

The State of E-Services Delivery in Bangladesh: Assessing Status through Content Analysis of Selected Government Websites

Fouzia Nasreen Sultana*
Irin Parvin**

Abstract

This paper reviews the state of e-government services delivery in Bangladesh. A content analysis of some selected government websites was conducted to determine the maturity of government websites in Bangladesh. The analysis was made based on a four-stage e-Government maturity model that includes 'publishing' (web presence), 'interacting', 'transacting' and 'transforming'. The study compares and contrasts the functionality and maturity of e-services provided on the National Online portal, District portals, Ministry and Departments' websites. The study identified that all of the selected websites are at the first and second stages of the website development and corresponding e-Government services. The paper argues that whilst significant steps have been made in the development of e-government in Bangladesh since the early 2000s, key challenges remain in the delivery of user-friendly and customer-oriented web-based e-services to citizens.

Keywords: Service, Maturity Model, National Web Portal, District Web Portal

Introduction

The use of Information and Communication Technologies (ICTs) in the public sector, or e-government as it is known, is playing a critical role in governments' efforts to revitalize public sectors in many countries. Modern ICT is a significant strategic tool for lifting public sector performance, offering benefits of greater efficiencies and effectiveness in government operations and service delivery, improved communication and coordination across organisational boundaries and levels of

* Assistant Director (Research), BARD, Kotbari, Comilla, E-mail: fouzia_nasreen@yahoo.com

** Joint Director (Demography), BARD, Kotbari, Comilla, E-mail: irin_bard@yahoo.com

government, and greater transparency and accountability in government functions. Consequently, over the past 10 to 15 years, governments around the world have utilised information and communication technologies, particularly digital technology (OECD 2009) which has significantly changed the ways in which governments do business with citizens. The potential for further change continues with recent advancements in ICT and with changing societal expectations.

The concept of e-government focuses on the provision of services at the front-end, supported by integration, consolidation and innovation in back-end processes and systems to achieve integrated, client focused service delivery and greater efficiencies (United Nations 2008). Governments are attempting to bundle, integrate and deliver services through more efficient and citizen-centric models encompassing multiple delivery channels. E-government as a whole is delivered via one-stop shops or single government web portals, rather than department specific portals. Modern ICT enables streamlining and integrating services across organizational boundaries and organising e-government services holistically in a straightforward and transparent way with, for example, 'one door entry' to the public sector.

E-government is no longer viewed only as the provision of information or services via the internet but as a way of transforming how citizens interact with government and how government interacts with itself (Rose and Grant 2010). The new social media tools have the potential to transform public policy processes by making government far more responsive and participatory. Web 2.0 offers unprecedented opportunities to open government decision making to the community allowing citizens to engage more directly and collaboratively with public servants (Government 2.0 Taskforce 2009, Bourgon 2007).

Even though most developed countries have had established electronic services for several years, the vast majority of developing countries have started only recently. In recent times Bangladesh has also started to prioritise eService development in the national agenda. Particularly the current government is implementing the "Digital Government" initiative. The main focus of this initiative is to deliver public service more effectively in an integrated way. To fulfill this goal government introduced the National Web Portal, District Portals and departmental web portals. Among these three, the National and District portal is acting as gateway for web based provision for public service in Bangladesh. This article is an assessment of these two portal based on a maturity model to examine the success level in providing service to the people.

What are e-services?

E-service can be broadly mean providing or consuming services using internet-based or electronic systems and where the service organisation

and customer(s) use the information gathered about each other to co-create a better service experience. E-services can be more specifically defined by Rowley (2006, p. 339-359) as "...deeds, efforts or performances whose delivery is mediated by information technology (including the web, information kiosks and mobile devices)". According to Goldkuhl & Persson (2006), eService means that an external user (a citizen) interacts through a user interface of a public IT system based on web technology. Crucially, e-service delivery has enabled customers and individuals to interact with organisations, public bodies, third sector organisations and other customers and citizens 24/7 at times and places that are convenient to the individual as opposed to being dictated by the organisation.

Both of the above definitions reflect three main components- the *service provider*, the *channels of service delivery* (i.e., technology) and the *service receiver*. Rowley's definition seems more explicit as it includes mobile devices. As regards public eService, public agencies are the service providers and *citizens* as well as *businesses* are the service receivers. The *channel of service delivery* is the third requirement of eService. The Internet is the main channel of eService delivery while other classic channels (e.g. telephone, call center, public kiosk, mobile phone, television) are also considered. This paper is only concerned with the state of web-based e-government services delivery for citizens as it is a web based analysis.

From the organisation's perspective, e-service can be viewed as "the integration of business processes, policies, procedures, tools, technologies and human effort to facilitate both assisted and unassisted customer services using the Internet and other networks" (Zhang, 2006).

Web 2.0 and other technological developments have facilitated improvements in e-service provision by enabling a more seamless connection between customers and indeed the organization. Some researchers group e-services into categories including foundations of e-service (e.g. site responsiveness and effectiveness, order fulfilment etc.), customer-centred e-services (e.g. customisation, order tracking etc.) and value added e-services (e.g. where organizations proactively try and optimise customer value through its e-service delivery). Regardless of how e-services are defined and categorised, the key characteristics of e-services for customers and organisations are that they are accessible and consumed by a person or customer via the Internet or other electronic network and there may or may not be a payment involved (Kelleher, 2009).

Purpose/Objective

This article reviews content of national and district web portals to determine the maturity of government websites with regards to eService

delivery in Bangladesh. The national and district portals are considered as national gateway for service delivery in Bangladesh. Therefore this paper is an assessment of these two level web portals to assess the maturity level of eService delivery process in Bangladesh.

Scope of the Study

The aim of this study is to examine the status of eService development in Bangladesh. The study mainly focused on availability of major eService initiatives, maturity levels of eServices and major challenges encountered in deployment of eServices.

Methodology of this Study

The study is fully based on the website analysis – website content analysis. The authors used a four stage e-Government maturity model that includes: (1) ‘publishing’ (web presence): the earliest stage, in which basic information is made available to citizens online; (2) ‘interacting’: the second stage that allows a platform for citizen to interact with government online; (3) ‘transacting’, the third stage allows users to conduct a complete transaction online, and (4) ‘transforming’ is the final stage in which all government operational functions are fully integrated, organized and personalized.

Measuring E-Services Maturity

An e-government e-portal’s maturity model is a set of stages (from basic to advanced ones) that determines the maturity of the e-government e-portal. The main benefit of those maturity models is to offer a way to rank e-government portals. Maturity models can also serve as a guide to help agencies enhance their e-government portal’s quality. Many maturity models have been used to assess or rank e-government portals. In order to assess electronic services provided to the citizens, an appropriate e-government maturity model should be selected. From literature review it was found that there are more than 25 maturity models. Although the maturity models present large similarities between them, but it was also found that the features included in those models differ from a maturity model to another. Furthermore, while some maturity models are covering some features and introducing new ones, it seems that others are just ignoring them (Fath-Allah, 2014).

Most prominent maturity models are: Layne and Lee, Andersen and Henriksen, United Nations, Hiller and Belanger, Cisco, Gartner group, West, Moon, World Bank, Wescott, Chandler and Emanuel, Kim and Grant, Reddick, Accenture, and Netchaeva Maturity Model. These maturity models’ stage numbers varies from 2 to 6 stages. In fact, although the maturity models’ stage names are different from one maturity model

to another; their content may have some similarities and differences. Moreover, almost all of them contain:

- A stage related to the availability of the portal in the Web (presence).
- A stage where the citizens can interact with governments (interaction).
- A stage where the citizens can transact with governments (transaction).
- An advanced stage that covers advanced features such as information sharing between agencies (integration). Etc.

Considering above features we selected the Gartner Group Open Government Maturity Model which covers the most important stages of maturity. It developed a four stage maturity model of e-government defined as follows:

- The 1st stage is “**Web presence**”: At this stage, the Web site is static and used to provide basic information to the citizen.
- The 2nd stage is “**Interaction**”: This stage features tools for interaction with stakeholders like search engines, documents downloading and emails.
- The 3rd stage is “**Transaction**”: At this stage the user can perform complete transactions online. This includes payments like buying and selling
- The 4th stage is “**Transformation**”: At this stage, the processes are integrated and personalized.

Here we tried to defined list of service categories expected in each of the four stages:

Stages	Service Provided
Web presence	<ul style="list-style-type: none"> • Search facilities • Contact details, opening hours, departments, links to other ministries/agencies • Publications and other information (public policy, governance laws, types of services provided) • Databases/statistics • Downloading/printing of forms • Advice/announcements
Interaction	<ul style="list-style-type: none"> • Emailing, complaint/feedback box, information request on government policies/programmes, reporting incidents • Completion and submission of online applications without fee payments (permits, licences, certificates, benefits, passports) • Online job applications • Helpline

Stages	Service Provided
Transaction	<ul style="list-style-type: none"> • Paying taxes • Paying service charges/fees • Paying fines • Paying bills (water/electricity) • Benefits processing and receipt (child benefit, housing benefits, etc.) • Completion and submission of online applications with fee payments (permits, licences, passports, etc.)
Transformation	<ul style="list-style-type: none"> • Formal online e-consultation facilities (e.g. government consultation on draft policy proposals, draft regulations, etc.) • Online polls/surveys • Open-ended discussion forum (e.g. blogs) • e-Petitions

Source: Kraetzschmar and Lahlali (2011)

E-Service in Bangladesh: Brief Discussion on the Government Context

There is no denying that eGovernment presents significant potential for addressing many of the existing weaknesses in governance in Bangladesh (Sobhan et al 2004). The government of Bangladesh already realized the priority of this sector and had declared ICT a ‘thrust sector’ in 1997 and had promised to invest enough in this sector. By 2008, the Government announced a vision for “Digital Bangladesh” and committed for a matured eService structure for 24X7. Therefore government introduced two level, National and District eService portal that includes information about different services and access to essential services. This two level eService structure however maintains the nature of centralized government system in Bangladesh. The National Portal is maintained by the Prime Minister office and District Portal is run by the Deputy Commissioner’s office which is known as the office of the chief representative of the Central government at the periphery. All service departments have their website but this departmental portal are mainly single level which does not have any district level website or service provision that match with 24x7 concept.

According to UN e-government Survey 2014 Bangladesh ranks 148 whereas it ranked 150 in 2012. In eservice delivery index it ranks 98. UN survey shows that a large number of countries at lower levels of online service development, highlighting the relative difficulty in supplying transactional and connected services—as described by the Survey’s four-stage model. The world mean Online Service Index value is 0.3919, where Bangladesh index value is 0.3465. That’s leads to the more research and rigorous discussion on eService process in Bangladesh.

Maturity of National and District Web Portal: Content Analysis

The analysis of the overall feature of the portals revealed that both National and District websites are at the publishing stage of the website development and corresponding e-Government services (see the maturity level of these two portal in appendix-1).

National Web Portal

Under the auspices of the Cabinet Division, the Access to Information (a2i) Program supported designing, developing and implementing this whole-of-government Portal. This Portal was launched in 2003 in order to establish transparency and accountability, alongside citizen-centric governance. According to the home page of this web portal, it is a gateway to 25,000 portals/websites of all government offices - Union, Upazila, District, Division, Directorate and Ministry. The objective is to promote citizenry rights with regard to public information and services by providing a single window access. An attempt has been made through this Portal to provide comprehensive, accurate, reliable and one-stop source of information about Bangladesh and its various facets of political, historical and cultural legacy.

This Portal embeds key information pertaining to government services such as: agriculture, education, health, law and human rights, human resource development, social security, environment and disaster management, tourism and history, natural and archeological sites, educational institutions, business organizations, public representatives and eminent persons, freedom fighters list, government circular/ gazette, procedures for applying and receiving public services, government forms, citizen charter, list of officers and personnel, digital guard files, e-directory, district-level and other e-services, development projects' activities and other information of public interest.

It was evident from the above that main objective of this portal is to provide information. However in eService category of the portal we found only eight (08) eServices in English version whereas it is 14 in Bangla version. These are:

- Passport Application Form
- TIN Registration
- Railway Ticketing System
- Union Digital Centre
- Multimedia Classrooms
- Government Forms
- Infokosh - National Repository

- E-Healthcare
- Online Birth/ Death Registration
- Gas Bill Payment
- Visa Checking
- E-Book
- Company Registration
- Application for Innovation Fund

It was found that most eServices are in first stage as they provide only information about where and how to get the service and the service process with link (check the maturity level of these services in National Portal in appendix 2). It was also found that each eservices are not linked properly. As for example, Electricity bill of Dhaka city can be paid online through DESCO, but it was not mentioned in the eservice category.

District Portal

It is important to know that in Bangladesh the office of the Deputy Commissioner (DC) is the focal point for service delivery process at the periphery. It was found that a wide range of services are provided from the DC offices including land administration and land revenue, maintenance of public order and security, license and certificates, land acquisitions, census, relief and rehabilitation, social welfare, pension matters, education and public examinations, public complaints and enquiries. By providing these services, the DC office represents the Central Government at the grassroots (district, upazila and union). On 14 November, 2011 the Hon'ble Prime Minister of Bangladesh and respected Secretary General of the United Nations jointly inaugurated all the 64 District e-Service Centres (DESC). DESC is an ICT facilitated one-stop service centre providing an electronic version of the century-old manual and heavily bureaucratic service delivery system at district level. The 64 District Portals are being incorporated with a comprehensive portal framework called National Portal Framework (NPF) that accommodates all government and local government offices – a total of over 20,000 offices – throughout the country (NESS, Access to Information Project).

District portal provide central eServices which are provided through national portal. In addition to that district level eServices are provided through this portal. Citizens are now able to submit their applications online from service centers located at the DC office, UNO office, Union Parishad or even from their own home without having to travel to the district headquarters. Upon submitting their applications, citizens receive an SMS notification with a receipt number and date of service delivery.

In addition, citizens are also able to submit their applications through the District Portal from anywhere in the world including all the Union Information and Service Centers. Citizens are notified through either SMS or email once the service is ready to be delivered. They can choose to receive the service in-person from the concerned DC office or by postal mail if the application is regarding request for any documents. During the waiting period, citizens are able to check the status of their lodged applications through SMS or District Portals. This has allowed citizens to avoid in-person visits to DC offices which were the practice previously (NESS, Access to Information Project). This Portal provides information and links pertaining to different sectors of the district such as agriculture, education, health, law and human rights, human resource development, social security, environment and disaster management, tourism and history, natural and archeological sites, educational institutions, business organizations, public representatives and eminent persons, freedom fighters list, government circular/gazette, procedures for applying and receiving public services, government forms, citizen charter, list of officers and personnel, digital guard files, e-directory and other information of public interest.

All these e-services belong to the web presence and interaction stage. The transaction process is still manual. There is a provision to transact money and to receive documents by post. There we found an option for login into NESS. The National e-Service System (NESS) is an initiative to consolidate all government e-services within one framework. The NESS framework will accommodate all services offered by the government of Bangladesh to its citizens. But it was not working. The NESS pilot, termed Digital District, was launched by the Hon'ble Prime Minister on December 20, 2012 and includes 240 district and upazila offices of Jessore district. At the time of launching, 182 citizen services were being offered with a target to offer additional 44 e-Form based e-services by June, 2013. It was planned that after the target completion of the pilot in Jessore in March, 2013, NESS implementation is being gradually expanded to all 64 districts with their upazilas. But it still does not come out in reality.

Some Observations

It was found that a good range of e-service information is now available online. The presence of public organizations' websites as linked to the national web portal supports this result. But most of the e-services are in the stage of publication i.e. electronic forms are available for such services, mostly in Portable Document Format (PDF). This is also evident from the link www.forms.gov.bd which lists several forms of different

public organizations. Few eServices are in the advance stage of interaction such as electronic forms can be filled-up and submitted online. For example, submission of passport forms, online birth/death registration, online application of admission in school, college, university etc.

There are services like agriculture extension which is using online platform to provide necessary advice to the farmers. Therefore agriculture service qualifies for interaction stage. However, the study found that the scenario is different for the most important 14 services listed in the national web portal. They are listed as eServices but they are not necessarily “e-services” because there is no scope to complete the full process online and get the service from anywhere. In most cases citizen have to fill up necessary format and make payment then need to go to the designated offices or station to get the final product, for example railway tickets.

It was also found that government yet to improve the legal framework to make eServices user friendly and upgrade the website to the transaction and transformation level. The overall progress of the e-service provision is therefore recognized as slow considering the government vision for digital Bangladesh.

The study found a gap in the conceptualization of “e-service”. The national portal categorically stated that the portals are for “information” about government service which leads to common understanding that the portals are not for service provision. In terms of availability of basic usability features like Find website using search tools, Site updated within past three months, Access in more than one language, Availability of map/index and Help/FAQ feature, these portal has all these features except Help/FAQ. Regarding enhanced features Advanced search option, Privacy statement, Tag cloud or 'hot topics and Secure website, can hardly meet one criteria.

The Web features that are critical in fostering government openness, government-government communication, and citizen participation and satisfaction are still infrequent or completely absent in government Websites. Lack of these features is likely to dissuade citizens from participating in the e-Government processes.

The study also found that instead of focusing on 24x7 at individual level, there is a focus on providing eServices through tele-center¹ set up

¹ Telecenters or kiosks have generally been defined as places or centers that provide shared public access to information and communications technologies for meeting the educational, social, personal, economic, and entertainment

at the periphery. These tele-centers are recognized as Union Information and Service Center (UISC) which maintains a business model which provides services including form download, exam result, searching information on various aspects like agricultural information, health service related information, information about education institutions etc. These centers can only provide the services if they are available in the relevant websites.

Implementation Challenges

From secondary sources it was found that Bangladesh is facing various obstacles to the promotion and implementation of ICT in the Government. This study focuses some major problems which include: Poor ICT Infrastructure, IT Policy, Lack of Awareness of government officials, Low Level of IT literacy, High-cost, Lower Liability of Internet Access, sustainability of eServices, legal issues like lack of regulations for electronic payment or data transfer etc.

Policy Suggestion

Clear policy direction for the role of the website in service delivery is needed. Most of the public service agency suffering with the conceptualizing functional difference between information as a “service” and the actual service they are providing. There is a need for clear understanding on “eService for individual (24x7)” rather providing services which is absent in the current model. The most essentially government needs to published the eService Act as early as possible that can clarify the eService responsibility of the departments. Finally the government must focus on educating the public agencies on the government vision for “Digital Bangladesh”.

Conclusion

This study has sought to examine the status of e-Government services in Bangladesh through content analysis of government websites. The study also contributes by bringing to light the eService maturity level of Bangladesh, indicating that only few of the eServices have attained the third stage (transaction) of the EU eService maturity model. However, the eServices in Bangladesh are becoming steadily more mature. The

needs of the community. Telecenters have gained prominence as the primary instruments for bringing the benefits of ICTs to poor communities where the technological infrastructure is inadequate and the costs of individual access to these technologies are relatively high. They provide opportunities for access to information by overcoming the barriers of distance and location, and by facilitating access to information and communication, they have the potential to foster social cohesion and interaction (Kumar and Best 2006). <http://ci-journal.net/index.php/ciej/article/viewArticle/328/268>

assessed level of maturity may possibly be used as a benchmark to measure periodically the comparative progress of Bangladesh in eService development. The analysis of mentioned websites therefore holds promise for future researchers and the findings suggest that Bangladesh government may need to revise its e-government policy to provide services through internet.

Reference

- Australian Government, 2009. *Engage: Getting on with Government 2.0: Report of the Government 2.0 Taskforce* at <http://www.finance.gov.au/publications/gov20taskforcereport/index.html>
- Bourgon, J. 2007. "Why should government engage citizens in service delivery and policy making?" Paper presented at the OECD Public Governance Committee Symposium on *Open and inclusive policy making*. Paris.
- Fath-Allah, Abdoullahet *al.* (2014). E-government Maturity Models: A Comparative Study. *International Journal of Software Engineering & Applications (IJSEA)*, Vol.5, No.3, May 2014.
- Farooq Sobhan, M. Shafiullah, Zahid Hossain and Mridul Chowdhury (2004), Study of eGovernment in Bangladesh, Bangladesh Enterprise Institute . <http://www.bei-bd.org/images/publication/whc4f4b6e134d05d.pdf>
- Kelleher, Carol & Peppard, Joe ; (2009) 'The Web Experience - Trends in e-service'. *Literature Review commissioned and published by the Institute of Customer Service (ICS)*.
- Kraetzschmar, Hendrik and El Mustapha Lahlali (2011), *The State of e-Services Delivery in Kuwait: Opportunities and Challenges*, Research Paper, Kuwait Programme on Development, Governance and Globalisation in the Gulf States, London School of Economics.
- OECD (2009). *OECD e-Government Studies: Rethinking e-Government Services: User Centred Approaches*, OECD, Paris.
- Rose, W.R., Grant, G.G.(2010). Critical issues pertaining to the planning and implementation of E-Government initiatives, *Government Information Quarterly*, 27(1), 26-33
- United Nations 2008. *UN E-Government Survey 2008 - From E-Government to Connected Governance*, United Nations, New York, at <http://unpan1.un.org/intradoc/groups/public/documents/UN/UNPAN028607.pdf>.
- Zhang, X., Prybutok, V. and Huang, A. (2006). An empirical study of factors affecting e-service satisfaction, *Human Systems Management*, 279-291.

Appendix

Maturity Level of National and District Portal

Stages	Service Provided	National Portal	District Portal
Web presence	Search facilities	-	-
	Contact details, opening hours, departments, links to other ministries/agencies	✓	✓
	Publications and other information (public policy, governance laws, types of services provided)	✓	✓
	Databases	-	-
	statistics	✓	✓
	Downloading/printing of forms	✓	✓
	Advice/announcements	✓	✓
Interaction	Emailing, complaint/feedback box, information request on government policies/programmes	-	-
	reporting incidents	-	-
	Completion and submission of online applications without fee payments (permits, licences, certificates, benefits, passports)	-	-
	Online job applications	-	-
	Helpline	-	-
Transaction	Paying taxes	-	-
	Paying service charges/fees	-	-
	Paying fines	-	-
	Paying bills (water/electricity)	-	-
	Benefits processing and receipt (child benefit, housing benefits, etc.)	-	-
	Completion and submission of online applications with fee payments (permits, licences, passports, etc.)	-	-
Transformation	Formal online e-consultation facilities (e.g. government consultation on draft policy proposals, draft regulations, etc.)	-	-
	Online polls/surveys	-	-
	Open-ended discussion forum (e.g. blogs)	-	-
	e-Petitions	-	-

Maturity Level of eService available in National Web Portal

Services	Web Presence	Interaction	Transaction	Transformation
Passport Application Form	✓	✓	-	-
TIN Registration	✓	✓	-	-
Railway Ticketing System	✓	✓	✓	-
Union Digital Centre	-	-	-	-
Multimedia Classrooms	✓	✓	-	-
Government Forms	✓	✓	-	-
Infokosh - National Repository	✓	-	-	-
E-Healthcare	✓	-	-	-
Online Birth/Death Registration	✓	-	-	-
Gas Bill Payment	✓ (for Dhaka city only)	-	-	-
Visa Checking	-	-	-	-
E-Book	✓	-	-	-
Company Registration	✓	✓	-	-
Application for Innovation Fund	✓	✓	-	-