

Introducing E-governance in Bangladesh:
An assessment of e-readiness of government Officials

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Abbreviations

Abbreviations	Prolongations
ACAD	Advanced Course on Administration & Development
ADP	Annual Development Programme
APDIP	Asia Pacific Development Information Programme
BPATC	Bangladesh Public Administration Training Centre
CCTV	Closed Circuit Television
DS	Deputy Secretary
FTC	Foundation Training Course
GPS	Global Positioning System
GSM	Global System for Mobile communication
ICT	Information and Communication Technology
IMF	International Monetary Fund
MIS	Management Information System
OPEN	Online Procedures Enhancement
POS	Point Of Sales
SICT	Support to ICT
SSC	Senior Staff Course
UNCRD	United Nations Centre for Regional Development
UNDP	United Nations Development Programme

Executive Summary

The imperative of e-governance emanates from the donor's agenda of 'good governance' although donor's position is paradoxical with their allegedly benign consent to high-level political corruption. Simply, these governance agenda are desirable on their own. However, e-governance initiatives have taken place across the world irrespective of developed or developing countries. Bangladesh's e-governance imperative is also desirable on its own. The study examines our public administration of its readiness to brace e-governance in its administrative procedures in terms of equipment, training and attitudes. The study was aimed at knowing availability of computers, ICT knowledge, and attitude towards e-governance of the civil servants of Bangladesh. A sample survey on 33 deputy secretaries was followed by an extended survey on 254 civil servants using different structured questionnaires, findings of which were then compared with that of a case study on an upazila.

In terms of conceptual clarity, the sample survey reveals the absence of even a threshold level of understanding about e-governance of most of the respondents. The extended survey finds that computerization of offices decreases at the lower tiers, i.e. district and upazila levels, of administration. The civil servants working at these lower tiers have comparatively less access to computer training and internet connectivity. Nonetheless, other indicators show a prospective enabling environment for e-governance initiatives in administrative procedures. Almost all (98%) of the civil servants have elementary level knowledge of computer operation while 87% are familiar with the usage of internet, and 79% are familiar with the usage of e-mail. With regard to the attitude towards internet and e-governance 99% civil servants believe that internet will benefit our nation, and 98% think that the government should introduce e-governance in the administrative procedures without delay. Nearly 97% of the civil servants believe that introduction of e-governance in administrative procedures will help reducing corruption in Bangladesh. However, the case study shows that upazila level officers in the administration have less computers, less access to computer training, less ICT knowledge and skills but high positive attitude towards the use of internet and introduction of e-governance in public offices.

The district and upazila level offices, in general, and upazila level agriculture, livestock and family planning offices, in particular, of the government with a large interface with the citizens are the frontiers of service delivery directly to the people. Therefore, these offices need to be computerized with access to networking facilities on priority basis and the officers who will be working in these offices should be trained up specially. The public sector training institutions should design and implement special training courses having similar contents on ICT applications including e-governance. The compulsory courses for the civil servants should include similar contents on e-governance applications across the cadres' training institutes.

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Researchers

.Chapter One

INTRODUCTION

1.1 Background

The issues of governance are internal affairs of any sovereign state and are to be addressed by the people of the sovereign nation. But development partners, bilateral or multilateral, have picked up the issues of governance of the developing countries in their development agenda. Ineffective outcomes of the foreign aid given by the development partners induced them, specially the multilateral ones, to encroach upon the governance issues of the developing countries. The issues of governance have come to the fore when the development policy-makers, particularly the International Monetary Fund (IMF), adopted a 'good governance' agenda around the early 1990s. Their conviction that absence of 'good governance' in the recipient countries is the main cause of poor performance of the development aid led them to focus on the improvement of governance process. Frustration with the effectiveness of foreign aid caused the donors particularly the IMF to apply the concept of 'good governance' as a condition when providing policy advice, financial support and technical assistance to its members [HDC, 1999].

There have been many critics of the IMF's good governance agenda. These critics argue that the Fund's policies, portrayed as politically progressive, in fact, impose restrictions on legitimate instruments of development policy of middle-income countries

[Thirkell-White, 2003]. The good governance agenda confuses means with ends, instruments with goals, and in so doing, takes our eyes off the really important governance reforms that need to be done in developing countries to accelerate economic and social development [Aminuzzaman, 2007].¹ These critics' convictions are based on the reality that none of the really successful high growth economies of the last fifty years achieved any success in good governance indicators before they became high-growth economies.

However, the good governance agenda, which seeks to ensure rule of law, improve efficiency and accountability of public sectors, and tackle corruption, sounds good for countries, like Bangladesh, which are indulged in endemic corruption. Therefore, many of the governance agenda advocated by the Bretton Woods institutions are desirable on their own terms. But the paradox is that these institutions are credited with the blame that they help high-level political corruption in the developing countries. The problem of corruption has to be addressed not for the advocacy of the development partners but for the economic emancipation of these countries. This problem has to be fought from a number of fronts. Disclosing the administrative procedures to the public and making the public administrators and the political government accountable

¹ Dr. Salahuddin M. Aminuzzaman presented a paper titled *Government or Donor-Who sets the Governance Reform Agenda?: A Critical Review of Bangladesh Experience* to NAPSIPAG – NCPAG International Conference on Public Administration and Governance at the Forefront of Change: Dimensions, Dynamics, Dysfunctions and Solutions, 5-7 December 2007, Manila, Philippines.

through bringing transparency in their activities can be important fronts for fighting corruption.

Corruption and access to information are correlated. Increased and easier access to information reduces corruption. One way to reduce corruption is making the administrative procedures transparent and access to information easier. Transparency in the administrative procedures and easy access to information enhance accountability of the public servants as well as the politicians. Good governance, transparency, and accountability are, therefore, interrelated areas of concern. Without accountability good governance cannot exist. To ensure accountability, the administrative procedures have to be transparent. On the other hand, good governance has close relations with availability of information. Access to information is power. In case of bad governance, the traditional power-bases in the governance process block access to information by the public for their private gains. In case of good governance, on the other hand, access to information is easy for the decision-makers and the public alike. To facilitate transparency and accountability - the core indicators of good governance, information has to be presented in useful and understandable ways because without transparency and accountability, organization and institutions are likely to be corrupt and authoritarian [Siddiqui, 2000].

Closely connected to the concept of good governance is the concept of electronic governance or e-governance. This approach to governmental service delivery which utilizes new modes of information and communication technology (ICT) is becoming popular and being initiated in all across the world. The popularity of e-governance has increased not only because of the fact that it reduces corruption but also because it makes service delivery easy and simple. E-governance reduces costs of services and time of delivery of the services. Therefore, introduction of e-governance is going to increase significantly over the course of the next decade as well. Seoul Metropolitan Government have introduced Online Procedures Enhancement for civil application (OPEN) system that discloses the administrative procedures and the citizens can get real time status of their applications for desired services online. The state government of Karnataka has taken a leadership role in introducing e-governance in India. Although automation of government offices requires a big money budget, strong political commitment can overcome the required cost. The level of economic and human resource development in India is not much better than Bangladesh. Political commitment of the Karnataka government has made it possible to introduce e-governance in the state. We cannot live in isolation. For our survival and development we need to compete with rest of our world. And certainly we will lag behind if we fail to adapt to the newer technologies i.e., information and communication technologies (ICT). Through introduction of e-governance in government offices, delivery of government services to the public will

become transparent, efficient and cost-effective. E-governance helps reduce red-tapism, procrastination in file movements, and thereby reduces the chances of corruption to take place.

The government of Bangladesh has declared its National ICT Policy in October 2002. In this policy the government has committed itself to use ICT system within the public administration to improve efficiency, reduce wastage of resources, enhance planning and raise the quality of services. The policy advises every government office to create an ICT Cell. The government intended to gradually increase government spending in ICT in the Annual Development Programmes-ADP (National ICT Policy 2002). Declaration of ICT policy and government's commitment to increase budget for ICT sector shows government's inclination to introducing e-governance in its offices. It was in this backdrop that this research work was undertaken to examine how ready is the civil servants of Bangladesh in terms of training on ICT and attitude towards acceptance of e-governance in their offices.

1.2 Rationale of the Study

Bangladesh is accused of being one of the most corrupt countries in the world. Access to information here is not so easy. Here citizens need to buy information, services, and products from the public offices that are supposed to be free of cost. Sometimes, the citizens are compelled to buy these free services, information, and products with higher cost. It is not only a matter of buying free services with

higher cost but also that getting the services is not easy. People need to wait a long time and be harassed for getting their desired services. But there are technologies that can make delivery of these services, information to the people in a transparent manner, quite simply and quickly. Worldwide now the internet has reduced the cost of information to a fraction of what it once was [Goldsmith, 2004]. The traditional costs of travel, meetings, document exchange, and communication have dropped by many orders of magnitude. Modern technologies allow organizations to share data and integrate their business process with partners outside the four walls of the organization, enabling them to share information in real time. Usage of the modern technologies can make access to information, services, and products easy. Therefore, propensity of doing corruption in delivering the government services to the people decreases. Application of these modern technologies in administrative procedures brings about e-governance. Corruption may be reduced in Bangladesh to a great extent by introducing e-governance in government offices/departments that have a large interface with the public or business and which are perceived to be relatively corrupt. Only rules and regulations cannot eradicate corruption, unless we modernize our administration inherited from our colonial master, which still maintain the colonial flavour.

The government has committed itself in the National ICT Policy 2002 that (it) shall implement widespread ICT systems to provide nationwide coverage and access by any citizen to the government

databases and administrative systems, which can be used to extend public services to the remotest corner (Article 3.6.2). All Government ministries, divisions, departments, autonomous bodies and all district headquarters, Upazila headquarters and Union Parishad offices must be networked to the National Data Resource Centre in the shortest possible time. The centre shall be a system of national databases having capacity to store and supply rapidly all necessary information on the economic, cultural and social situation of our country (Article 3.6.3). Each ministry, division, government body shall create an ICT Cell, to be managed and run by well trained ICT professionals to plan, coordinate and implement ICT projects and services. Special compensation package comparable to that of private sector shall be introduced to encourage ICT professionals (Article 3.6.4). All ministries, divisions, agencies of government and autonomous organizations shall set up web sites where all policy documents and information relevant to the public shall be posted as early as possible and regularly updated. There will be a web portal of Bangladesh Government from which link will be provided to the web sites, like e-forms, e-procurement, e-recruitment, e-results etc. (Article 3.6.5).

The above articles of the national ICT policy depict clear and well-phrased national goals to introduce e-governance in government offices. To materialize these commitments we need a committed public administration. This study examines computer facilities in the offices, familiarity with computer operations, internet connectivity,

and attitude towards internet and e-governance of the civil servants. Its policy recommendations may come to the help of policy makers in designing strategies for introducing effective e-governance and thereby for combating corruption. Bangladesh Public Administration Training Centre (BPATC) is mandated to undertake research and provide consultancy services to the government on crucial policy issues. E-governance is an important issue of governance at present not only in Bangladesh but also worldwide. This study partially addresses BPATC's mandated obligations.

1.3 Scope of the Study

The findings of the study are based on information collected from 287 officers representing 18 cadres of Bangladesh Civil Service and a case study conducted on the government offices of an upazila. Therefore, the study is limited to civil servants only. It is focused on availability of and access to computers, computer knowledge and training, and ICT perceptions of the civil servants in relation to problems of introducing e-governance in government offices. In other words, the civil servants of the government offices/department having a large interface with the public or business have come under purview of this study. It has addressed the issue of availability of computers in the offices of the public administrators. Availability of computers does not mean computerization of offices. Optimum usage of computers requires adequate knowledge of and training on the operation of the machine. Knowledge of and training on computers does not necessarily mean that the machine is in proper

use. Positive attitude towards the multi-faceted use of the equipment is also needed in this respect. Therefore, the study seeks to identify knowledge of and training on computers of the respondents. In our world today computer is not a mere typing machine. This equipment has become a machine for many purposes of which internet is the most important one. Therefore, internet knowledge of the civil servants has also been addressed in the present study. In this regard attitude of the public administrators towards the use of internet and attitude towards introduction of e-governance in the government offices have been examined.

1.4 Objectives of the Study

The objectives of the study were to:

- (i) Find the state of computerization of the offices of the civil servants;
- (ii) Understand their level of ICT knowledge; and
- (iii) Understand their attitude towards use of internet and introduction of e-governance in the government offices.

1.5 Methodology

The present study was an exploratory research. Both primary and secondary data have been used in preparing this report. Primary data had been collected from two sets of respondents. Two surveys have been conducted to these two sets of respondents using open ended and structured questionnaires. The first set of respondents was 33 deputy secretaries (DS) to the government of Bangladesh. A

questionnaire had been used to identify the level of understanding of the civil servants about the concept of e-governance and their perception of the problems of introducing e-governance in government offices. After gauging their perception about the subject of this study, a second questionnaire was administered to 254 civil servants to attain the objectives of the study. In addition, a survey was conducted using a structured questionnaire to all class-I and class-II officers of Domar upazila under Nilphamari district. Data collected through the structured questionnaires have been processed through the SPSS programme. Descriptive statistics have been used in data analysis. Survey data have been presented in tables. Existing literatures having a bearing on Bangladesh perspective have been consulted for secondary data. Secondary data included research reports, published books, journal articles, presented seminar papers, and the internet.

1.6 Limitations

This study was undertaken a few years back. Information and communication technologies are being developed and updated rapidly. There has been a relatively longer span of time between inception and finishing of the study. So the issues that were relevant four years ago may have lost importance now-a-days. Moreover, the scope of the study itself was narrow considering the scope of the subject of the study.

1.7 Review of Literatures

Literature on e-governance issue in Bangladesh is very few. From the consulted sources we have found some articles, which sporadically appeared in the newspapers, academic journals and edited books. Two major studies have been found relating to our research topic. After the publication of National ICT Policy in October 2002 an ICT Taskforce was constituted headed by the Prime Minister of the government of the People's Republic of Bangladesh. Under this Taskforce the Planning Commission launched a Support to ICT Task Force Programme. This programme undertook a study titled "*Comprehensive Study on e-Governance Initiatives in Bangladesh*". This study was targeted to find out the extent to which the government offices have been computerized, IT trained personnel in the government offices, and their connectivity to internet. However, this study does not address the attitudes of the civil servants towards implementation of e-governance in government offices.

Shah Mohammad Sanaul Hoque, undertook a study titled *E-governance in Bangladesh: Initiatives and Challenges*, for his PhD thesis in the Institute of Bangladesh Studies, Rajshahi University, completed in 2005. The study reviewed the status of and the initiatives for e-governance in Bangladesh. Therefore, it examined the organization and services of the websites of some selected ministries and divisions. The core component of the study was a survey to appraise the level of aptitude, awareness, perception and

attitude towards e-governance, of the Class I officers working in the Bangladesh Secretariat. The research is based on a survey conducted on ministries and divisions that are located in the premise of the Bangladesh Secretariat. The respondents of the survey were the class I officers working in those ministries and divisions. Regarding preparedness of the public organizations, the civil servants and the citizens, with particular reference to the Bangladesh Secretariat and the Class I officers, the researcher came to his conviction that the first one – preparedness of the public organizations – shows a nominal edge; the second one – the civil servants – tends to a mediocre tone; and the third or the most important one – the citizens – is almost not in the scene.

On the aptitude, awareness, perception and attitudinal factors of the class I officers the researcher found that, to some extent, they are able to adapt with the e-governance take off. He suggested a comprehensive training programme for civil servants that would effectively deal with awareness issues, mindset, motivational and cultural aspects that are consistent with e-governance goals and focus, in general. The researcher noted that current resource base, technological infrastructure, legal environment, management guidance, and strategic directions do not adequately support e-governance initiatives in Bangladesh. He identified a legacy of unresponsive public organizations, mediocre workforce, and an unaware, unprepared and outreach demand side assembles huge challenges in the course of e-governance take off.

1.8 Report Plan

Chapter one of this report gives a background and methodology of the study. Chapter two begins with a discussion on how information and communication technologies affect public administration. The section shows linkage among ICT, bureaucrats and the citizens. The next section of the chapter delves into the concept of e-governance and how it fits into the public administration. Then the chapter discusses the status of e-governance applications in some Asian countries. The concluding section of the chapter discusses the current status of e-governance application in Bangladesh.

Chapter three presents the findings of the survey. This chapter is divided into two parts. The first part presents the findings of the first survey on understanding of e-governance of the civil servants. The second part analyses the findings of the second survey. In this part most of the data tables are presented followed by analysis. The three objectives of the study have been address basically in the second part of the third chapter.

Chapter four presents findings generated from the upazila survey. The upazila survey reveals that the upazila level officers of the government lack training on ICT. But they have shown a strong positive attitude towards introduction of e-governance in government offices. Lastly, chapter five summaries the findings of the study and put forward some recommendations.

Chapter Two

ICT and Public Administration

2.1 ICT in Public administration²

The concerns of the classical theorists of public administration were how to design public organizations that would be both efficient and economical [Robert, 2000]. Information and communication technology (ICT) has come forward to this end. According to Ignace Snellen [2002] there have been two most important developments in modern public administrations. One is the replacement of the traditional vertical command-and-control relationships between government and societies by the horizontal network relationships between public, semi-public and private agents. The other is the introduction of information and communication technology (ICT) applications, which are revolutionizing the internal workings and external relationships of public administrations. He categorizes these ICTs as *database technologies, decision support technologies, networking technologies, personal identification and tracking technologies, and office and multimedia technologies*. A brief discussion on these technologies will help understand how they can influence the internal workings and external relationships of public administrations.

² This section heavily draws on Snellen, Ignace [2000].

Database technologies are applied in three basic forms of information systems: object registration systems, sectoral systems, and control systems. Object registration systems register the population, legal entities such as institutions, immovables, enterprises etc. These registration systems certify the administrative identity of the citizen, institutions, enterprises etc. Sectoral systems assist in basic transactions in a specific sector of public administration such as social security, health care, police, traffic and transport etc. Control systems perform and monitor the expenditure of financial, human and physical resources within ministries, other government bodies and subsidized organizations. Object registration systems are of interest for exchanges between bureaucracies and citizens. Sectoral systems and control systems facilitate performance monitoring and benchmarking between politicians and public servants in one hand help citizens to improve their choice processes and to influence service provision rendered by the institutions on the other.

Decision support technologies support decision-making processes, by applying specific rules to individually, or collectively, entered data. Databases from different government departments containing the outcomes of decisions are linked to decision-making systems. These databases are presented in the form of simulation models, or spreadsheets to aid decision-making process. The street-level bureaucrats mainly use decision support technologies in policy implementation phase. In this phase automation of decision-making

processes has moved from the back office to the front office: from the financial/administrative processing of cases to the client intake procedure.

Networking Technologies are making time and place insignificant. Networking started with local and wide area networks. But now-a-days intranets and extranets – using Internet technology – are in common use in government procedures. These networks may have a general purpose of data-communication or any special purpose like police networks. With regard to government and public administration these technologies help communication between public servants, between public servants and organizations in other sectors of the society, and between public servants and citizens through file-sharing, email, websites, navigating, chatting, video-conferencing and the like.

Personal identification, tracking, tracing and monitoring technologies can make public administration simple and easy. Virtual general database can be developed using personal identification numbers or more specific numbers such as fiscal, social security, health care or educational numbers to monitor the mobility of people and vehicles. More sophisticated technologies are being used for tracking and monitoring purposes which include global positioning systems (GPS)³, closed circuit television (CCTV)⁴, mobile phone system like

³ A system based on satellites that allows a user with a receiver to determine precise coordinates for their location on the earth's surface.

GSM⁵, and point of sales (POS)⁶ systems. These technologies are extremely useful to public servants in implementing policies. 'In transactions with citizens, street-level bureaucrats find them effective for front-end verifications and fighting fraud: within bureaucracies they are effective in controlling workflows and the workloads of employees' [Snellen, 2000]. These technologies are effective in making public services like performance of schools ('quality cards'), hospitals (waiting times), municipalities (cost of services), fire brigades (reaction time), etc. transparent.

Office automation and multimedia technologies are in use for generating, handling, rearranging information in a retrievable form for public administration. Retrievability of information is important for all types of auditing purposes including legal, political, democratic, managerial and historical. Office automation and multimedia technologies make retrievability of information possible through the use of text-processing systems and other entry devices; storage media such as magnetic tapes, CDs, CD-ROMs or photographic

⁴ Closed Circuit Television (CCTV) is the use of video cameras to transmit signal to a specific, limited set of monitors. It differs from broadcast television in that the signal is not openly transmitted, though it may employ point to point wireless links. CCTV is often used for surveillance in areas which need monitoring, such as banks, casinos, airports, military installations and convenience stores.

⁵ GSM (Global System for Mobile communication) is a digital mobile telephone system that is widely used in most countries of the world.

⁶ A point-of-sale (POS) terminal is a computerized replacement for a cash register. Much more complex than the cash registers of even just a few years ago, the POS system can include the ability to record and track customer orders, process credit and debit cards, connect to other systems in a network, and manage inventory.

films; electronic mail, electric data interchange; and document and text retrieval systems.

2.2 E-governance and Public administration

Governance, in the World Bank's definition, has three distinct aspects: (a) the form of a political regime (parliamentary or presidential, military or civilian, and authoritarian or democratic); (b) the processes by which authority is exercised in the management of a country's economic and social resources; and (c) the capacity of governments to design, formulate, and implement policies, and, in general, to discharge governmental functions [Robert, 2000]. E-governance contributes to the last two aspects of governance. Using the ICTs, the procedures of the public organizations are automated and secondly, the capacity of the public organizations in formulating policies is enhanced through public participation.

E-governance refers to the use of digital devices by the public authorities in dealing with their public, private and non-profit stakeholders [Hossain, 2006]. The electronic mode of service delivery to the citizens by public administrators makes the procedures transparent and the service providers accountable. This electronic mode of service delivery simplifies access to information. As the service delivery becomes transparent, the service providers become accountable, which ultimately curb down corruption. Therefore, e-governance has been an important instrument to fight corruption worldwide. Introduction of e-governance requires

automation of government offices. Automation of government activities helps service delivery and communication in three fronts. It helps day-to-day communication within the government agencies and departments. This makes decision making faster and transparent. Most importantly, automation of the processes and structures makes service delivery of government to the public, in general, and specially to the business people easier, quicker and transparent. Therefore, e-governance has three components, namely –

- (i) Government to Government (G2G) services, such as internal e-mail,
- (ii) Government to Citizens (G2C) services, such as payment of utility bills, and
- (iii) Government to Business (G2B) services, such as corporate tax filing.

Application of e-governance in the governance process increases accessibility to, and openness and accountability of government activities. As common government services, such as paying electricity, water, telephone bills, examination fee, government procurement etc. becomes possible through the Internet, the propensity of doing corruption in these transactions become less. Different government forms for getting government services become available in the Internet. Citizens can download these forms at home or in their place of convenient, fill out them and then submit

them. This reduces transportation costs and save valuable time. Citizens then can track the status of their applications in the Internet without physically going to the government offices. E-governance, therefore, reduces the propensity of doing corruption and irregularity from both sides.

Any e-government initiative aims to enhance public satisfaction through improved, efficient and quick service delivery. Citizens can participate in the process of governance through contributing their opinions with regard to policy formulation. An effective information society demands some prerequisites, which include institutional capacity, cultural, and human resources conditions, ICT strengths and political commitment. Presence of these prerequisites can be described as the enabling environment for e-governance initiatives. These prerequisites are products of numerous technological, fiscal and cultural factors. For effective e-government initiatives public servants should possess clear idea of these factors involving administrative modernizations. Some of the factors can be addressed quickly provided necessary financial resources are in hand. But other factors need long-term preparations. Institutional weakness, lack of qualified or properly trained public servants, ICT friendly culture, and technological limitations may need long-term preparations. Most importantly, e-readiness of the public servants and the citizens cannot be developed overnight. The higher the human development the more likely citizens will be inclined to accept and use e-governance services. Human development is a result of

several other factors, which need relatively longer period for improvement. Familiarity and comfort with the internet is a significant component of an enabling e-governance environment. For effective introduction of e-governance in public administration, civil servants need well-designed orientation to e-governance enabling environment.

2.3 E-Governance: The Asian Experience

A workshop titled: *Paving the Road towards Pro-poor e-Governance*⁷ was organized by UNDP-APDIP⁸ and UNCRD⁹ in Bangkok from 26-27 April 2006. In the workshop 20 papers were presented from 12 countries. Table 2.1 shows comparative data on e-governance facilities of those 12 countries. Most papers presented in the workshop account how many agencies have computerized or how many web sites of government agencies and departments have been developed. These webs present information that is static in nature and not always updated. Therefore, they are not very interactive. Nevertheless, some of the Asian countries have made breakthrough in some cases. In South Korea, Seoul Metropolitan Government has introduced Online Procedures Enhancement for Civil Applications (OPEN) System (see the box below) which helps citizens to monitor the progress of their applications.

⁷ The workshop report was compiled by Bhatnagar, Subhash (see Reference)

⁸ United Nations Development Programme's – Asia Pacific Development Information Programme

⁹ United Nations Centre for Regional Development

Table-2.1: Comparative Data on E-readiness

Country	Literacy Rate	Telecom Penetration %	Internet Penetration %	E-readiness Score
Cambodia	73.6	0.25	0.3	..
China	90.9	20.92	8.5	3.85
Fiji	92.0	12.35	7.1	..
Hong Kong	93.0	55.51	69.2	8.32
India	61.0	4.63	4.5	4.17
Japan	99.9	58.57	67.2	7.42
Mongolia	..	5.17	0.1	7.73
Pakistan	48.7	2.66	2.1	2.74
Philippines	92.6	4.00	9.1	2.93
Sri Lanka	90.4	4.42	1.4	4.03
South Korea	97.9	47.24	67.0	3.80
Thailand	92.6	10.55	12.7	4.69

Source: Bhatnagar, 2006

Box-1

Seoul Metropolitan Government Online Procedures Enhancement for Civil Applications (OPEN) system that discloses the administrative procedures, that are susceptible to improprieties, and allows the citizens to monitor the status of their applications on the internet. The system was opened to the public in 1999. It was an attempt to attack corruption at its source by eliminating inconsistent regulations. Officials did not wholeheartedly welcome the OPEN system since it reduced their discretionary power and increased the workload for inputting data into the system. Initially 26 services that had a history of corruption scandals, complicated services that inconvenienced the citizens, and services

predisposed to receiving solicitation for special favours were selected for making processing information available to applicants. Subsequently another 28 services were added with a total of 54 services, including nearly all services that are prone to improprieties. Strong commitment of the leadership at the top, Mayor of city, and perseverance by the implementing administrative unit, Audit and Inspection Bureau, were necessary to make the OPEN system happen. The system makes available real time information on the status of an application, tracking its progress until its finalization. The approval dates and contents of the investigation by the chief clerk, the section chief, and the director as well as the schedule timetable, and detailed descriptions for returned documents or incomplete documents are made available to the applicant as the decisions occur.

Source: Seoul Metropolitan Government

The OPEN system in South Korea is a revolutionary step for a developing country. It has made processing of applications transparent and the processing authority accountable. Transparency and accountability have in turn reduced corruptions in applications processing. The use of videoconference in China for interviewing migrant workers is an innovative idea. It saves travel costs and prevents wage loss of poor migrant workers.

The state government of Karnataka has taken a leadership role in introducing e-governance in India. The state government is committed to implement e-governance in every department and integrate them to facilitate availability of information from the elites and the haves to the common people. Initially the state government introduced e-governance in the Bhoomi (Land Records) and Mukhya Vahini offices (Chief Minister's Secretariat). Bhoomi, a government-to-citizen initiative is targeting farmers, pursues the objective of making land records easily available to farmers at an affordable price. Mukhya Vahini, a government-to-government Management Information System (MIS), is designed to be the digital cockpit for every decision maker in Karnataka. The system supports the decentralized nature of governance in Karnataka.

2.4 E-government: Bangladesh Perspective

Computerization of government offices of Bangladesh has taken place of late. Today most of the government offices have computers. But the scene was not like today if we go back just twenty years. This machine has made our office works easier if we compare with manual works. Still many government offices in Bangladesh do not have computers. The reason is simple: computerization of an office is not an easy task. The first issue to be taken care of is financing the expenditure of computerization. In a government office, installing one unit of computer would cost about one hundred thousand taka a few years ago although the cost was lower in a private organization. Today this cost has come down to nearly half of the previous cost.

The second issue is the skill of the government officials. The government officials in Bangladesh did not have the required skill for running a computer even a decade ago. But with the introduction of computer training programmes in the training institutes this scenario has changed rapidly. Now every training institute of the country adds computer-training module in their training programmes. As a result, IT-trained personnel in the government offices are on the rise.

Now-a-days computerizing a government office is not only about typing letters and documents. It has encompassed the idea of delivering government services to the citizens through electronic means using inter-connected computers. The concept of e-governance has got popularity rapidly in Bangladesh. Now e-governance is seen as a means of overcoming the problem of corruption and irregularity in government offices. It reduces cost and time of service delivery. A recent service delivery by a public company can be cited as an example of benefits of e-governance/e-business. The public mobile phone company *TeleTalk* could not manage the huge demands for its SIM cards. Because of the huge demand and limited supply citizens began to stand in a queue in front of the designated bank at late night. Soon the company posted the application forms in its website and the applicants collected the form from the internet. This helped the mobile phone company in managing the application forms in one hand, and customers could easily avoid the harassment by the opportunists. Another example was the use of the internet by the Ministry of Finance for receiving

public opinions about the annual budget for the fiscal year 2007-2008. The Finance Advisor of the Caretaker Government posted the annual budget in the Ministry's website for public scrutiny and asked the civil society, citizens to send their comments using the internet. The Finance Ministry has received hundreds of recommendations regarding the annual budget through the internet. These are some indicators of popularity of the ICT applications in Bangladesh.

Demands for services to be delivered electronically have risen over the years. To cope with these huge demands, government offices have gone not only for computerizing but also for automation and creation of web sites. A recent and the first-ever study of its kind titled "*Comprehensive Study of e-Government Initiatives in Bangladesh*" reveals some astonishing figures. The report of the study shows that 79% of Ministries/Divisions of the government are currently connected to the internet while the figure is 76% for the Departments/Corporations, and 75% for Academic Institutions. This can be seen as a success if we take into account the limited resource and time of initializing.

The same report shows that PC-Employee ratio at Ministry/Division level is 0.22. This ratio at the Department/Corporation level is 0.065 and in the Academic Institutions is 0.23. Internet-connected PC-Employee ratio at Ministry/Division level is 0.045. The same ratio at the Departments/Corporations level is 0.01 while in the Academic Institutions it is 0.1. Internet connection is made through dial-up in

79% offices at the Ministry/Division level, 77% offices at the Department/Corporation level and 42% offices in the Academic Institutions. Broadband connectivity is available in 11.6% offices at the Ministry/Division level, 10% offices at the Department/Corporation level and 8.3% offices in the Academic Institutions. Radio-link connectivity is available in 7% offices at the Ministry/Division level, 4.2% offices at the Department/Corporation level and 12.5% offices in the Academic Institutions. Six government offices are equipped with VSAT. About 40% offices at the Ministry/Division level have LAN facility. This figure is 36.8% for offices at the Department/Corporation level and 54% in the case of Academic Institutions.

Introduction of e-governance can be categorized in three forms: web presence, interaction, and transaction. Through web presence the government ministries or departments provide information in the internet. Through interaction the ministries or departments can give and receive information from the public. Through transaction these agencies can process administrative procedures involving the public using the internet. In some cases, e-governance in Bangladesh has penetrated in the first two categories. Still it is not pervasive. The last category is still out of the scene.

Chapter Three

FINDINGS

3.1 Introduction

Findings of the study are based on data collected using two different questionnaires administered to two different sets of respondents. In the first set of respondents attempts were made to measure level of understanding about e-governance of the respondents and the problems of implementation of e-governance in the government offices. For the second set of respondents another questionnaire was administered to attain the objectives of the study. Therefore, the second questionnaire addressed the issues relating to the objectives set out in the first chapter. Thus, the findings of the study are arranged in two parts. Part I discusses the findings of the first set of respondents with a comparison with relative findings of a study undertaken by the Support to ICT Task Force (SICT) Programme of the Planning Commission. Part II presents the main findings of the study, which begins with an analysis of the respondents. As the first set of respondents showed little knowledge on e-governance, in the second questionnaire the concept of e-governance was described in the form of a footnote with examples pertaining to Bangladesh perspective. Therefore, the respondents who possess little or no understanding of e-governance could have a look at the footnote and then answer the questions of the questionnaire.

Part I

3.2 Findings of Survey I

To know the perceptions of the government officials about e-governance an open-ended questionnaire was administered to thirty-three deputy secretaries (DS)¹⁰ to the government of Bangladesh. This sample survey on the mid-level government officials shows that they lack conceptual clarity about e-governance. Those who answered the questionnaire were not very clear about e-governance or e-governance activities. A very few of them have shown clear understanding about e-governance. In the first question they were asked to write down in a few words their understanding about e-governance. Out of the 33 officers, six officers did not answer the question and 27 officers wrote something. Those who wrote something on their understanding about e-governance were not all clear. The words they have used to mean e-governance, in many cases, were names of some office instruments or mode of communication like email, fax, internet, computer, telephone, website etc. These concepts can be taken as close to the concept of e-governance. But some of the concepts were not close to the meaning of e-governance. For example, two of the respondents understood e-governance as a system of security and safeguard for office management. Table-3.1 lists understanding of the respondents about e-governance. The next question was to list down if they had

¹⁰These officers were attending a course at BPATC and was asked to fill out a questionnaire on the 5th of June 2005

any e-governance activities in their offices. Sixteen respondents reported that they had e-governance activities in their offices, fifteen respondents replied in the negative, and two respondents avoided answering the question. Their understanding about e-governance activities was again names of some office instruments or mode of communication.

Table-3.1: Understanding about E-governance

Understanding about e-governance
E-mail, fax, internet
Management system
No file work, computer maintains documents
Services, procedures, scopes described and given in internet, customers can download if needed
Important phenomena
Office work performed through electronic media: computer, email
Electronic governance
Economical
Popular administration function
Most effective communication system
All types of latest devices for administration
Modernization of administration using computer, email, internet
Email, fax, internet, telephone, computer
System of security and safeguard for office management
Electronic media in office procedures
Information open to all
Website, internet
Using electronic media
Administration by internet
Effective tool to run office
Using computer, email in decision making
Use of ICT

They used the words like computer, email, fax, telephone, internet, website, LAN etc. to mean e-governance activities. The deputy secretaries are the mid-level civil servants to the government. Normally the civil servants who become deputy secretary possess relatively longer-term service experiences from the field level office i.e., upazila and district level. These officials have worked in various government offices in their past service life. By the time they become deputy secretary these civil servants become well aware of the problems in the field level offices.

Table-3.2: Problems Identified by Respondents (Survey)

Sl. No.	Types of Problems	Frequency
01	Shortage of knowledge about e-governance/shortage of trained and skilled manpower	11 (52%)
02	Lack of resources	6 (29%)
03	Shortage of e-governance equipments	6 (29%)
04	Negative attitude to e-governance by existing manpower of the government	3 (14%)
05	Shortage of electricity/power failure	3 (14%)
06	Unwillingness of higher authority to introduce e-governance in the government offices	2 (10%)
07	Limited use of internet in Bangladesh	1 (5%)
08	Lack of motivation	1 (5%)
09	Security	1 (5%)
10	Virus attack	1 (5%)

Therefore, the next question they were asked was to list down the problems of introducing e-governance in their offices. Twelve respondents did not answer this question or mentioned that they do

not understand the subject of e-governance. Twenty-one respondents mentioned some problems. Their responses are summarized in table-3.2 (see previous page). The findings of the above mentioned sample survey are commensurate with the findings of the study undertaken by the Support to ICT Task Force (SICT) Programme of the Planning Commission. The government offices that were surveyed under the project titled "Comprehensive Study of e-Government Initiatives in Bangladesh" identified the following hindrances (Table-3.3) to the successful implementation of e-government in Bangladesh:

Table-3.3: Problems Identified by Respondents (SICT)

Sl. No.	Types of Problems	Frequency
01	Lack of adequate training	69%
02	Lack of adequate hardware	59%
03	Insufficient maintenance	55%
04	Lack of telecom facilities	37%
05	Power failure	35%
06	Lack of ICT awareness	22%
07	Lack of legal infrastructure	22%
08	Lack of Bangla interfacing	21%
09	Fear of change	19%
10	Mindset against computers	18%
11	Lack of acceptance of IT system	10%

Source: Taifur: 2004

From the sample survey on mid-level government officials and also from the above-mentioned study it is clear that the government officials lack training in ICT. This is because the government was late in taking initiatives to introduce e-governance in its offices. The

government of Bangladesh declared its National Information and Communication Technology (ICT) Policy in October 2002. Though late, the government realized the importance of necessity of IT educated personnel in its offices. The National ICT Policy 2002 declared, "Preference shall be given to ICT literate candidates for the purpose of recruitment in public offices. ICT-literacy shall also be evaluated in the ACR of officials to ensure utilization of ICT in the public services" (Article 3.6.7).

The findings of the study undertaken by the SICT Programme reveals that at the ministry/division level, only 28% officers and 29% staff are trained in IT. This figure is lower in the case of department/corporation level and in the academic institutions. At the department/corporation level only 23% officers and 7% staff are trained in IT. In the academic institutions, percentage of officers trained in IT is as low as 6% and the percentage of IT trained staff is as low as 4%. The public offices lack the facility of in-house IT training. Only 28% of the ministries/divisions have in-house IT training facilities while 27% of the departments/corporations have such facilities. In the case of academic institutions this figure is a little bit more which is 50%. This is because of the fact that the academic institutions provide training to their students.

The second most important problems as is seen in the sample survey on mid-level government officials and in the study undertaken by the SICT Programme is lack of adequate resources/lack of

adequate hardware. It is true that introduction of e-governance in the public offices is expensive. The components of hardware - including establishing network and increasing telecom facilities - necessary to introduce e-governance are quite expensive. At the same time, it is also true that the cost of collection of a single piece of information from a public office or buying a service/product from the same outweigh the cost of introducing e-governance.

Lack of inadequate power supply is also identified as an important barrier on the way to introducing e-governance in Bangladesh. For better delivery of government services to the public through electronic means uninterrupted power supply is a must. But interruption in the power supply is a common feature in Bangladesh, which acts as a hindrance to the introduction of e-governance.

The other important problems that can be seen both in our sample survey and in the study of the SICT Programme include lack of IT awareness, unwillingness of the existing government manpower to accept the change that might come if e-governance is introduced in the public offices. The mid-level government officials have also made their higher authority responsible for not taking initiatives for introducing e-governance in the public offices.

Part II

3.3 Respondent Analysis

A structured questionnaire was administered to 254 cadre officials to the government of Bangladesh. The questionnaire was designed to elicit from the respondents information on the level of computerization of their offices, their threshold level of ICT knowledge, training on ICT, familiarity with the internet, attitude towards the acceptance of e-governance in their office procedures, and their thoughts on the relations between e-governance and corruption. Respondents of the questionnaire were a combination of entry-level officials as well as upper level decision makers. Table-3.4 shows rank of the respondents.

Table-3.4: Rank of Respondents

Rank	Frequency	Percent
Assistant Secretary or Equivalent Officers	238	93.7
Joint Secretary or Equivalent Officers	16	6.3
Total	254	100.0

Out of the 254 officers, 238 officers were at the rank of Assistant Secretary to the government or equivalent. Another 16 officers were Joint Secretaries to the government or equivalent. In terms of percentage, Assistant Secretary or equivalent officers constituted 94

percent while Joint Secretary or equivalent officers constituted 6 percent of the total.

Most of the respondents were from the district level offices. Their number was 154 and constitutes more than 60 percent of the total respondents. The second largest group was from the capital city. Their number was 71 and constitutes 28 percent of the total respondents. The smallest group of the respondents was from the Upazila level offices. Their number was found to be 29, which constitutes 11 percent of the total respondents. Table-3.5 shows locations of the offices of the respondents.

Table-3.5: Location of Office of the Respondents

Location of Office of the Respondents	Frequency	Percent
Capital city	71	28.0
District HQ	154	60.6
Upazila HQ	29	11.4
Total	254	100.0

Cadre distribution of the respondents shows that most of the respondents belong to the administration cadre. Table-3.6 (see next page) summarizes cadre distribution of the respondents.

Table-3.6: Name of Cadre of Respondents

Sl. No.	Name of Cadre	Frequency	Percent
1	Not Mentioned	1	.4
2	Administration	117	46.1
3	Forest	9	3.5
4	Postal	9	3.5
5	Telecom	7	2.8
6	PWD	9	3.5
7	Food	7	2.8
8	Information	7	2.8
9	Customs and Excise	2	.8
10	Taxation	2	.8
11	Audit and Accounts	1	.4
12	Police	8	3.1
13	Foreign Affairs	7	2.8
14	Economic	10	3.9
15	Roads and Highway	10	3.9
16	Railway	9	3.5
17	Family Planning	7	2.8
18	Livestock	12	4.7
19	Agriculture	20	7.9
	Total	254	100.0

It shows that 117 of total respondents were from the administration cadre, which constitutes 46 percent of the total. The second largest

group represented the agriculture cadre. Their number was 20 and it constitutes 8 percent of the total number. There were 12 respondents from the livestock cadre while 10 respondents from each of roads and highway cadre, and economic cadre. There were 9 respondents from each of railway, postal, PWD, and forest cadres. Eight respondents represented the police cadre. There were 7 respondents from each of the family planning, foreign affairs, food, information, and telecommunication cadres.

Sex distribution of the respondents was not properly identified. Out of the total respondents, 120 did not mention their sex while 114 mentioned their sex as male and 20 mentioned as female. Table-3.7 shows gender distribution of the respondents.

Table-3.7: Sex of the Respondents

Sex of the Respondents	Frequency	Percent
Not mentioned	120	47.2
Male	114	44.9
Female	20	7.9
Total	254	100.0

3.4 Availability of Computers for Civil Servants

Computer is the interface between the information / service providers and the users of the information / services. Therefore, computer is the basic element for office modernization and introduction of e-governance. Although internet can be accessed by the devices other than personal computers such as pagers, cable televisions and wireless telephones, for e-governance computer is a basic equipment. E-governance deals with massive data. To deal with these massive data there is no alternative to computer. The survey was designed to know how many of the respondents have computers in their offices. Indirect method was used to know the availability of computers in the offices of the respondents. The respondents were asked to give information on mode of typing of office documents. The following table shows mode of typing of office documents of the respondents:

Table-3.8: Mode of Typing of Office Documents

Mode of Typing	Frequency	Percent
Traditional Typewriter	36	14.2
Computer	147	57.9
Both	71	28.0
Total	254	100.0

Almost 60 percent of the respondents get their office documents typed using a computer. Another 28 percent respondents reported

that they get their office documents typed using both computer and traditional typewriter. It indicates that almost 88 percent offices of the respondents have computers in their offices. Only 36 respondents or 14 percent respondents get their office documents typed using traditional typewriter. Out of those 36 respondents 23 have their office at the upazila level, 11 at the district level, and 2 in the capital city. It shows that computers are less available to the civil servants at the upazila level. Table-3.9 shows cross-tabulation of office location of the respondents and their mode of typing of office documents.

Table-3.9: Office Location vs. Mode of Typing of Office Documents

Office Location	Mode of Typing			Total
	Traditional Typewriter	Computer	Both	
Capital city	2	61	8	71
District HQ	11	82	61	154
Upazila HQ	23	4	2	29
Total	36	147	71	254

The above table shows that out of the 29 Upazila level respondents, only 4 had computers in their office and another 2 had both computer and traditional typewriter. The findings show that the Upazila level civil servants have less access to computers in their offices.

Table-3.10: Cadre vs. Mode of Typing of Office Documents

Cadre	Mode of typing of office documents			Total
	Traditional Typewriter	Computer	Both	
Not Mentioned	0	1	0	1
Administration	3	70	44	117
Forest	2	3	4	9
Postal	1	3	5	9
Telecom	0	7	0	7
PWD	1	6	2	9
Food	0	4	3	7
Information	2	2	3	7
Customs and Excise	0	2	0	2
Taxation	1	1	0	2
Audit and Accounts	0	1	0	1
Police	0	6	2	8
Foreign Affairs	0	7	0	7
Economic	0	9	1	10
Roads and Highway	2	7	1	10
Railway	1	5	3	9
Family Planning	6	1	0	7
Livestock	10	1	1	12
Agriculture	7	11	2	20
Total	36	147	71	254

Table-3.10 shows cross-tabulation of cadre and mode of typing of the office documents of the respondents. Out of the 18 cadres, livestock and family planning lack computers in their offices. Out of the 12 livestock officials, 10 reported that they do not have computers in their offices. On the other hand, out of 7 family planning officials, 6 reported that they do not have computers in their offices.

3.5 Computer Knowledge of the Civil Servants

One of the prerequisites for introducing e-governance in government offices is computer knowledge of the civil servants. ITC equipments can be bought in a short notice provided that the necessary financial resources are in hand. But ICT knowledge of the people who will be dealing with the e-governance equipments cannot be imparted in a short notice. Computer operating knowledge needs to be imparted through training. Table-8 shows the elementary knowledge of computer operation.

Table-3.11: Elementary Computer Operating Knowledge

Level of knowledge	Frequency	Percent
Can open and shut down a computer	253	99.6
Cannot open and shut down a computer	1	.4
Total	254	100.0

Only 1 respondent out of 254 cannot open and shut down a computer. The first step in computer operation is to open and shut down a computer. To open and shut down a computer requires some skills and courage for acquiring further skills of e-governance. It is a good finding that the civil servants can open and shut down computers. The next step in computer operation is the ability to type documents in a computer. This typing skill is also necessary in e-governance operation. For effective e-governance operation, information has to be updated on continuous basis. Officers are needed to receive and send information online frequently. They need to reply email of the service seekers. Therefore, minimum-typing skills of the civil servants is essential for office automation and e-governance operation. Table-3.12 shows encouraging information that 98 percent of the civil servants can type documents in the computer.

Table-3.12: Typing Skill (I)

Typing skill	Frequency	Percent
Can type	249	98.0
Cannot type	5	2.0
Total	254	100.0

Only 5 respondents reported that they could type documents in a computer. Table-3.13 depicts cadre and location of these 5 respondents. Out of these 5 respondents 2 were from administration cadre, 2 were from livestock cadre and 1 from food cadre. Four of them were from district level offices and one from Upazila level office.

**Table-3.13: Typing Skill (II)
(Cannot type documents)**

Cadre	District	Upazila	Total
Administration	2	0	2
Livestock	1	1	2
Food	1	0	1
Total	4	1	5

Special computer training is needed for effective e-governance initiative. Normally the civil servants receive computer training from the government sector training institutes as a part of their compulsory training courses. For example, participants of the core training courses of BPATC i.e., Foundation Training Course (FTC), Advanced Course on Administration and Development (ACAD), and Senior Staff Course (SSC) get training on basic computer operation. BPATC also offers special computer training to facilitate e-governance operation. The table below (table-3.14) shows number

of respondents who have received special training on computer operation.

Table-3.14: Special Computer Training

Special Computer Training	Frequency	Percent
Have special computer training	157	61.8
Do not have special computer training	97	38.2
Total	254	100.0

The above table shows that 157 respondents have received special training on computer operation. On the other hand, 97 participants reported that they did not receive any special training on computer operation. Table-3.15 (see next page) shows a cross-tabulation of cadre and status of computer training of the respondents. Out of the 117 respondents from the administration cadre 45 did not have special training on computer operation. The table reveals that respondents from the postal cadre, food cadre, economic cadre, family planning cadre, livestock cadre, and agriculture cadre tend to have no special training on computer operation.

Table-3.15: Cadre vs. Computer Training of Respondents

Cadre	Computer Training		Total
	Yes	No	
Not Mentioned	0	1	1
Administration	72	45	117
Forest	7	2	9
Postal	5	4	9
Telecom	5	2	7
PWD	7	2	9
Food	3	4	7
Information	6	1	7
Customs and Excise	2	0	2
Taxation	2	0	2
Audit and Accounts	1	0	1
Police	6	2	8
Foreign Affairs	4	3	7
Economic	4	6	10
Roads and Highway	10	0	10
Railway	7	2	9
Family Planning	2	5	7
Livestock	2	10	12
Agriculture	12	8	20
Total	157	97	254

Table-3.16 shows that among the 71 respondents from the capital city, 51 have received special training on computer operation. In other words, 72 percent of the capital city civil servants have received special training on computer operation. Out of the 154 civil servants from the district level offices, 95 have received special training in computer operation. In percentage point they are 62 percent of their total. Out of the 29 Upazila level civil servants, only 11 have received computer training, which is 38 percent of their total. From this analysis it becomes clear that capital city civil servants have more exposure to computer training than the district level civil servants. The district level civil servants are more exposed to computer training than the Upazila level civil servants. In other words, the Upazila level civil servants are less exposed to computer training than the district level civil servants and the capital city civil servants.

Table-3.16: Office Location vs. Computer Training

Office Location	Computer training		Total
	Yes	No	
Capital city	51 (72)	20	71
District HQ	95 (62)	59	154
Upazila HQ	11 (38)	18	29
Total	157	97	254

N.B. Figures within brackets indicate percentage.

3.6 Internet Connectivity in Office

Internet connectivity and e-governance are inseparably linked together. Most of the respondents reported that they have internet connection in their offices. This is a very surprising findings. Out of the 254 respondents, 138 reported that they have internet connection in their offices. They constitute 54 percent of the total number of respondents. On the other hand, 116 respondents reported that they do not have internet connection in their offices. They constitute 46 percent of the total number of respondents. Table 3.17 shows the statistics on internet connectivity in the offices of the respondents.

Table-3.17: Internet Connectivity in Office

<i>Internet connection</i>	Frequency	Percent
Have internet connection in office	138	54.3
Do not have internet connection in office	116	45.7
Total	254	100.0

Out of the 117 respondents from the administration cadre, 76 reported that they have internet connectivity in their offices, and 41 reported that they do not have internet connection in their offices. Forest cadre, PWD cadre, food cadre, taxation cadre, railway cadre, family planning cadre, livestock cadre, agriculture cadre have shown less internet connectivity in their offices. Table-3.18 lists cadre versus internet connectivity status.

Table-3.18: Cadre vs. Internet Connections

Cadre	Internet Connectivity		Total
	Yes	No	
Not Mentioned	0	1	1
Administration	76	41	117
Forest	2	7	9
Postal	7	2	9
Telecom	7	0	7
PWD	3	6	9
Food	1	6	7
Information	4	3	7
Customs and Excise	2	0	2
Taxation	0	2	2
Audit and Accounts	1	0	1
Police	5	3	8
Foreign Affairs	7	0	7
Economic	8	2	10
Roads and Highway	7	3	10
Railway	1	8	9
Family Planning	0	7	7
Livestock	2	10	12
Agriculture	5	15	20
Total	138	116	254

On an average 54 percent office of the respondents are connected with internet. Offices of the capital city show more internet connections than the district offices. On the other hand, the district offices show more internet connection than Upazila offices. Table-3.19 shows a cross-tabulation of office location and internet connections. It depicts that 77 percent of the capital city offices has internet connections. At the district level, 52 percent office has internet connections. The Upazila level offices show a dismal picture where only 10 percent office has access to the internet.

Table-3.19: Office Location vs. Internet Connections

Office Location	Internet connection in office		Total
	Yes	No	
Capital city	55(77%)	16	71
District HQ	80(52%)	74	154
Upazila HQ	3(10%)	26	29
Total	138(54%)	116	254

3.7 Familiarity with and Attitude towards the Internet

Most of the respondents had familiarity with the internet. Out of the total of 254 respondents, 222 reported that they had used the internet. They constitute 87 percent of the total respondent. On the other hand, 32 respondents reported that they had not used the internet. They constitute 13 percent of the total number of respondents. Table-3.20 shows familiarity of the respondents with

the internet. The high rate of familiarity with the internet is a result of attending training courses of the public sector training institutes. The compulsory courses of the public sector training institutes include training modules on computer and ICT. Therefore, the participants of the compulsory training courses become familiar with the internet when they attend those training programmes.

Table-3.20: Familiarity with the Internet

Familiarity with Internet	Frequency	Percent
Familiar wit internet	222	87.4
Not familiar with internet	32	12.6
Total	254	100.0

A cross tabulation of office location and familiarity with the internet of the respondents (see table-3.21, the next page) shows that only 8 percent of the capital city respondents does not have familiarity with the internet. As we go further towards the frontier of the administrative circle we find that 10 percent of the district level respondents and 38 percent of the Upazila level respondents does not have familiarity with the internet.

Table-3.21: Office Location vs. Familiarity with the Internet

Office Location	Familiarity with Internet		Total
	Yes	No	
Capital city	65	6(8%)	71
District HQ	139	15(10%)	154
Upazila HQ	18	11(38%)	29
Total	222	32(13%)	254

Although familiarity with the internet and being able to use email are two different skills, more or less the skills are of same category. Skills of using the internet help using email. Table-3.22 shows familiarity of the respondents with email i.e., they can reply an email. Out of the total respondents, 201 reported that they are familiar with email. In percentage terms, they are 79 percent of the total. On the other hand, 53 respondents reported that they can not use emails and they constitute 21 percent of the total.

Table-3.22: Familiarity with Email

Familiarity with Email	Frequency	Percent
Familiar with Email	201	79.1
Not familiar with Email	53	20.8
Total	254	100.0

A cross-tabulation of familiarity with the internet and familiarity with email reveals that 22 out of the 222 respondents who are familiar with the internet can not reply an email. On the other hand, out of the 32 respondents who are not familiar with the internet, 31 can not reply an email as well. Table-3.23 shows a cross-tabulation of familiarity with the internet and familiarity with email.

Table-3.23: Familiarity with Internet vs. Familiarity with Email

Familiarity with Internet	Familiarity with Email		Total
	Familiar	Not Familiar	
Familiar	200	22	222
Not Familiar	1	31	32
Total	201	53	254

The respondents possess positive attitude towards the internet. This positive attitude towards the usage of internet is needed for effective introduction of e-governance in governmental procedures. Table-3.24 (see next page) shows attitudes of the respondents towards the usage of internet. All most all of the respondents, 99 percent, believe that usage of internet will bring benefit to our nation. Out of the 254 respondents only 2 think that internet will not benefit the nation.

Table-3.24: Attitude towards Internet

Attitude towards Internet	Frequency	Percent
Nation will benefit from internet	252	99.2
Nation will not benefit from internet	2	.8
Total	254	100.0

3.8 Attitude towards Introduction of E-Governance

For any administrative reforms support of the civil servants is essential because they are the agents through whom reforms are carried out. In other words, they are the implementers of any administrative reform process. If the civil servants do not accept the reforms initiatives wholeheartedly, these initiatives can not bring the expected results. The present research findings show some encouraging facts about reforms through introduction of e-governance. The civil servants are highly in favour of quick introduction of e-governance in the administrative procedures. Therefore, it can be assumed that there will be no resistance from the civil servants for administrative modernization using e-governance. Table-3.25 (see next page) shows attitudes of the respondents towards introduction of e-governance in administrative procedures. The respondents were asked if they think that the government of Bangladesh should go for quick implementation of e-governance in its offices. Out of the 254 respondents, 249 or 98 percent have shown positive attitude towards this question. Only 5 respondents or 2 percent have replied in the negative.

Table-3.25: Attitude towards Introduction of E-governance

Attitude	Frequency	Percent
Government should introduce e-governance	249	98.0
Government should not introduce e-governance	5	2.0
Total	254	100.0

It is generally believed that introduction of e-governance in the administrative procedures brings about transparency and accountability in every transaction. The service seekers can track the real time status of the applications for desired services. Therefore, transparency and accountability in the transaction process reduces susceptibility of improprieties of services that are prone to this tendency. The respondents were asked whether they believe that introduction of e-governance in the administrative procedures are capable of reducing corruption. Almost all of them (97%) believe that introduction of e-governance will help in reducing corruption in Bangladesh. Table-3.26 (see next page) shows responses of the respondents to this end.

Table: 3.26: Opinion on E-governance and Corruption

E-governance and Corruption Relations	Frequency	Percent
E-governance will help reduce corruption	246	96.9
E-governance will not help reduce corruption	8	3.1
Total	254	100.0

Chapter Four

DOMAR UPAZILA: A Case Study

4.1 Introduction

The case study was conducted on Domar upazila of Nilphamari district. A structured questionnaire was administered to all class-I and class-II officers of the upazila. The questionnaire is attached at the end of this report. A total of 27 officers of different offices of the upazila were interviewed. Among them 25 were male and 2 were female. Table-4.1 shows sex distribution of the respondents.

Table-4.1: Sex Distribution of Respondents

Sex	Frequency	Percent	Cumulative Percent
Male	25	92.6	92.6
Female	2	7.4	100.0
Total	27	100.0	

In terms of age and job experience, the respondents were a divergent group. The minimum age was 28 years while the maximum was 55 years. The mean age was 43.48 years. Both median and mode ages were 41 years with a standard deviation of 8.559. On the other hand, minimum and maximum job experiences were 2 years and 32 years respectively. While the mean job experience was 16 years, median was 13 years and mode was 12 years with a standard deviation of 10.277. Table-4.2 shows age and job experience of the respondents. The findings reveal that the

upazila level officers were relatively young and they had a good span of time to serve the nation.

Table-4.2: Age and Job Experience of Respondents

Measures		Age of Respondents (Years)	Job experience of Respondents (Years)
N	Valid	27	27
	Missing	0	0
Minimum		28	2
Maximum		55	32
Mean		43.48	16.00
Median		41.00	13.00
Mode		41(a)	12
Std. Deviation		8.559	10.277

a Multiple modes exist. The smallest value is shown

4.2 Computerization

Computerization of office was measured through indirect ways. Participants were asked how their office documents were typed. Out of 27 respondents, 25 had responded the questions. Table-4.3 shows statistics on mode of typing of office documents.

Table-4.3: Mode of Typing of Office Documents

Typing Mode		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Typewriter	11	40.7	44.0	44.0
	Computer	5	18.5	20.0	64.0
	Both	9	33.3	36.0	100.0
	Total	25	92.6	100.0	
Missing		2	7.4		
Total		27	100.0		

Forty-four percent of the offices typed their office documents using traditional typewriter meaning 44% offices under the said upazila had no computers. Only 20% respondents reported that they typed their office documents using computers while 36% reported that they got their office documents typed using both traditional typewriter and computer. Therefore, it can be concluded that on the whole, 56% offices under the upazila had computers.

4.3 Computer Literacy

The majority of the officers of the public offices in the upazila were not capable of using a computer. They were asked to answer a question if they could use a computer. Only 37% reported that they were capable of using computers and the rests were not. Table-4.4 shows capability of the respondents to use a computer.

Table-4.4: Capability of Using a Computer

Answer	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	10	37.0	37.0	37.0
No	17	63.0	63.0	100.0
Total	27	100.0	100.0	

The upazila level officers of the public offices under the studied upazila were less likely to get institutional training on computer. Table-4.5 shows institutional training on computer of the upazila level officers of the public offices in Domar upazila. Only 26% of the respondents reported to have institutional training on computer. A

big majority of the officers - 74% - remained out of institutional training on computer.

Table-4.5: Institutional Training on Computer

Answer	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	7	25.9	25.9	25.9
No	20	74.1	74.1	100.0
Total	27	100.0	100.0	

As the officers lack institutional training on computer, very few of them had computer skills. The following table shows computer skills of the upazila level officers of the public offices in Domar upazila.

Table-4.6: Computer Skills of the Respondents

Computer Skills	Not at all		Little		To some extent		Very well	
	#	%	#	%	#	%	#	%
Microsoft Word	18	66.7	3	11.1	3	11.1	3	11.1
Microsoft Excel	19	70.4	5	18.5	2	7.4	1	3.7
Microsoft PowerPoint	23	85.2	1	3.7	3	11.1	-	-
Internet	24	88.9	1	3.7	1	3.7	1	3.7
E-mail	25	92.6	1	3.7	1	3.7	-	-
E-governance	25	92.6	1	3.7	1	3.7	-	-

Computer skills on Microsoft Word, Microsoft Excel, Microsoft PowerPoint, Internet, E-mail, and E-governance was measured using a 4-point scale of 'not at all', 'little', 'to some extent', and 'very well'. Only 3 respondents reported having 'very well' skills, another 3 respondents having 'to some extent' skills and another 3 having

'little' skills even in the most frequently used computer program – Microsoft Word. Most officers – 67% – did not have skills in Microsoft Word. Computer skills decline at a higher rate in the other programs i.e., Microsoft Excel, Microsoft PowerPoint, Internet, E-mail, and E-governance. In Microsoft Excel, 70% officers had 'not at all' skills and in Microsoft PowerPoint 85% officers had 'not at all' skills. In Internet, E-mail, and E-governance respectively 89%, 93% and 93% officers had 'not at all' skills.

Table-4.7: Internet Use

Have used Internet	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	3	11.1	11.1	11.1
No	24	88.9	88.9	100.0
Total	27	100.0	100.0	

Only 3 respondents or 11% reported that they had used internet (Table-4.7). Only 1 officer or 3.7% reported to have internet connection in his office (Table-4.8). Only 2 respondents reported to have email correspondence with other persons/institutions (Table-4.9).

Table-4.8: Internet Connection in Office

Have Connection	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	1	3.7	3.7	3.7
No	26	96.3	96.3	100.0
Total	27	100.0	100.0	

Table-4.9: Email Communication

Have Email Correspondence	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	2	7.4	7.4	7.4
No	25	92.6	92.6	100.0
Total	27	100.0	100.0	

4.4 Attitude towards Internet

To measure attitude of the upazila level public officers towards the use of internet in the public offices a 5-point scale was put against a set of statements. The five points were identified as 1 = 'strongly disagree'; 2 = 'disagree'; 3 = 'undecided'; 4 = 'agree'; and 5 = 'strongly agree'. Four statements were set for measuring attitude towards the use of internet of which two were positive statements and the other two were negative statements. Table-4.10 shows the four statements used to measure attitude towards the use of internet.

Table-4.10: Statements for Measuring Attitude towards Internet

Statements
1. Use of internet will mislead the youth
2. Use of internet will lead the country to development
3. Use of internet should be regulated in the country
4. Internet should be easily available in the country

On an average 37% respondents did not think that the use of internet will mislead the youth. In other words, they had shown a positive attitude towards the use of internet. A good number of respondents – 44% – opined that the use of internet will mislead the

youth. In other words, they had a negative attitude towards the use of internet, while 19% respondents were undecided in the matter (Table-4.11).

Table-4.11: Use of Internet Will Mislead the Youth

Scale Points	Frequency	Percent	Valid Percent	Cumulative Percent
1=strongly disagree	7	25.9	25.9	25.9
2= disagree	3	11.1	11.1	37.0
3=undecided	5	18.5	18.5	55.6
4=agree	11	40.7	40.7	96.3
5=strongly agree	1	3.7	3.7	100.0
Total	27	100.0	100.0	

No respondent disagreed with the statement that ‘use of internet will lead the country to development. Most of them (89%) believed that use of internet would lead the country to development. A small portion of them – 11% – was undecided about the matter (Table-4.12).

Table-4.12: Use of Internet Will Lead the Country to Development

Scale Points	Frequency	Percent	Valid Percent	Cumulative Percent
3=undecided	3	11.1	11.1	11.1
4=agree	5	18.5	18.5	29.6
5=strongly agree	19	70.4	70.4	100.0
Total	27	100.0	100.0	

Majority of the respondents – 59% – opined that ‘use of internet should be regulated in the country’. Around 26% respondents opined

that use of internet should not be regulated in the country while 15% of them were undecided (Table-4.13).

Table-4.13: Use of Internet should be regulated in the Country

Scale Points	Frequency	Percent	Valid Percent	Cumulative Percent
1=strongly disagree	7	25.9	25.9	25.9
3=undecided	4	14.8	14.8	40.7
4=agree	6	22.2	22.2	63.0
5=strongly agree	10	37.0	37.0	100.0
Total	27	100.0	100.0	

While most respondents had opined for regulated internet, a large majority of them had also opined, by contrast, for easy availability of internet in the country. Most of the respondents (89%) had agreed with the concept of easy availability of internet in the country while the rest 11% of the respondents were undecided. None of the respondents disagreed with easy availability of internet (Table-4.14).

Table-4.14: Internet should be easily available in the Country

Scale Points	Frequency	Percent	Valid Percent	Cumulative Percent
3=undecided	3	11.1	11.1	11.1
4=agree	4	14.8	14.8	25.9
5=strongly agree	20	74.1	74.1	100.0
Total	27	100.0	100.0	

Although data had been collected and entered into the SPSS Data Editor using the above-mentioned 5-point scale i.e., 1 = 'strongly disagree'; 2 = 'disagree'; 3 = 'undecided'; 4 = 'agree'; and 5 =

'strongly agree', for statistical analysis, the negative statements had been weighted using a reverse scale i.e., 5 = 'strongly disagree'; 4 = 'disagree'; 3 = 'undecided'; 2 = 'agree'; and 1 = 'strongly agree'. In other words, if the respondent had strongly agreed with this statement: *'use of internet will lead the country to development'*, he had given a 5-point to it. But if he strongly disagreed with this statement: *'use of internet will mislead the youth'*, he had given a 1-point to it. In both the cases the respondent shows a strong positive attitude towards the use of internet. Therefore, the negative statement 'strongly disagree' had been given a weight of 5-point for statistical analysis.

Thus, the score of a single respondent for all these four statements together could vary between 4 in the minimum and 20 in the maximum. The table below shows attitude towards the use of internet as a whole in terms of mean, median and mode.

Table-4.15: Attitude Towards the use of Internet

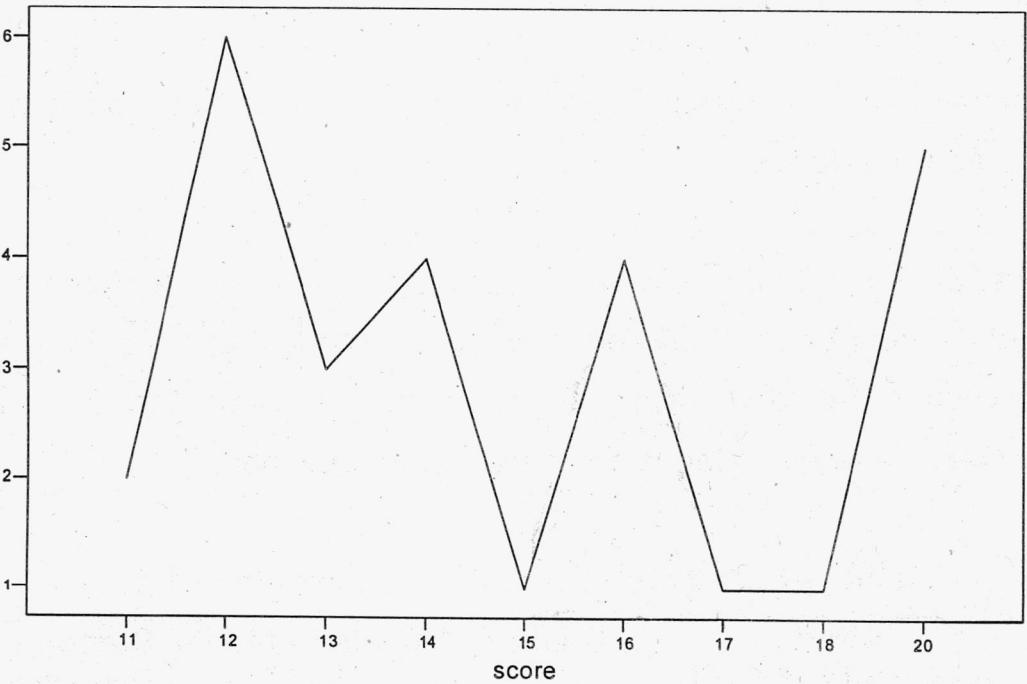
Attitude (In a scale of 4-20)	Mean	Median	Mode	Standard Deviation
Attitude towards internet	14.9259	14.0000	12.00	3.06250

The above table reveals that the mean of the scores of the participants was 15 which is greater than the mean of the scale value. But the mode value is 12. With a standard deviation of more

than 3, the participants greatly vary in their opinion. The figure below shows scores of the participants in a graphical presentation.

Figure-4.1: Attitude towards Internet (Score in a scale of 4-20)

4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
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4.5 Attitude towards E-governance

Another four statements had been used to measure attitudes of the respondents towards introduction of e-governance in the public offices. Again two of these four statements were positive and the other two were negative. Table-4.16 shows the four statements.

Table-4.16: Statements for Measuring Attitude Towards E-governance

Statements
1. Introduction of e-governance will cause downsizing the government which should not be accepted
2. Introduction of e-governance is necessary to bring about accountability and transparency in administration
3. Introduction of e-governance is not necessary in our country
4. Introduction of e-governance will bring speed in administration and the country will proceed to development

A large number of officials believed that introduction of e-governance would cause downsizing in the government, which was unacceptable. They constitute almost 45% of the total. Only 33% respondents disagreed with the concept while 22% were undecided (Table-4.17).

Table-4.17: Introduction of E-governance will Cause Downsizing in the Government, which should not be accepted

Scale Points	Frequency	Percent	Valid Percent	Cumulative Percent
1=strongly disagree	9	33.3	33.3	33.3
3=undecided	6	22.2	22.2	55.6
4=agree	5	18.5	18.5	74.1
5=strongly agree	7	25.9	25.9	100.0
Total	27	100.0	100.0	

Although nearly half of the respondents believed that e-governance would cause downsizing in the government which was not acceptable, most of the respondents – 85% – believed that e-governance was necessary to bring accountability and transparency

in administration. Only a small number of respondents – nearly 15% – stayed undecided. None of the respondents disagreed with the concept (Table-4.18).

Table-4.18: Introduction of E-governance is Necessary to Bring Accountability and Transparency in Administration

Scale Points	Frequency	Percent	Valid Percent	Cumulative Percent
3=undecided	4	14.8	14.8	14.8
4=agree	1	3.7	3.7	18.5
5=strongly agree	22	81.5	81.5	100.0
Total	27	100.0	100.0	

Almost 82% of the respondents did not agree with the statement that 'introduction of e-governance is not necessary in our country'. In other words, they wanted introduction of e-governance in the country. Only a few of them – 7% – agree with the above statement or they thought it was not necessary to introduce e-governance in the country while 11% of respondents were undecided (Table-4.19).

Table-4.19: Introduction of E-governance is not necessary in our Country

Scale Points	Frequency	Percent	Valid Percent	Cumulative Percent
1=strongly disagree	20	74.1	74.1	74.1
2=disagree	2	7.4	7.4	81.5
3=undecided	3	11.1	11.1	92.6
4=agree	2	7.4	7.4	100.0
Total	27	100.0	100.0	

Respondents had shown a strong positive attitude to the introduction of e-governance in the country in the following table (Table-4.20). Nearly 82% of the respondents strongly agreed that ‘introduction of e-governance will bring speed in administration and the country will proceed to development’. Only 7% respondents disagreed with the statement while 11% respondents were undecided.

Table-4.20: Introduction of E-governance will Bring Speed in Administration and the Country will Proceed to Development

Scale Points	Frequency	Percent	Valid Percent	Cumulative Percent
2=disagree	2	7.4	7.4	7.4
3=undecided	3	11.1	11.1	18.5
5=strongly agree	22	81.5	81.5	100.0
Total	27	100.0	100.0	

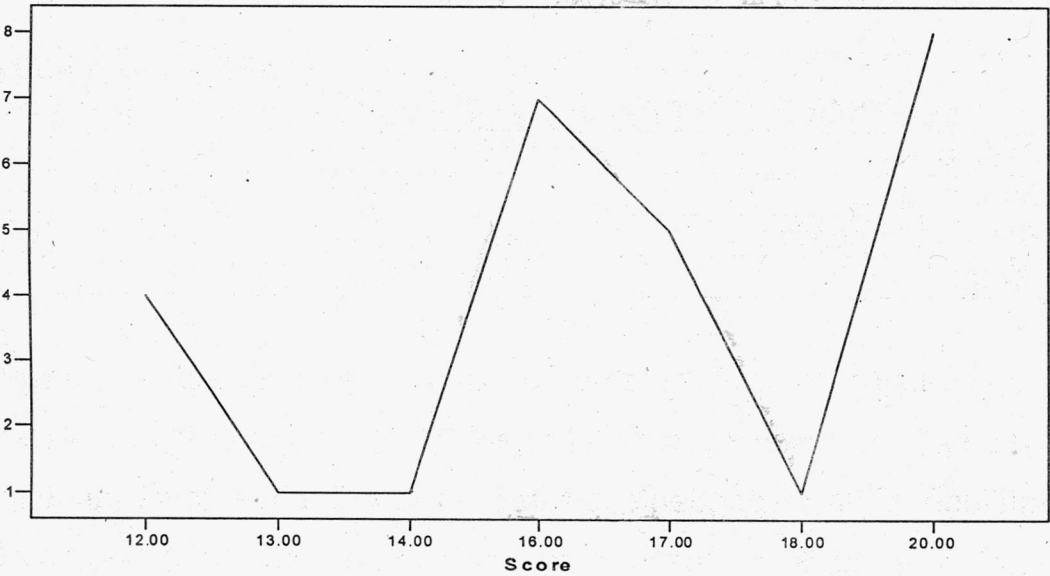
Again, using the same method applied to measure attitude towards internet, the following table (Table-4.21) shows statistical results of attitude of the respondents towards introduction of e-governance in a scale of 4-20. In this case, mean, median, and mode all had scored high meaning a highly positive attitude towards introduction of e-governance in the government offices. Figure-4.2 shows the findings in graphical presentation.

Table-4.21: Attitude towards E-governance

Attitude (In a scale of 4-20)	Mean	Median	Mode	Standard Deviation
Attitude towards internet	16.6667	17.0000	20.00	2.78733

Figure-4.2: Attitude towards Introduction of E-governance
(Score in a scale of 4-20)

4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
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Chapter Five

Conclusion and Recommendations

5.1 Findings Revisited

Almost 86 percent of the offices of the civil servants have computers. Comparatively the district level offices and most importantly the upazila level offices lack computerization. In cadre distribution, the livestock cadre and family planning cadre are prone to less computerization. The civil servants possess the threshold level of ICT knowledge. Almost 98 percent of the civil servants are accustomed to use computers. About 62 percent of the civil servants have special training on computer operation. Nearly 54 percent offices of the civil servants have internet connection. Capital city level offices are more likely to have internet connection, which is 77 percent. The percentage decreases at the lower tier offices. The district offices show 52 percent internet connection and the upazila offices show only 10 percent internet connection. Almost 87 percent of the civil servants are familiar with internet. Upazila level civil servants are less likely to be familiar with internet. Nearly 79 percent of the civil servants are familiar with email. The survey on cadre officials and the case study on Domar upazila of Nilphamari district reveal identical results regarding computerization of upazila level public offices and ICT knowledge of the officers working in upazila offices of the government. The upazila offices are less computerized and the officers lack training on ICT resulting in less computer skills in their possession.

The research findings show revolutionary attitudes of our civil servants with regard to usage of internet and introduction of e-governance in administrative procedures. More than 99 percent of the respondents believe that the nation will be benefited from the usage of internet. Almost all of the respondents, 98 percent, believe that the government should introduce e-governance in administrative procedures without delay. They (97 percent of the civil servants) believe that introduction of e-governance will help in curbing the endemic corruption in Bangladesh. The case study findings are in line with the findings of the survey on cadre officials as to attitude towards the use of internet and introduction of e-governance in government office.

5.2 Conclusion

Modernization of public administration through introduction of e-governance in administrative procedures is taking place globally. Introduction of e-governance in administrative procedures makes service delivery to the citizens easier and quicker as well as transparent and accountable. Therefore, ICTs are considered effective instruments to combat corruption. Bangladesh government has a good ICT policy. For effective implementation of the ICT policy our public administration needs a committed and capable workforce. Although the findings of the study show a marginal understanding of the civil servants on e-governance, of course, the study shows some

other encouraging indicators of a capable workforce in the public administration.

5.2 Recommendation

The upazila level offices of the government are the frontiers of service delivery to the citizens. These offices have a large interface with the people. Therefore, these offices should be the prime targets of any e-governance initiative. These offices should be computerized and the officers who will be working in these offices should be trained in first priority. The upazila level offices of the civil servants are less likely to have internet connection. Necessary infrastructure has to be built in order to have greater access to the internet of these offices. Among the upazila level offices livestock office, agriculture office, family planning office have greater interface with the citizens. Therefore, these offices should get first priority of the e-governance initiatives of the government.

The public sector training institutions should design and implement special training courses on ICT applications including e-governance. The existing compulsory training courses of these training institutions should add training modules on ICT applications including e-governance.

Reference:

Aminuzzaman, Salahuddin M., *Government or Donor-Who sets the Governance Reform Agenda?: A Critical Review of Bangladesh Experience*, Paper presented to NAPSIPAG – NCPAG International Conference on Public Administration and Governance at the Forefront of Change: Dimensions, Dynamics, Dysfunctions and Solutions, 5-7 December 2007, Manila, Philippines.

Bhatnagar, Subhash, *Paving the Road towards Pro-poor e-Governance: Findings and Observations from Asia-Pacific Case Studies*, available at the following web address:

<http://www.iimahd.ernet.in/egov/ifip/jul2006/jul2006.htm>

Borins, Sanford, "On the Frontiers of Electronic Governance: A Report on the United States and Canada", *International Review of Administrative Sciences*, Volume 68 Number 2, June 2002, pp. 199-212.

Goldsmith, Stephen and Eggers, William D., *Governing By Network: The New Shape of the Public Sector*, Brookings Institution Press, Washington, D.C., 2004.

Hoque, Shah Mohammad Sanaul, *E-governance in Bangladesh: Initiatives and Challenges*, Institute of Bangladesh Studies, Rajshahi University, 2005.

Hossain, Farhad, "Scope of E-governance in Bangladesh: Present Challenges and Future Possibilities", in Salahuddin M. Aminuzzaman (ed.) *Governance and Development: Bangladesh and Regional Experiences*, Shrabon Prokashani, Dhaka, 2006, pp. 147 – 164.

Human Development Centre, the Mahbubul Haq, *Human Development in South Asia: The Crisis of Governance*, University Press Limited, Dhaka, 1999.

Khan, Mohammad Mohabbat, "Public Administration", in Ahmed, Mohiuddin (Ed.), *Bangladesh in the New Millennium*, Community Development Library, Dhaka, 2000, pp. 63 – 80.

National Information and Communication Technology (ICT) Policy, 2002, Ministry of Science and Information and Communication Technology, Government of the People's Republic of Bangladesh.

Planning Commission, *Comprehensive Study of e-Governance Initiatives in Bangladesh, ...?*

Robert LaPorte, Jr., "Governance and Public Administration", in Hye, Hasanat Abdul (ed.), *Governance: South Asian Perspectives*, University Press Limited, Dhaka, 2000, pp. 183 – 201.

Rosenbaum, Allan and Gajdosova, Ludmila, "State Modernization and the New Public Administration", in Allan Rosenbaum and Ludmila Gajdosova (Ed.) *State Modernization and Decentralization – Implications for Education and Training in Public Administration: Selected Central European and Global Perspectives*, United Nations, Slovakia, 2003, pp. 3-11.

Seoul Metropolitan Government, *Online Procedures Enhancement for Civil Applications*, at <http://unpan1.un.org/intradoc/groups/public/documents/APCITY/UNPAN012319.pdf> accessed on 8 May 2008.

Siddiqui, Kamal, *Local Governance in Bangladesh: Leading Issues and Major Challenges*, University Press Limited, Dhaka, 2000.

Snellen, Ignace "Electronic Governance: Implications for Citizens, Politicians and Public Servants", *International Review of Administrative Sciences*, Volume 68 Number 2, June 2002, pp. 183-198.

Taifur, SASM, *Comprehensive Study of e-Government Initiatives in Bangladesh*, Planning Division, Ministry of Planning, Government of Bangladesh, 2004.

Thirkell-White, Ben, "The IMF, Good Governance and Middle-Income Countries", *European Journal of Development Research*, Vol. 15, No. 1, June 2003, pp. 99-125.

Transparency International, *Global Corruption Report 2003: Special Focus: Access to Information*, Profile Books Limited, London, 2003.

Turner, Mark and Hulme, David, *Governance, Administration and Development*, Kumarian Press, Hong Kong, 1997.

Problems of introducing e-Governance in Bangladesh: A Study on
Government Offices
(A questionnaire for preliminary data)

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(N.B. Data collected through this questionnaire will be used for academic purpose only.)

[Questionnaire for main survey]
 Bangladesh Public Administration Training Centre
 Savar, Dhaka

[This questionnaire is designed to know computer & ICT knowledge of the participants. Findings will be used for academic purpose in BPATC. Please provide true information regarding your computer and ICT exposure.]

1. Your Designation:
 Name of your office:
 Office Location:
2. How are the office documents typed in your office?

☐ Using the traditional typewriter, ☐ Using a computer
3. Can you **turn on** and **shut down** a computer yourself? ☐ Yes ☐ No
4. Can you type a document in a computer? ☐ Yes ☐ No
5. Did you ever receive any computer training? ☐ Yes ☐ No

 If yes, please name below the **course** you attended and the **institution**:
 I.
 II.
6. Do you have Internet connection in your office? ☐ Yes ☐ No
7. Have you ever used the Internet? ☐ Yes ☐ No

 If yes, can you reply *e-mail* yourself? ☐ Yes ☐ No
8. Do you think that the use of the Internet will bring benefit to our nation? ☐ Yes ☐ No
9. Do you think that the Government of Bangladesh should go for quick implementation of E-governance¹¹ in its offices? ☐ Yes ☐ No
10. Do you think that the introduction of E-governance will help reduce corruption? ☐ Yes ☐ No

¹¹ E-governance means the electronic mode of service delivery to the people. Using the Internet, E-governance enables transaction, and sharing of information online between the government offices, between the government and the citizens, and between the government and the businesspeople. It quickens service delivery and brings in transparency in day-to-day activities of the government. For example, online application for the BCS jobs can quicken the present manual process, reduce the cost of applying, and reduce the harassment of the applicants. Automation of government offices, and ICT knowledge and skills of the government officials are the prerequisites to E-governance.

বাংলাদেশ লোক-প্রশাসন প্রশিক্ষণ কেন্দ্র
সাভার, ঢাকা।

উপজেলার জন্য প্রশ্নমালা

["Problems of Introducing E-governance in Bangladesh: A Study on Government Offices" শীর্ষক গবেষণাকর্মের প্রশ্নমালা। এই প্রশ্নপত্রের মাধ্যমে গৃহিত তথ্যসমূহ শুধুমাত্র গবেষণার কাজে ব্যবহার করা হবে। সঠিক তথ্য প্রদানের জন্য আপনাকে অনুরোধ করা হলো।]

- ১। আপনার (তথ্যপ্রদানকারীর) অফিসের নামঃ
- ২। আপনার নাম (ঐচ্ছিক)ঃ
- ৩। আপনার পদবীঃ
- ৪। সর্বশেষ জন্মদিনে আপনার বয়স ছিলোঃ বছর।
- ৫। সরকারী চাকুরিতে আপনার অভিজ্ঞতাঃ বছর।
- ৬। আপনার লিঙ্গঃ
- ১ পুরুষ ২ মহিলা
- ৭। আপনার অফিসের চিঠিপত্র কিভাবে টাইপ করা হয়?
- ১ টাইপরাইটার দিয়ে ২ কম্পিউটার দিয়ে ৩ উভয় দিয়ে
- ৮। আপনি কি কম্পিউটার ব্যবহার করতে জানেন/পারেন?
- ১ হ্যাঁ ২ না
- ৯। কম্পিউটার-জ্ঞানবিষয়ক নিম্নের ছকটি পূরণ করুন। প্রযোজ্য ঘরে টিক চিহ্ন (✓) দিনঃ

কম্পিউটারবিষয়ক জ্ঞান	জ্ঞানের মাত্রা			
	মোটোও জানিনা (১)	অল্প জানি (২)	মোটামুটি জানি (৩)	ভাল জানি (৪)
MS Word				
MS Excel				
MS PowerPoint				
Internet ¹²				
E-mail ¹³				
E-governance ¹⁴				

¹² ইন্টারনেট বলতে বুঝায় পৃথিবীর বিভিন্ন দেশের শিক্ষা, বাণিজ্যিক, সরকারি ইত্যাদি প্রতিষ্ঠানসমূহের কম্পিউটারের আন্ত-যোগাযোগ ব্যবস্থা। কম্পিউটারে ইন্টারনেট সংযোগ থাকলে দূরের কম্পিউটারের সাথে যোগাযোগ করে খুব দ্রুত তথ্য আদান-প্রদান করা সম্ভব হয়।

¹³ ই-মেইল বলতে বুঝায় ইলেক্ট্রনিক মেইল (Electronic Mail), যা কম্পিউটার বা মোবাইল থেকে ইন্টারনেটের সাহায্যে অন্য কম্পিউটার বা মোবাইলে পাঠানো যায়।

¹⁴ ই-গভর্ন্যান্স বলতে বুঝায় ইন্টারনেটের মাধ্যমে গ্রাহকসেবা প্রদান। ই-গভর্ন্যান্স -এর মাধ্যমে (১) সরকারি অফিসসমূহের মধ্যে, (২) সরকারি অফিস ও নাগরিকের মধ্যে, এবং (৩) সরকারি অফিস ও ব্যবসায়ীদের মধ্যে খুব দ্রুত তথ্য আদান-প্রদান সম্ভব হয়। ফলে মানুষ যেকোনো জায়গা থেকে ইন্টারনেটের মাধ্যমে তথ্য আদান-প্রদান করতে পারে যা সময় ও অর্থের অপচয় কমায়।

১০। আপনি কি কখনও কম্পিউটার বিষয়ক প্রাতিষ্ঠানিক প্রশিক্ষণ নিয়েছেন?

☐ ১ হ্যাঁ

☐ ২ না

১১। আপনি কি কখনও ইন্টারনেট ব্যবহার করেছেন/করেন?

☐ ১ হ্যাঁ

☐ ২ না

১২। উক্ত হ্যাঁ হলে, কোথায় ও কিভাবে ইন্টারনেট ব্যবহার করেছেন/করেন?

১৩। আপনার অফিসে কি ইন্টারনেট সংযোগ আছে?

☐ ১ হ্যাঁ

☐ ২ না

১৪। দেশে বা বিদেশের কোনো ব্যক্তি বা প্রতিষ্ঠানের সাথে আপনার কি কোনো ই-মেইল যোগাযোগ হয়?

☐ ১ হ্যাঁ

☐ ২ না

১৫। নিম্নের বাক্যগুলো সম্পর্কে আপনার মতামত দিন। প্রযোজ্য ঘরটি বৃত্তাকারে [O] আবদ্ধ করুনঃ

[১=মোটোও সমর্থন করি না; ২=কিছুটা সমর্থন করি না; ৩=মতামত নাই; ৪=কিছুটা সমর্থন করি; ৫=সম্পূর্ণ সমর্থন করি]

বাক্য	মতামত				
১ ইন্টারনেটের ব্যবহার দেশের তরুন সমাজকে বিপথগামী করবে	১	২	৩	৪	৫
২ ইন্টারনেটের ব্যবহার দেশকে সমৃদ্ধির পথে নিয়ে যাবে	১	২	৩	৪	৫
৩ দেশে ইন্টারনেটের ব্যবহার নিয়ন্ত্রণ করা উচিত	১	২	৩	৪	৫
৪ ইন্টারনেটের ব্যবহার সারাদেশে সহজলভ্য করা উচিত	১	২	৩	৪	৫
৫ ই-গভর্ন্যান্স চালু হলে সরকারকে লোকবল ছাটাই করতে হবে যা কাম্য নয়	১	২	৩	৪	৫
৬ দেশের প্রশাসনে জবাবদিহিতা-স্বচ্ছতা আনতে ই-গভর্ন্যান্স চালু করা উচিত	১	২	৩	৪	৫
৭ আমাদের দেশে ই-গভর্ন্যান্স চালু করার দরকার নাই	১	২	৩	৪	৫
৮ ই-গভর্ন্যান্স চালু হলে প্রশাসন গতিশীল হবে, দেশ সমৃদ্ধির পথে এগুবে	১	২	৩	৪	৫