, etc.);	☐	☐	☐	☐	☐
Internet (Browsing, web update, e-mail);	☐	☐	☐	☐	☐
Programming task;	☐	☐	☐	☐	☐
Others (pls. mention):	☐	☐	☐	☐	☐

10. Do you have any ICT certificate?

☐Yes ☐No

If yes, please give the details below:

Name of Certificate	**Duration**	**Place Taken**	**Sponsor: Official/Personal**

11. How strong your computer specifications are, to carry your office work?

Very high	**High**	**Average**	**Low**
☐	☐	☐	☐

12. On average for how long do you use computer daily?

For official Purposes			
Over 2 hours	1-2 hours	30 Minutes – 1h	30 Minutes>
☐	☐	☐	☐
For Private Purposes			
Over 2 hours	1-2 hours	30 Minutes – 1h	30 Minutes>
☐	☐	☐	☐

Scale: High (4); Normal (3); Moderate (2); Low (1);

No.	Question	Answer			
		1	2	3	4
13.	What is the speed of the internet connection at your home?	☐	☐	☐	☐
14.	What is the speed of the internet connection at your office?	☐	☐	☐	☐
15.	For how long do you use the existing ICT facilities at your workplace?	☐	☐	☐	☐

16. How often do you use internet for your official activities?

Several times a day	Once in a day	Once in a week	Never
☐	☐	☐	☐

17. How often do you use your official e-mail for communication?

Several times a day	Once in a day	Once in a week	Never
☐	☐	☐	☐

18. What is the overall power (electricity) situation at your workplace?

Very sufficient	Sufficient	Less sufficient	Not sufficient
☐	☐	☐	☐

Section (III): Understanding or knowledge about E-governance:

For Each Statement Tick **one**	Quite Aware	Aware	Slightly Aware	Simply Heard	Not Aware
About the concept of e-government	☐	☐	☐	☐	☐
A National IT Policy is in adoption now	☐	☐	☐	☐	☐
Government has created official websites for every province,	☐	☐	☐	☐	☐
For speedy communication government encourages e-mail correspondence	☐	☐	☐	☐	☐

19. Currently for what purpose E-governance uses in your office? (You can choose all possible options)

For Data storage and Data Management	For Communication	For Filling forms	For announcement of Information	Others
☐	☐	☐	☐	☐

20. For what purpose E-governance should be used in your office? (You can choose all possible options)

For Data storage and Data Management	For Communication	For Filling forms	For announcement of Information	Others
☐	☐	☐	☐	☐

21. What is your evaluation about e-governance readiness of your office?

Fully ready	Ready	Partially ready	Not Ready
☐	☐	☐	☐

22. Do you think are there any impediments/barriers to e-governance readiness? (You can choose all possible options)

Lack of human capital	Lack of infrastructure and logistics	Frequent Load shedding	Insufficient policy and regulatory framework	Lack of proper perception of the citizen	Lack of privacy and security	Lack of Electricity	Other
☐	☐	☐	☐	☐	☐	☐	☐

23. Do you provide any service through the official website? ☐Yes ☐No
IF "Yes", please put the name of the services, you provide.

SECTION-IV: Impacts of E-Governance *[Please put tick mark (√) on respective boxes]*
[Scale: Very Less (1), Less (2), As Usual (3), Much (4), Very Much (5)]

Impact Assessment Indicator	Level

1. Attenuation of Corruption	1	2	3	4	5
a. What level of intermediary interference at local level will change by E-governance?	☐	☐	☐	☐	☐
b. What extent of corruption we can alter with usage of E-governance at local governance entities?	☐	☐	☐	☐	☐
2. Intensity of Clarity	1	2	3	4	5
a. What altitude of clarity can we achieve through the usage of E-gov?	☐	☐	☐	☐	☐
b. What elevation of transparency we can achieve through e-service delivery at local level?	☐	☐	☐	☐	☐
3. Efficiency of Services	1	2	3	4	5
a. What level of efficient service delivery we can achieve through E-governance at local level?	☐	☐	☐	☐	☐
b. What extent the service delivery will be effective through E-governance at local level?	☐	☐	☐	☐	☐
4. Level of Convenience	1	2	3	4	5
a. What extent it will be convenient for you to receive services through E-governance at local level?	☐	☐	☐	☐	☐
b. How much do you believe E-governance will be convenient for you at local level?	☐	☐	☐	☐	☐
5. Accessibility	1	2	3	4	5
a. How easy you will have access to current local governance services through E-governance?	☐	☐	☐	☐	☐
b. What level of equitable service receiving opportunity will guarantee by E-governance?	☐	☐	☐	☐	☐
6. Altitude of Interaction	1	2	3	4	5
a. What altitude of interaction do you want to have to the offices from where you get e-services?	☐	☐	☐	☐	☐
b. How much do you think citizen participation will insure through E-governance at local level?	☐	☐	☐	☐	☐

[For Each Statement Tick **one**] **In respect of modernizing governance-**	Strongly agree	Agree	Not sure	Disagree	Strongly disagree
E-governance, as an appropriate tool, can facilitate modernizing governance at local level.	☐	☐	☐	☐	☐
Introducing e-governance will put the local government entities in a competitive advantage.	☐	☐	☐	☐	☐
Organizational changes & collaborations among local and central public agencies are necessary for e-governance.	☐	☐	☐	☐	☐
E-governance demands innovations and changes in local government's working processes & procedures.	☐	☐	☐	☐	☐

Preparing the government employees at local and central level is vital for introducing e-governance.	☐	☐	☐	☐	☐
An appropriate regulatory environment is prior to introduce e-governance at local level.	☐	☐	☐	☐	☐
Making available of adequate technology on its own cannot suffice to e-governance.	☐	☐	☐	☐	☐
Public-private partnerships & collaboration with others is important to introduce e-governance especially at local level.	☐	☐	☐	☐	☐
In respect of good governance, e-governance can-					
Improve efficiency of local governance entities.	☐	☐	☐	☐	☐
Improve effectiveness of local governance entities.	☐	☐	☐	☐	☐
Support quality decision & policy making especially at local governance entities.	☐	☐	☐	☐	☐
Increase transparency in local governance entities.	☐	☐	☐	☐	☐
Reduce corruption in local governance entities.	☐	☐	☐	☐	☐
Reduce costs for public services.	☐	☐	☐	☐	☐

In respect of democracy and citizen centricity, e-governance can -	Strongly agree	Agree	Not sure	Disagree	Strongly
Enhance accountability & responsive of government	☐	☐	☐	☐	☐
Reduce isolation between government & citizen	☐	☐	☐	☐	☐
Keep citizens informed	☐	☐	☐	☐	☐
Enhance citizens participation and feedback in public administration	☐	☐	☐	☐	☐
Increase convenience and choice for citizens in relation to delivering public services	☐	☐	☐	☐	☐
Reduce social, political, geographical & legal discrimination	☐	☐	☐	☐	☐

SECTION-V: E-Governance Outcomes *[Please put tick mark (√) on respective boxes]*
[Scale: Very Poor (1), Poor (2), Moderate (3), Good (4), Very Good (5)]

Impact Assessment Indicator	**Level**				
1. Accountability	1	2	3	4	5
a. What extent the e-government makes government answerable to their action and decision towards citizens?	☐	☐	☐	☐	☐
b. What extent e-government makes government answerable in their actions and decisions to the stakeholders?	☐	☐	☐	☐	☐

2. Transparency	1	2	3	4	5
a. What extent the e-government makes government apparent in their actions and decisions towards citizens?	☐	☐	☐	☐	☐
b. What extent e-government makes the government accessible information to the citizens/stakeholders?	☐	☐	☐	☐	☐
3. Effectiveness	1	2	3	4	5
a. What extent the e-government facilitates government in the proper e-service delivery to the citizens?	☐	☐	☐	☐	☐
b. What extent e-government streamlines the interaction process between different government organizations?	☐	☐	☐	☐	☐
4. Responsiveness	1	2	3	4	5
a. What extent the e-government facilitates government in addressing the inquiries by citizens?	☐	☐	☐	☐	☐
b. What extent the e-government facilitates government in approaching to their stakeholders in a very well manner?	☐	☐	☐	☐	☐
5. Rule of Law	1	2	3	4	5
a. What extent the e-government facilitates government in following up rules and regulations in the administrative operations?	☐	☐	☐	☐	☐
b. What extent e-government facilitates government following up rules and regulations within legal framework?	☐	☐	☐	☐	☐
6. Participation	1	2	3	4	5
a. What extent the e-government facilitate in bringing the participation of citizens in government decision making process?	☐	☐	☐	☐	☐
b. What extent the e-government facilitates the government to represent the interest of citizens?	☐	☐	☐	☐	☐

For Each Statement Tick **one**	Strongly agree	Agree	Not sure	Disagree	Strongly disagree
Building employees' e-attitude (state of mind toward e-governance) is prior to happen e-governance	☐	☐	☐	☐	☐
Integrated training plan and awareness raising program can address skill gap, cultural change and motivational issues among public employees.	☐	☐	☐	☐	☐
E-governance demands employees to work in new ways & to acquire new knowledge and skill.	☐	☐	☐	☐	☐
Such new knowledge & skill will create opportunities for employees' professional advancement & career development.	☐	☐	☐	☐	☐
E-governance will badly affect the existing organizational culture.	☐	☐	☐	☐	☐
Considerable skill gap exists among officials to manage e-governance.	☐	☐	☐	☐	☐

Such skill gap is likely to lead to an unmanageable situation for e-governance.	☐	☐	☐	☐	☐
E-governance will create employees' mismatch with new happenings and changes.	☐	☐	☐	☐	☐
It will cause worries among employees (about take-up capability, performance fall, job security, etc.).	☐	☐	☐	☐	☐
E-governance will face some sorts of resistance to change within administration.	☐	☐	☐	☐	☐
Adoption of e-governance will make loss of human contact & create adverse social effect.	☐	☐	☐	☐	☐
E-governance initiatives will end up with no positive change.	☐	☐	☐	☐	☐
I prefer for a very quick move by the government towards e-governance.	☐	☐	☐	☐	☐
I have ability to develop & manage skills & culture for new operational capabilities & organizational changes regarding e-governance.	☐	☐	☐	☐	☐
I prefer switch over to new system offered by e-governance.	☐	☐	☐	☐	☐

Appendix C.

Questionnaire used for informal interview on E-governance for Betterment of Local governance:

1. What are the factors considered major challenges in achieving the better local governance through e-governance by local government of Afghanistan?

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2. What are the suggestions you considered for obtaining the objectives of better local governance through E-governance by local government of Afghanistan?

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3. What do you think are the benefits of E-governance?

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4. Why do we need e-governance?

5. How we can easily establish e-governance in sub-national or local governance entities?

Thanks for your kind cooperation

Signature: _____

Name: _____

Date: _____

Declaration: This questionnaire is designed as a part of a Master research and carries academic interest only. All information, received through this questionnaire, will be used only for academic purpose giving due attention to privacy.

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