

Report On  
Digital Public Services of Bangladesh

By

Shah Mohammad Waliullah  
Student ID-18282034

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## **Declaration**

It is hereby declared that

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

**Student's Full Name & Signature:**

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**Shah Mohammad Waliullah**  
Student ID-18282034 (MPSM)

**Supervisor's Full Name & Signature:**

---

**Shanawez Hossain, Ph.D**  
Director, Executive Development Center(EDC)  
Head of Capacity Building & Partnership  
Assistant Professor  
BRAC Institute of Governance and Development (BIGD)  
BRAC University

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## **Executive Summary**

The Government of Bangladesh is working to achieve Digital Bangladesh Vision 2021 by establishing the Seventh Five-Year Plan (2016-2020) and the National ICT Policy 2018. The Bangladesh government recognizes that the development of information and communication technology is an indispensable factor for the mid- to long-term growth of Bangladesh and is making efforts to improve the budget execution efficiency, mid- to long-term growth potential and administrative efficiency through e-Government. The role of ICT Division is to ensure universal access to ICT for all through research, development, successful utilization and digital management of ICT. National ICT Policy 2018 is the national strategy to implement Digital Bangladesh with vision “To expand and diversify the use of ICTs to establish a transparent, responsive and accountable government; develop skilled human resources; enhance social equity; ensure cost-effective delivery of citizen-services through public-private partnerships; and support the national goal of becoming a middle-income country within 2021 and join the ranks of the developed countries by 2041. The ICT Policy 2018 was a robust and well-designed plan that aided the transformation of the Bangladesh government to provide efficient, convenient and transparent services to people and businesses through ICT. Aligned with Digital Bangladesh, Government of Bangladesh has a strong willingness to establish e-Government for the betterment of public.

**Keywords:** Digital Bangladesh; e-Government; Public service; Vision 2021; e-Nothi

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## List of Acronyms

ICT	Information and Telecommunication Technology
USAID	United Nation Agency for International Development

UNDP	United Nation Development Programme
Gbps	Gigabits Per Second
GDP	Gross Domestic Product
a2i	Access to Informations
BSMMU	Bangabandhu Sheikh Mujib Medical University
BSTI	Bangladesh Standards and Testing Institution
GD	General Diary
WEF	World Economic Forum
e-GP	Electronic Govenment Procurement
PMIS	Project Management Information System
APA	Annual Performance Agreement
GRS	Grievance Redress System
IMED	Implementation Monitoring and Evaluation Division
e-CMS	e-Contract Management System
PROMIS	Procurement Management Information System
PMIS	Personnel Management Information System
iBAS	Integrated Budget and Accountion System
APAMS	Annual Performance Agreement Management System
NDMIS	National Disaster Management Information System
G2G	Government to Goverment
G2B	Government to Business
G2C	Government to Citizen
BADC	Bangladesh Agricultureal Development Corporation
OEMS	Overseas Employment Management System
SMS	Savings Management System
APA	Annual Performance Agreement

APAMS	Annual Performance Agreement Management System
BCC	Bangladesh Computer Council
BEZA	Bangladesh Economic Zone Authority
e-Gov CIRT	Bangladesh e-Government Computer Incident Response Team
BEPZA	Bangladesh Export Processing Zone Authority
BHTPA	Bangladesh Hi-Tech Park Authority
BIDA	Bangladesh Investment Development Authority
BNDA	Bangladesh National Digital Architecture
BBS	Bangladesh Bureau of Statistics
CCA	Controller of Certifying Authorities
EGDI	e-Government Development Index
e-GP	e-Government Procurement
e-GSC	e-Government Security Center
GIU	Governance Innovation Unit
GovNet	Government Network
IDI	ICT Development Index
LGD	Local Government Division
MoE	Ministry of Education
MoF	Ministry of Finance





# Chapter -1

## Introduction

### 1.1 Background

The Digital Bangladesh program was launched in 2009. It aims to be at the forefront of achieving Honorable Prime Minister Sheikh Hasina's vision of transforming Bangladesh to a digital economy by 2021 and a knowledge-based economy by 2041. The four pillars of Digital Bangladesh - Human Resource Development, Connecting citizens, Digital Government, and Promotion of ICT Industry - are playing a central role in aiding this fantastic growth story[1]. Today more than 120 Bangladeshi companies are exporting ICT products worth nearly USD 1 Billion Dollars to 35 countries. The Government has plan to take this to USD 5 Billion by 2023[2]. Access to Information of Bangladesh, with the support of the Information and Communications Technology (ICT) Division, USAID and UNDP Bangladesh, has introduced more than 16 digital services and platforms this year in line with its vision of transforming the country into digital Bangladesh[3].

Bangladesh is one of the few countries in Asia that has a huge youth population. Of its 163 million people, almost 65% are under the age of 25. This vast, young and strong human resource, however, is still lacking in the knowledge necessary to thrive in the competitive global market. The support is about connecting citizens by developing a burly facilitating background. The Government is committed to ensure 100% Internet connectivity by 2021[4]. The Government has already good progress with over 93 million internet subscribers, and 160 million mobile subscriptions throughout the nation which making Bangladesh the fifth largest mobile market in Asia Pacific, and the ninth largest in the world. They have ensured seamless connectivity through

2 submarine cable connections with 1,700 Gbps and 7 ITC connections with 400 Gbps[5]. The Government of Bangladesh has a plan to further enhance this by being an early adopter of 5G. By the end of 2020, it will have fiber optic connectivity up to our Union level, providing high speed Internet connectivity even to the remote villages. In order to ensure cost-effective space for companies interested in investing in Bangladesh.

Next step to drive the Digital Bangladesh engine forward is through e-Governance or Digital Governance. The Government has been proactively pursuing the digital dissemination of all of the government portals by the year 2023. The Government has developed the National Portal back in 2014, which now houses over 45,000 websites and services of different Government Offices[6]. The Government of Bangladesh already has developed over 5000 Digital Centers across the country to help provide the various Digital public services to the citizens at the last mile, addressing the issue of Digital Divide. They have issued over 100 million digital IDs to our citizens, which is one of the highest in the world. They also have established a Digital Service Accelerator, to expedite and facilitate the e-Services of all Ministries. The scale of digital governance in Bangladesh is tremendous in transforming our nation. Bangladesh has experienced tremendous growth in the last decade through digitalization of public services. Today, we experience nearly 8 percent GDP growth, as one of the fastest growing economies in the World[7].

Information & Communication Technologies changed the way of work as Government and Citizens. Government must evolve to improve their service experience, push new boundaries and open new opportunities to survive digital transformation in the era of Internet. In a bid to fulfill the aim to transform Bangladesh into a technologically advanced nation by 2021, the country has come a long way.

The digital revolution will facilitate new partnership models with businesses, non-governmental organizations, communities and individuals at multiple levels, beyond basic service delivery and internal integration. The Government must continue to leverage and adapt to the changes in technologies and demographics to provide the best possible public service to our people and customers. Generally, implementing e-Government leads holistic improvement on nations. It will directly affect the quality of public service, and it will affect whole nations with broader use of digital technology for overall.

The Prime Minister Sheikh Hasina inaugurated Access to Information "a2i" newly developed online-based platforms earlier in the year. The a2i in collaboration with the Department of Agriculture Extension has developed the digital platform "KrishiBatayon" (agriculture portal) and the "KrishakBandhu Phone Seba" for the expansion of the e-agriculture services across the country, said the a2i officials. The a2i has also launched the "333 Call Centre" with a motto "Government information and services, anytime" to provide information on procedures of receiving government services and redress of social problems. Any farmer included in the list of KrishiBatayon can ask any question related to agriculture by making a call to 3331.

Prodded by comparisons to banks and online retailers, governments at all levels have been enticed by the dramatically lower costs of a transaction online versus one involving mail, a telephone call centre, or in-person service facility. Yet such comparators have also masked a much more complicated story in Bangladesh and elsewhere featuring a complex public segmentation externally and the internal technological and governance challenges of re-organizing and offering services in more virtual and integrated formats. The advent of mobility further complicates this landscape since the term can be interpreted in one of two (partially

related) manners: first, as a newer online channel via mobile devices that accentuates the search for efficiency as information inquiries and transactions gravitate to such platforms where apps are beginning to rival portals as the main gateway to government services (here again not unlike the evolution of banking and retail); or secondly, as a wider paradigm shift associated with the advent of Gov 2.0 where mobility denotes new forms of public participation and collective engagement in shaping both service design and service evaluation [8]. Consistent with this second stream, the refashioning of service delivery within an “open government” context reflects this more outward orientation where innovation and collaboration rival efficiency as guiding principles and objectives [8][9].

With a view to enabling people to access different government services including utility bills and fees payment facilities through digital means, Access to Information (a2i) introduced eight major digital public services and platforms last year. In line with the government’s vision to transform the country into “Digital Bangladesh”, a2i under ICT Division with the support of the Cabinet Division and UNDP Bangladesh launched those services. Three digital one-stop services "ekSheba, ekPay and ekShop" with the theme “Contribution of digital Bangladesh: All solutions under one umbrella” were launched to enable people to access different government services, utility bills and fees payment facilities and e-commerce.

The one-stop service centre "ekSheba" will act as the platform for providing all digital government services. Currently, a total of 172 government services of 7,149 offices have been brought under the platform while service seekers have been divided into three categories citizens or institutions, businessmen, government officials and employees, the officials said. Gradually, all services (around 2,800) will be connected to the digital platform, which would play a vital

role in establishing e-governance by creating ways for online applications and receiving services. Any service seeker will be able to submit an online application by paying the fees online and check the latest status of the application as well. The “ekPay” brings the benefits of paying numerous bills from a single platform. It is a one-stop payment platform for easy and hassle-free payment of utility bills, educational fees and all other fees.

By registering with the ekPay’s website or mobile app, all people of the country can pay their required utility bills at any time through debit card, credit card, mobile banking, digital wallet, internet banking, digital centre or any agent point.

In addition, over a million essential products, including medicines, books, clothing, will be accessible from any part of the country. More than 4,000 Union Digital Centers are connected with ekShop. On the other hand, there are various services that were launched by Service Innovation Fund (SIF), such as developing “telephone based home palliative care service” in the Centre for Palliative Care at Bangabandhu Sheikh Mujib Medical University (BSMMU); introducing online General Diary, and Lost and Found service; services to address the mental health issues of women; introducing online KAIZEN training; and launching the e-cataloguing and standards sale for Bangladesh Standards and Testing Institution (BSTI).

To make the palliative care service popular in Bangladesh, the telephone-based Home Palliative Care Service was introduced during COVID-19, which will provide the patients with services such as, website portal, hotline service, video-call service, home care, and ensuring essential medicines for the patients.

The online General Diary (GD) service was introduced by SIF, and the lost and found service was also included. It will simplify the whole system of GD while the delivery of the final report will be faster.

The rising income inequality makes continuing provision of essential public services to all, i.e. independent of income levels, more important than ever. In 2013, the richest 10% of individuals earned 9.6 times the income of the poorest 10% of individuals, compared to 7.2 times in the 1980s. The profile of poverty is changing from pensioners in the 1980s to the youth and families with children today [10], and there is growing evidence of the “powerful and corrosive effects of inequality on economic growth, poverty reduction, social and economic stability and socially-sustainable development” [11]. Such provision is also considered a moral obligation and, in cases of “water, food, energy, income security, health services and other essential public goods and services,” a human right [12]. Recently, in addition to universality, quality and sustainability of public service provision are becoming a concern as well [13].

The provision of public service is increasingly challenged by diverse social needs, ageing societies, digitally informed populations, economic pressure, and unequal conditions for public service delivery existing within and across countries. For example, the failure of public service delivery in many developing countries is not just due to the scarcity of resources but also to the problems of incentives, accountability and governance that vary from one context to another [14]. Overcoming such challenges requires innovation in public service delivery that creates and maintains an eco-system of government, businesses, non-profits, universities, citizens, and other actors that participate in the provision, consumption, and intermediation in public service delivery; and bringing services closer to the consumers through, for example, multi-service centers and the use of diverse delivery channels. It also requires digitizing public services,

tailoring them to local needs, and delivering them through digital channels using new social and organizational innovation models [15]. The focus of this report is on public service innovation with digital technology.

The digital government aspires to leverage ICT to provide affordable, transparent public services to the poor and the underprivileged. Main target areas are agriculture, education, administration of land and water resources, social safety nets, disaster management, environmental changes, law enforcement and local governments.

## **1.2 Objectives and Research questions**

The objectives are to develop strategies for implementing e-Government and change the Bangladesh government's perception towards it. The initiative is also designed to follow the strategies for Digital Bangladesh in a middle term and reduce government corruption and improve public services as well as national competitiveness in a long term.

Digital Bangladesh is a political pledge to use modern technology to impact every aspect of public and personal lives. The transformative vision proposes the use of ICT to reduce poverty and develop human resources. It also emphasizes that ICT is essential to overcome economic, cultural and social issues the country is experiencing. It outlines the following four key priorities for achieving Digital Bangladesh.

Human resource development and connecting citizens form a foundation to implement a digital government composed of e-public services and e-administration and introduce ICT in businesses, which will enable better access to markets through the use of ICT, promotion of ICT business, and ICT export expansion.

a) To achieve the vision, Strategies and desired goals of e-Government in Bangladesh.

- b) To assess of the current status of e-Government readiness in Bangladesh.
- c) To take the strategic suggestions as To-Be model for formulating e-Government
- d) To execute the implementation plan
- e) To provide digital service accelerator

### **1.3 Methods and methodology**

This report was constructed through direct interview, performing several survey works within different government and non-government offices. The data were collected from different websites (<http://www.worldbank.org/>; <http://www.itu.int/>; <http://www.bcc.gov.bd/site/>; <https://bgnp.wordpress.com/> ; <https://a2i.gov.bd/>; <https://cabinet.gov.bd/>; <https://imed.gov.bd/>; <https://sid.gov.bd/>; <http://www.lged.gov.bd/>; <https://mopa.gov.bd/>), articles and survey reports (UN E-Government Survey 2018, 2016, 2014).



## **Chapter – 2**

### **Review of Literatures**

#### **2.1 General Introduction of Bangladesh**

Bangladesh is a country located in the South-East Asia. The country shares its borders with India and Myanmar (Burma). It is one of the most densely populated countries in the world (ranked 12th) - it has the world's 8th largest population of 163,882,000 and the total area of 147,570 km<sup>2</sup> (ranked 92<sup>nd</sup>)[16]. Its capital Dhaka is nearly 75% more dense than Hong Kong. The extremely overcrowded population even creates various issues such as traffic congestion and social safety issues.

Despite the global economic recession, Bangladesh continues to record a relatively high growth rate of around 7% and the number has been increasing since 2015-16. Its agriculture & manufacturing production and remittances from Bangladeshi working abroad are rising. Since the second half of 2015, the country's domestic demand as well as new investment has been growing. Bangladesh was ranked 99<sup>th</sup> in the Global Competitive Index announced by the World Economic Forum (WEF) [17].

According to the statistics by the Bangladesh Bureau of Statistics (BBS), in 2017-18, the tertiary (service) sector accounted for 56% of the country's GDP while the shares of the secondary (manufacturing) and primary (agriculture and fisheries) sectors were 30.17% and 13.82%, respectively. The BBS also reported in the Quarterly Labor Force Survey 2015-2016 that 43% of the employees in the country were active in the primary sector while 37% and 20% were involved in the tertiary and secondary sectors, respectively.

## **2.2 An Introduction to the IT environment of Bangladesh**

“Bangladesh Vision 2021” was announced in December 2008. The main goal is to become a middle-income country by 2021. Before the 2008 general elections, the Bangladesh Awami League (BAL) proposed Digital Bangladesh as action plans for the Bangladesh Vision 2021. The central government in turn developed the National ICT Policy 2009 which includes goals and action items required for realizing Digital Bangladesh. The country decided to utilize ICT to accomplish the national vision. With aids and support from the UN and donor agencies, the government is now implementing projects to realize Digital Bangladesh.

As part of such effort, the government started the Access to Information (a2i) program in 2007 with support of the UNDP and USAID. The program aims at improving public services through information and reducing inefficiencies in their delivery in terms of TCV - time, cost, and number of visits associated with obtaining government services.

## **2.3 ICT and e-Government Policies in Bangladesh**

While running many ICT-related projects, the government agencies are facing obstacles such as insufficient information sharing and delayed implementation. This seems to be attributed to a lack of strategic approaches based on a comprehensive plan for the information of public services. Bangladesh is focused on using and developing ICT for the implementation of its national vision.

### **Bangladesh Vision 2021**

The present Prime Minister of Bangladesh announced Bangladesh Vision 2021 in December 2008 to facilitate a participatory democracy, have an efficient, transparent system of governance, and become a middle-income country by 2021, the 50th anniversary of the country’s

independence. The vision includes eight inter-linked goals and 85 activities and standards for achieving the goals.

### **Digital Bangladesh**

As a strategic direction to achieve Bangladesh Vision 2021, the Bangladesh Awami League announced Digital Bangladesh before the 2008 general elections, emphasizing the importance of ICT-based development as a core element for establishing foundation for a knowledge-based society

Digital Bangladesh is a political pledge to use modern technology to impact every aspect of public and personal lives. The transformative vision proposes the use of ICT to reduce poverty and develop human resources. It also emphasizes that ICT is essential to overcome economic, cultural and social issues the country is experiencing. It outlines the following four key priorities for achieving Digital Bangladesh.

Human resource development and connecting citizens form a foundation to implement a digital government composed of e-public services and e-administration and introduce ICT in businesses, which will enable better access to markets through the use of ICT, promotion of ICT business, and ICT export expansion. The digital government aspires to leverage ICT to provide affordable, transparent public services to the poor and the underprivileged. Main target areas are agriculture, education, administration of land and water resources, social safety nets, disaster management, environmental changes, law enforcement and local governments.

## Chapter 3

### Analysis and Results

The results of survey are summarized as follows.

- Necessity on the dedicated organization for e-Government: necessary.
- Dedicated organization for e-Government: ICT Division.
- NDC should be in charge of e-Government resources management.
- Infrastructure for e-Government: insufficient.
- Necessity to share information: agree.
- Service priorities: (1) G2C (2) G2G (3) G2B
- Barriers in implementing e-Government: lack of ICT experts.

#### 3.1. Current Status of e-services in Bangladesh

The analysis of the current-status will help review the progress of the Bangladesh government's e-Government implementation effort and propose a future direction for implementation. Current status of e-Government readiness at Bangladesh Road and Transport Authority, Policies, Passport and Immigration, e-Government related legal framework and governance are reviewed in Bangladesh. E-Government Services and Infrastructure are assessed. Bangladesh's e-Government services can be categorized into G2G for inter-government operations and G2C and G2B for citizens and companies to examine services offered by government organization.

The Digital Service Accelerator Programme, a joint effort by a2i and the Cabinet Division, surveyed 53 ministries and divisions and 394 agencies to find 2,726 public services. Among them, 2,129 services are manual services and 597 services are Digital Services [1]. In other

words, about 22% of the public services are available online while 78% is provided offline. Most online public services are based on simple information retrieval [2].

Bangladesh's national portal [2] offers 587 e-services and 71 mobile services. There are 23 categories for e-services and 5 for the categories of mobile services. The project team assessed 587 e-services as an ordinary citizen user and identified whether the services are accessible or not. Among 587 e-Services, 467 e-Services are on service [3].

Pruning identical services, there are 365 e-Services available. Multiple organization uses identical services which we call shared service such as e-GP, e-File Management (e-filing system, Nothi), Personnel Data Sheet, Bangladesh Education Boards, PMIS, eForm and iVAS. 42 services are simply providing information or links of PDF and radio channel. 307 e-Services are for citizen/business services and 50 e-Services are for government administration. 8 e-services are shared by multiple organizations. Following table shows the number of e-Services in each category[5].

### **3.2 Shared e-services in Bangladesh**

Shared service is a service being used by multiple organization. Nothi, GRS, e-GP, PMIS are used by two or more government organizations. Shared services are provided to improve integrated services handled by multiple government organizations. Most shared services require inter-operability with other e-services.

#### **Nothi**

- Implementing Body: The Cabinet Division
- Nothi is an e-filing system to expedite the delivery of public services and deal with civil affairs and complaints faster, providing better public services to the public.

- The introduction of the system has allowed citizens to submit complaints and applications online at home, check the procedure and progress, and communicate with the government electronically, significantly cutting time and costs.

- Also, citizens can check the procedure and progress of an administrative service in real time, increasing transparency and accountability of public services.

- Documents stating legal obligations related to the operation of Nothi include the Secretariat Instruction-2014, Perspective Plan 2010-2021, and the Cabinet Division's gazettes published on May 8, 2016 and on October 4, 2016, and the Annual Performance Agreement (APA) 2017.

Nothi consists of the Applicable Upazila to Ministry for connecting central and local governments, the Digital Guard File, a file security component, Unique User ID, Official Seal, Soft Signature & Digital Signature. It mobile app supports both Android and iOS.

- Its main features include Multiple Searching Option, SMS & e-mail Notification, Single sign-on, Multi-role access, Citizen's Corner as well as Combined view of Note and Potro, Note Writing/Highlighting, Flagging, Reference Linking, Guard file Linking, Attachment Linking, Flow of Nothi, Searching of Nothi& note, Turning page, Thumbnail of pages.

### **Grievance Redress System (GRS)**

- Implementing Body: The Cabinet Division

The Grievance Redress System was developed to increase the accountability and transparency of public services. It is an institutionalized and organized method consisting of specified roles, rules, and procedures for systematically resolving complaints, grievances, disputes, or conflicts and provides an effective avenue for expressing concerns and achieving remedies for the public.

- The system also reduces the inefficiency of public service delivery, effectively addresses public concerns, and promotes a mutually constructive relationship. It also encourages citizens' engagement in public services and prevents any retaliations or threats for such engagement.
- The Grievance Redress System has a three-tier redressal mechanism. Grievances will be first responded or redressed by a GRS focal point. If no resolution or understanding is reached, they will be forwarded to one or more relevant organizations which will endeavor to address them in cooperation with the focal point. Lastly, grievances or complaints can be handled by a third-party organization. In other words, the GRS focal point will respond to and settle a grievance if possible. When cooperation among multiple agencies is required for resolution, the grievance will be forwarded to all relevant organizations for joint problem solving. When a third-party decision making is required, the grievance will be forwarded to a superior authority of the GRS focal point. When the cooperation with another ministry/agency or transfer of the grievance is required, the Cabinet Division will send it to relevant ministries or agencies.

#### **e-Government Procurement(e-GP)**

- Implementing Body: The Central Procurement Technical Unit - IMED
- The e-GP, Bangladesh's government procurement system, was deployed to facilitate transparent,accountable government procurement. It enables online procurement, simplifies procurement applications, reduces the number of visits to related agencies and costs associated with procurement application.
- The Web-based system manages the entire lifecycle of government procurement and records all procurement activities. It provides equal information to all potential bidders in Bangladesh and abroad and announces its latest procurement activities of all public organizations to the public in

an efficient manner. After the successful completion of the pilot operation, the system began to be expanded to other agencies in 2011.

- The Central Procurement Unit of IMED under the Ministry of Planning also promoted the simplification of procurement processes when expanding the e-GP system across the country, delivering a faster, more efficient procurement system.

- The e-GP system was implemented and has been operated based on the rationale provide by the Public Procurement Act 2006 and the Public Procurement Rules 2008. It includes the following components:

- Centralized Registration

- Workflow Management System

- e-Tendering (e-Publishing/e-Advertisement, e-Lodgement, e-Evaluation, e-Contract award)

- e-Contract Management System (e-CMS)

- e-Payments

- Procurement Management Information System (PROMIS)

- System and Security Administration

- Handling Errors and Exceptions

- Application Usability & Help

### **Personnel Management Information System (PMIS)**

- Implementing Body: The Ministry of Public Administration

- The Personnel Management Information System is a system to manage Bangladesh's public servants and officials. Its main features include the Personnel Dashboard for notifications, the Personnel Information for retrieving and updating personnel records, Add Transfer History for



registering personnel information, Transfer Information for searching for registered personnel information, Edit User Profile, and Change Password.

### **iBAS++**

- Implementing Body: The Ministry of Finance
- iBAS++ is a computer-based finance management system. Its adoption expedited the nation's finance reporting process. The existing iBAS was not integrated and ran two distinct systems, one for budget and the other for accounting and were missing essential documents and data. The budget and accounting systems were hosted on different main servers in different physical locations and ran separate programs.
- Budget and accounting systems of individual ministries and agencies were not integrated with the central accounting system, forcing users to manually compare the budget data of the ministry/agency and transaction data entered by the central system. iBas++ addressed the above issues by integrating budget and accounting systems and connecting the finance systems of local governments and ministries/agencies with the central system.

### **Annual Performance Agreement Management System (APAMS)**

- Implementing Body: The Cabinet Division
- The Annual Performance Agreement Management System manages project plans and performance of individual ministries/agencies on a yearly basis. The Annual Performance Agreement report contains the ministry's strategic objectives and plans for the year and performance indicators.

### **National Disaster Management Information System (NDMIS)**

- Implementing Body: The Ministry of Disaster Management and Relief

- On 29th April 1991, a devastating cyclone hit Chittagong, Cox's Bazar, Barisal, Noakhali, Patuakhali, Barguna and Khulna along with tidal bore of 5-8-meter-high with wind speed of 240 km/hour killing 150,000 people. After the devastated cyclone, the Bangladesh government announced the National Plan for Disaster Management 2010-2015 in 2010 and enacted the National Disaster Management Act 2012 in 2012. The National Disaster Management Information

### **3.3 Analysis of shared e-Services in Bangladesh**

There are 365 services identified as available e-services. E-Services are discriminated by 23 categories: 'Admission, Agriculture', 'Ask Your Question', 'Digital Center', 'Directory', 'Education', 'Exam Results', 'Finance and Trade', 'Fisheries and Livestock', 'Forms', 'Health Services', 'Income Tax', 'Online Application', 'Online Registration', 'Passport', 'Visa and Immigration', 'Postal and Courier', 'Radio, TV news', 'Recruitment', 'Ticket Booking and Purchase', 'Training', 'Treasury Invoice', 'Utility bills' and 'Vehicle Services'.

In this chapter we analyzed e-services by discriminating type of service and the service operation body. Also, we analyzed the tendency of services in each category. The followings are the result of the analysis of e-Services by each category.

#### **Admission**

There are 36 e-Services identified as Admission category. Among 36 e-Services, 28 e-Services are available. All services are citizen-centric or business-centric services. Majority of e-Services in Admission category are related to enrollment of University.

There are numerous e-services that covers similar functions which are admission related services. For potential users who may be students, it is better to have central information portal

that provides all the admission related information and links to each university's e-service. Followings are e-Services which are categorized as 'Admission'.

### **Agriculture**

The number of e-services that are categorized as 'Agriculture' is 21. Most e-Services except two are citizen-centric or business-centric services. Three of the e-services are simple information providing web sites. 'Personnel Data Sheet' is excluded due to its type of service is shared service.

Numerous e-services are agriculture related services. It will be efficient to have agriculture information portal that integrate all the agriculture related e-service in single system. Below describes the e-services in 'Agriculture'.

### **Ask Your Question**

There are 9 e-services in the category, 'Ask Your Question'. All services are for citizen-centric or business-centric services. 'Complaints Management System' is a simple link which is connected to google form. Grievance Redress System as a shared service can be categorized as 'Ask Your Question'. Most e-services has similar purpose and they are implemented as different system.

### **Digital Center**

There is an e-service, 'All services in one address for the entrepreneur'. The type of the e-Service is G2C / G2B. It is operated by Eksheba.

### **Directory**

19 of e-services are classified as 'Directory'. All services are citizen-centric or business-centric. 'Bengali Dictionary' is a simple downloadable link. There are digital library services, e-book and

information providing services in this category. All e-services are citizen-centric or business-centric services.

### **Education**

There are 29 e-services in the category, 'Education'. 23 out of 29 e-services are citizen-centric or business-centric services. 5 e-services are for government administration. 'Bangladesh Education Boards' is a shared service. There are three services that are simply providing information. (Website of Bangladesh National Museum, Website of Directorate of Primary Education, Website of Road Transport and Highways Division)

### **Exam Results**

8 e-Services are categorized as 'Exam Results'. All e-services are citizen-centric or business-centric services. The services are providing information of test results.

It is better to have a central information providing portal related to education so that users do not have to navigate each service for each query. Admission, application of course, viewing curriculum and checking exam results needs to be integrated into single education portal.

### **Finance and Trade**

There are 34 e-services related to finance and trade. Most e-Services are G2C or G2B. 'Online forex transaction monitoring system' is G2G. There is e-GP as shared service in the category. There are e-services for providing information of goods for trading. Some e-services are related to investment. There are bank related e-services.

## **Fisheries and Livestock**

There are 5 e-services in the category, 'Fisheries and Livestock'. Four e-Services are citizen-centric or business-centric services and one service named 'Personnel Data Sheet' is a shared service.

## **Forms**

3 of e-Services are about forms related service. All services are G2C or G2B. 'Government Forms' provides all kind of forms related to government services which can be classified as shared service. There is an e-service named 'eForm' which is classified as 'Online application' and 'Online Registration'. It is better to integrate these similar e-services into one integrated e-service for providing all the government related forms in single portal.

## **Health Services**

There are 9 e-Services categorized as 'Health Services'. 8 of e-Services are G2C or G2B whereas 1 service is G2G. 'Telemedicine' is a link leading to PDF.

## **Income Tax**

There are 7 e-Services categorized as 'Income Tax'. 5 of the e-Services are G2C or G2B. There is a shared service, 'iVAS' which is a VAT e-Service. Many of the e-Services are operated by National Board of Revenue. Rest are run by Internal Resources Division and Bangladesh Road Transport Authority.

## **Online Application**

100 e-Services are classified as 'Online Application'. 73 e-Services are citizen-centric or business-centric services. Among 73 e-Services, 12 services are simply providing information without any interactive functions. 24 e-Services are G2G services and 3 e-Services are shared

services. For the shared services, there are ‘e-File Management (Nothi)’, ‘eForm’, ‘Election Commission’.

### **Online Registration**

There are 22 e-Services categorized as ‘Online Registration’. 17 e-Services are citizen-centric or business-centric services. Rest are G2G services. ‘Electronic Form Fill-up’ is a shared service. ‘Website of National Academy for Planning and Development’ is a homepage that provides information.

### **Passport, Visa and Immigration**

There are 7 e-Services in ‘Passport, Visa and Immigration’. All e-Services in the category are G2C or G2B services. The service named ‘Visa Policy’ is a link of PDF.

### **Postal and Courier**

‘Bangladesh Post Online’ is operated by Bangladesh Post Office. It is a citizen-centric or business-centric services. ‘Website of National Savings Directorate’ provides information and have some of interactive functions. ‘Online Letter Process’ is a G2G service. It is seen only login page.

### **Radio, TV News**

There are 7 e-Services in the category, ‘Radio, TV News’. All services are G2C / G2B. The services provide radio channels or TV video streaming. However, there are no other function in the services. All services are attached in the website of Bangladesh Betar.

## **Recruitment**

12 of e-Services are categorized as 'Recruitment'. All e-Services except one are G2C or G2B services. 'Human Resource Management System' run by Urban Development Directorate is a G2G service. 'Model Application Form for Government Services' is a link of PDF. Many services related to recruitment are posted individually. It will be effective if there is a central human resource management that handles not only recruitment process but also training program for citizen.

## **Ticket Booking and Purchase**

There are 11 e-Services related to ticket booking and purchasing. Most e-Services except two are citizen-centric or business-centric services. Two e-Services which are G2G are services for booking conference room. E-Services in this category are for booking railway ticket, airline ticket, resort and other transportation ticket. Two e-Services simply provide information with no other interactive function. ('Website of Bangladesh Railway', 'Purchase of car from Progress Industries')

## **Training**

10 e-services are categorized as 'Training' services. 6 of the e-Services are citizen-centric or business-centric services. 4 e-Services are for government administration. 'Cooperative members online registration' provides only information of training program.

## **Treasury Invoice**

'Online Chalan Verification' is an e-Service categorized as 'Treasury Invoice'. The e-Service is G2C / G2B service that is operated by Office of the Controller General of Accounts.

## **Utility Bills**

There are 11 e-Services for utility bills. Most e-Services except for one are citizen services. There are services related to water supply and sewage, electricity, gas and internet. It is more efficient to have a central e-Service that can manage various kinds of utility bills within each municipality level.

## **Vehicle Services**

8 of e-Services are categorized as 'Vehicle Services'. 'Website of RupantaritaPrakritik Gas Company Limited' has no interactive service but providing information. 'Online Licensing' operated by Department of Inspection for Factories and Establishments and 'Online Vehicle Recovery System' run by Ministry of Textile and Jute are G2G services. Rest of the e-Services are G2C or G2B services.



## **Chapter 4**

### **Improving Public Service Delivery and Its Implications in Bangladesh**

In this section we review cases from the areas of Public Works, Education, and Community Driven Development in both rural and urban settings.

#### **4.1. Public services and way of improving it in Bangladesh**

The Ministries for Public Works has become a bellwether for other agencies by openly publishing budget data, lists of procurements, status of procurement, progress of project implementation, providing room for complaints and a public information request facility.

##### **Enhancing Public Sector Integrity**

In this section, cases in the areas of Public Procurement and Fiscal Transparency aimed at enhancing public sector integrity are reviewed.

##### **Public Procurement**

Bangladesh Government has developed an e-procurement system with electronic purchasing and online cataloguing facilities for public procurement. The agency uses social media for citizen outreach and awareness. It has a public window for the e-procurement system and provides public updates on Facebook. Notably, although the online procurement system provides transparency with the ability to publicly share dynamic data and analytics, the agency website encompasses static pages that are updated voluntarily. In addition, government agencies separately publish an electronic procurement page on their websites with information on public procurement. It is not easy to view procurement data across all Ministries and Agencies and the underlying information systems supporting these initiatives do not communicate with each other.

## **Fiscal Transparency**

From a point of almost total opacity, Bangladesh has during the past ten years made substantial strides towards budget transparency, providing “the public with some information on the central government’s budget and financial activities.” Several semi governments have taken this initiative even further by regularly publishing key information on the annual budget and holding budget hearings. Institutions have also indicated they will make substantial investments in outreach and awareness to the public through electronic media, public outreach, and publications. Websites under consideration are ranked based on localized criteria, while the 10 most and least transparent websites will be published as a demand-side trigger to improve fiscal transparency of Ministries and Agencies. The project also provides capacity building to agencies to improve access to fiscal information. The project has been included in the Government of Bangladesh’s Open Government action plan.

## **4.2. Implications of e-service delivery in Bangladesh**

Establish roadmap for holistic e-Government implementation. Provide institutional plan for e-Government act and plan for formulating governance for e-Government. Identify e-services to be developed and their estimated duration for implementation with prioritization order. Based on the assessment of the framework’s innovations in digital public services, it is possible to identify several initial implications that warrant further analysis:

### **Digital Service Accelerator**

This master plan also reflects the findings of 53 Ministries and Divisions “Digital Service Implementation Plan 2021” which was supported by Digital Service Accelerator, a combined support unit of Cabinet Division and a2i, ICT Division. Which are as bellows:

## **Ministry of Law, Justice and Parliamentary Affairs**

- Digital Notary Public Management System
- Digital Mediation (ADR) Management System
- Legal Aid Awareness Management System

## **Bridges Division**

- Toll Management System

## **Finance Division, Ministry of Finance**

- Management Information System
- Social Safety Net Service
- E-Chalan
- E-Payment gateway
- Government Saving Instruments Management Systems
- Social security payment system

## **Financial Institutions Division, Ministry of Finance**

- Capital Market Management System
- E-Chalan
- E-Payment gateway
- BB E-Permission
- Government Saving Instruments Management Systems
- Online Domestic Remittance Management & Mobile Banking
- Mobile Banking with CBS through App
- Internet Banking with CBS
- Mobile Banking System

- Domestic Money Transfer
- Online Share Management System
- Loan Recovery Agent System
- Utility bill payment through Mobile Banking Apps like **Bikash, Rocket, Nagad, EKPAY**
- Social security payment system
- BASIC Mobile Banking
- Bill and Fee payment through Mobile Banking Apps like **Bikash, Rocket, Nagad, EKPAY**
- PKB Mobile Banking through Apps
- PKB Internet Banking
- Agent Banking System
- Internet Banking System
- RAKUB Quick Money Transfer
- Social Safetynet Program Through AK Pay
- Mobile Banking like **Bikash, Rocket, Nagad, EKPAY**
- Sonali Payment System (SPS)
- Pension Management System (PMS)
- BDBL e-Banking
- e-Life Insurance Management System
- Infrastructure Fund Management System
- Non-Life Insurance Management System
- National Database Software (MFI-DBMS)

### **Ministry of Youth and Sports**

- Youth Employment Portal

### **Internal Resources Division, Ministry of Finance**

- Taxes Appellate Tribunal System
- Income Tax Management System
- NSD e-Sanchaypatra (Digital Sanchaypatra Sales and Encashment)
- NSD e-NRBS Sanchayboard (Digital NRB Sanchay Bond Sales and Encashment System)
- NSD e-Sanchay (Postal Savings Bank Management System)
- NSD e-Prizebond (Digital Prizebond Sales & Encashment System)
- NSD e-Bima (Postal Life Insurance Management System)

### **Ministry of Health and Family Welfare**

- National Health Management System
- HSD Ambulance Service Management System
- Online Medical Admission Exam Management System
- Nursing Academy Management System

### **Local Government Division, Ministry of Local Government, Rural Development and Cooperatives**

- Integrated Citizens Apps
- WASA Smart Services
- WASA Smart Service App
- DPHE Emergency Service Management System

### **Ministry of Agriculture**

- Info Dissemination & Support Services
- e-Agri Marketing System
- BADC Seed Management System

- BADC Irrigation Management System
- BADC Fertilizer Management
- BARI Crop Management Service System
- BARI Analysis and Seed Supply System
- Digital Crop Development & Management System
- Technology, Seed and Germplasm Management System

### **Ministry of Civil Aviation and Tourism**

- Online Passengers Sales & Services (Web & Mobile App)
- Digital Airport Service Bangladesh

### **Ministry of Commerce**

- VokterOdhikar
- Tea Labor Service Management

### **Ministry of Cultural Affairs**

- Digital Archive and Library Management System

### **Ministry of Defense**

- Online Parents Communication and Payment System
- SMART e-Recruitment System
- Electronic Weather Forecasting System
- Satellite based geo-disciplinary information dissemination system
- AFMC student Management System
- Digital Learning Management System
- Defense Finance Management System

### **Ministry of Disaster Management & Relief**

- Cyclone Early Warning Dissemination System
- Shelter Management Information System
- KABIKHA/KABITA Project Information System

### **Ministry of Environment, Forest and Climate Change**

- Herbarium Information Management Service System
- Overseas Employment Management System (OEMS)

### **Ministry of Fisheries and Livestock**

- Artificial Insemination Management System

### **Ministry of Food**

- Food Safety Information Management System
- Food Stock Management & Market Monitoring System

### **Ministry of Industries**

- Fertilizer Distribution Management System
- Sales & Distribution Management System (insulator, sanitary, ware, paper, cement, glass)
- BSCIS One-stop Services Management System
- BSEC CRM System Mobile Apps
- Cane Procurement Automation System
- IP Management System
- SME Business lifecycle support system

### **Ministry of Land**

- LRB Land Management System
- Freedom Fighter Digital Service

- e-Student Management System
- Zakat Management System
- Pilgrim Accommodation Management System
- Haj Passport Verification System

### **Ministry of Science and Technology**

- Virtual Science Museum (AR + VR)

### **Ministry of Shipping**

- E-port Management System
- Passenger port e-exit service
- E-Inland Water traffic Management System
- E-Ferry Services
- Online Port Services

### **Ministry of Social Welfare**

- DSS Child Services Management System
- JPUF Therapeutic Treatment Management System
- MaitriShilpa Social Apps
- NDDP Information System
- Social Welfare Manual Apps

### **Ministry of Textiles & Jute**

- JDP Cycle Management
- Jute Purchase Service Management

### **Ministry of Women and Children Affairs**

- Women & Children Crisis Management System



- Online Trainee Management Program
- Joy Mobile App

### **Ministry of Youth and Sports**

- Talent Hunting & Player Management System
- BKSP Talent Hunt Management System
- Sports Event and Performance Management System

### **Posts and Telecommunication Division**

- Teletalk Apps

### **Road Transport and Highways Division**

- Transport Management System
- Traffic Circulation Clearance System
- RHD Service Request System

### **Rural Development and Co-Operative Division, Ministry of Local Government, Rural Development and Co-operative**

- Online Extension Activities Management System
- Online Society Management, Milk Collection and Payment System
- Savings Management System (SMS)
- Sales & e-commerce
- Farm Management System
- BRDBs Beneficiaries Service Management
- Loan and deposit management information system

### **Secondary and Higher Education Division**

- Online Result Management System

- Digital Pension Management System

### **Ministry of Water Resources Planning Organization**

- Library Catalog of WARPO
- Web-enabled National Water Resources Database
- Integrated Coastal Resources Database

### **Ministry of Home Affairs**

- SSD Window for Citizen Services
- Fire, Rescue & Ambulance Management System
- DIP e-Passport and Immigration System
- DIP e-Visa Management System
- Inmates Management System

### **Technical and Madrasha Education Division, Ministry of Education**

- DTE Academic and Resource Management System

The identified implications appear to cut across issues of digital technology infrastructure, innovation strategies, regulatory frameworks, government and citizen capacity, partnership and collaboration capacity, and operational strategies, thus demonstrating the complexity of digital public service innovation.

## Chapter 5

### Conclusion

Bangladesh has changed from being an early and recognized global pioneer of online public service delivery to now widely being viewed as a laggard, despite some promising pockets of innovation that exist across all over the government levels. Mainstreaming the use of new technologies for citizen and stakeholder engagement, and business process transformation in government reform efforts provides a clean break from past practices to accelerate the move toward more transparent, efficient, and effective public services through digitalization. While this report identifies examples of various digital-era governance initiatives in Bangladesh, much of this work is still new and evidence of impact is still relatively thin. Future analytical work in this area could focus on understanding the conditions under which digital governance and transparency measures (information, communication, action, and response) contribute to better accountability and performance of service delivery.

The Sheikh Hasina's Government has yet to prioritize any particular aspect of digital government, at least in the early part of its mandate. Nonetheless, the absence of a more robust framework continues to greatly constrain collaborative undertakings, especially problematic in the rapidly evolving and inter-related realms of identity management and digital and mobile payment systems. Private sectors, and institution of higher education would thus seem a necessary precursor to moving beyond the current malaise of traditionalism and incrementalism that has come to define public sector service delivery in recent years. An equally important enabler is greater political investment into digital matters generally, a recent and encouraging. Additionally, consistent with the advent of open government, social media and mobile platforms,

as well as the pursuit of more participative governance models predicated upon the co-creation of public value, more stakeholder and public conversations can only assist in facilitating social learning and collective innovation. If governments are to view digital tools and platforms as a means to do “more with more,” to once again quote from Millard, a more open and agile mindset is foundational for any prospective potential.

This report revealed how digital technology transforms the delivery of public services, and gives rise to innovations in the provision of digital public services. The Digital Public Service Innovation Framework introduced by the paper adopts the four-stage model underpinning the public services survey as the “standard” level for digital public service provision compared to the “innovative” level. In doing so, the article suggests that progress in digital public service innovation is non-linear, with various examples provided of the emerging innovations in governments. The universal access to essential public services for all are continuing innovation in public service delivery should address to diverse social needs, raising social aspirations, economic pressure and unequal conditions for public service provision within and across countries; and, new technological inventions are gradually being assimilated, giving rise to case-by-case innovation in the provision of services in the process to be institutionalized.

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