Use of Social Media in Government for Improving Service Delivery and Government-Citizen Interaction: The Case of Bangladesh

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Abstract

In this day and age, social media has become an important part of the lives of countless individuals and in majority cases, has made a positive impact. Social media has grown to become a buzz word and has been used for various purposes by different people. Bangladesh too, as a developing country, has taken up the initiative to use this component of ICT (Information and Communication Technology) known as social media to accelerate the national decision-making process and enhance the performance of government officials at all levels, increase the involvement of the public in various activities. This study looks to try and understand the possibility of the use of social media in the public sector for social service in Bangladesh and how it may affect the service delivery system, government-citizen interaction, etc. An idea of the use of social media in the public sector in general was also established through this study. The research team collected users' data of both government officials and citizens from seven districts of seven divisions. 289 respondents participated in the questionnaire survey, where 86.16% were male and 13.84% were female. About 44% of the respondents had attained post graduate level education followed by 38.06% graduate, 14.88% HSC and 3.11% SSC. The study revealed that government organizations used Facebook page and groups with different goals and objectives, where one of the foremost goals were to communicate with the public in a new way; develop internal communication and thirdly, encourage service innovation, knowledge sharing and problem solution. There was a positive change in the productivity of organizational integration and behaviour pattern as there was no constraint of the office hour. Officers were found on Facebook even in the midnight to answer public queries, give directions to their subordinates and take immediate action to public demands.

Key words: Social Media, ICT, Facebook and Bangladesh.

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1. INTRODUCTION

In the last decades of the 20th century, developed countries brought significant changes in almost all aspects of life including economy, education, travel, communication, health and public service delivery. Many initiatives have been taken at the international level to support the developing countries to build their ICT infrastructure. The delegates coming from 175 countries across the world in World Summit on Information Society (WSIS) in Geneva in 2003 and in Tunis in 2005 recognized Information and Communication Technologies as a key development enabler. They agreed to work together for building a people-centred, inclusive and development-oriented Information Society, premised on the purposes and principles of the Charter of the United Nations, international law and multilateralism. They argued on respecting fully and upholding the Universal Declaration of Human Rights, so that people everywhere can create access, utilize and share information and knowledge.

Bangladesh is one of the developing countries that has been giving efforts to build a communication infrastructure designed to enable people to improve quality of governance and lifestyle of the people with maximum use of ICT. Taken initiatives accelerated the national decision making process and implementation of the decisions, improved the performances of government functionaries at all levels and expanded peoples' involvement. It is assumed that by 2021 Bangladesh will have a countrywide ICT network that will operate to ensure high speed information flow between the decision-centers where from instructions will be transmitted electronically to the action centers to make the intended actions happen. At the same time government is concerned with digital divide which could lead to shaping new classes of those who have access to ICT and those who have not.

Within this context, a programme named Access to Information (a2i) has been implemented since 2007 with the objective of providing support in building a digital nation through delivering services at the citizen's doorsteps. a2i is funded by the Government of Bangladesh, UNDP and other development partners, and is implemented by PMO and Cabinet Division. The programme aims at improving quality, widening access, and decentralizing delivery of public services to ensure responsiveness and transparency of the government through maximum use of technology.

In many studies, social media is identified as an important tool for government service delivery and public-service engagement. For example Freeman and Loo (2009) suggest that governments can improve their efficiency, user convenience and citizen involvement by using social media. There are varieties of social media application that can be used by the government departments for different purposes such as public hearing, departmental coordination, and public service innovation, experience sharing and problem solution. It is also widely recognized that the social media empowers the citizen asking questions to government and thereby it can help strengthening democracy. These opportunities of social media use encouraged a2i to enter into this arena in 2009 through launching of the Union Digital Centre (UDC) Blog. The widespread popularity of the UDC blog led to the introduction of departmental blogs in five important directorates. Four years later government departments started using Facebook by creating an open Facebook group named "Public Service Innovation Bangladesh" in September 2013. Now, 150 thousand government officials and over 100 thousand citizens are interacting with each other on a regular basis through 800+ public Facebook pages and closed groups. It is worth mentioning that Bangladesh one of the few Asian countries that is using Web 2.0 tools in the public sector for communication and information dissemination. Kuzma (2010) shows in her study shows that only 30 percent of Asian governments take full use of Web 2.0 social media technology to communicate and disseminate information to constituents, leading to missed opportunities to better serve their constituents.

Given this growing use of social media in government offices popular social media platforms are being gradually transformed into powerful communication tools for reaching and engaging with parts of the community that traditional communications struggle to reach. Within this context the present study focuses on social media usages in Bangladesh government with empirical data.

2. LITERATURE REVIEW

The social media is rapidly adopting in the public sector for disseminating information, providing services and keeping in touch with the citizens. It is now therefore a necessary part of public sector communication. This section first explains the social media concept and then discusses the scope and practices of social media use in public sector with some examples across the countries.

According to Kaplan and Haenlein (2010) "social media is "a group of internet based applications that build on the ideological and technological foundations of web 2.0, and that allow the creation and exchange of user -generated content". Hence it can be said that social media is an umbrella term that refers to the Web 2.0 based communication channels includes social networking sites (e.g. Facebook, Google+), blogs and microblog (e,g. blogs, wikis, Twitter) and media sharing sites (e.g. YouTube, Flickr). These channels are designed for content generation, sharing and collaboration, interaction, participation and feedback. In contrast to web sites people are not limited to the passive viewing of content; social media platforms enables their users to create content and share with others, and maintain relationships that were not previously possible with a large and extended network of contacts (Shabnam et al. 2013). According to Statista, one of the world's largest statistics portals that bring together data from over 18,000 sources, estimation around the world social media users will be increased from 1.4 billion in 2012 to 2.13 billion in 2016 and 2.44 billion by 2018. While the number of social media users is increasing, the numbers of platforms are also growing and new service features or tools are adding often to the sites for dealing with users demand.

Among the social network sites Facebook and Twitter are the most popular social media platforms worldwide. However popularity of the social network sites varies from country to country. For example, Google+ is much more popular in the United States and in India than in the rest of the world while MySpace, Facebook and Bebo are much popular in UK. There are other social network sites that emerged in the non-English speaking countries and gaining popularity. *Cyworld*, for example, is a South Korean social network sites using in South Korea, China, and Vietnam, *Kontakte*, similar to facebook, is popular in Russian speaking countries, *Tuenti* is essentially a Spanish facebook while social networks *Mixi* can only be used in Japan. There are some countries where social media sites had been officially blocked for shorter time and there are some other countries where social network sites are not officially banned but accessed is either blocked or limited for a longer time. North Korea is an exception where social media is banned, only a limited number of University graduates and professors have access to the internet. Internet users in Cuba, Turkey, Iran, Pakistan, Vietnam cannot access to social network sites for a longer time but the governments denied blocking the sites. China officially blocked facebook and Twitter in 2009. Chinese own social network sites gradually gain popularity since 2009 when Facebook and Twitter were blocked after series of riots between Uyghur and Han ethnic groups in Xinjiang of North-Western part of China. Despite the blocked, users can use VPNs or proxy servers to access the sites that have been blocked. China already has its own social network sites and gain popularity, for example, facebook is replaced with Sina Weibo and Tencent Wechat that have many features similar to the facebook. Following table shows some prominent examples of social media usages:

Table 2.1: Social Media Platforms and Scope of their use in Government

Platform	Spectrum/Range	Scope of Use in Government
Facebook	Facebook is a popular networking site for an easy exchange of informative text, picture, audio-video and users can communicate within themselves through instant messaging and chatting.	▪ Possible to share information and communication with the common people. ▪ Possible to inform people about the goals, objectives and services of an organization. ▪ Possible to create interaction among different government offices and official staffs. ▪ Possible to share different kinds of positive and innovative activities. ▪ Possible to assess public perception on government policies and initiatives. ▪ Possible to make citizen aware of citizen-centric issues by publicity.
Blog	Blog is a typically interactive platform run by an individual or an institution. Text, pictures, videos, discussion on various issues can be shared in Blog to express one's opinion and raise public voice.	▪ Information and opinion can be shared in blogs. ▪ Debate over a policy or initiatives and public opinion can be addressed through discussion and analysis. ▪ Complaints, views and opinions on the ways of standardizing services in a particular issue/service can be shared.
Twitter	Twitter is a micro blog where registered users can post any kind of subject-matter in 140 words and unregistered users can read the posted things but cannot post on twitter. Twitter can be linked to the facebook and websites.	▪ Emergency public service departments can notify emergency situation, update incidents and cautionary messages in short form. ▪ People can be informed through message about programs or event of a day.
YouTube	YouTube is a popular media sharing site that makes it easy to upload and watch videos.	▪ A Chief Executive of any institution or his/her representatives can upload message or speech. ▪ Activities or successes of any institution that inspire others can be uploaded. ▪ Different videos of speeches on education or training can be shared among the particular group members.

Social media is commonly used for establishing and maintaining relationships with friends and family, communicating and interacting with the clients. Now a day its use is not limited for staying in touch with friends and family or marketing a product, it is also used for government purposes such as better and quick service delivery, inform and interact with the citizens, innovation or idea sharing and problem solution, and raising public awareness. Pew Internet & American Life Survey study- 2010 shows that almost a third (31%) adult internet users in the USA used social media tools to keep informed about government activities. In the past few years several studies examine the role and potential of social media for government. In this section, some articles and research reports are reviewed to understand the importance of social media usages in public sector.

Social media provides specific functionalities for the elected officials, government department/agencies and citizens to communicate each other. According to Jaeger et al. (2012) social media open new and innovative methods for immediate and ongoing interaction between citizens and governments. With the examples of American federal government agencies they show how quickly social media has become a primary tool to disseminate government information, connect with members of the public, and provide access to services. In other words Kes-Erkul (2009) argues that social media have the capacity to increase the opportunity for users to engage in greater community participation.

Social media is also useful for disaster management by disseminating emergency or disaster-related information, communicating with outreach citizens and providing those services during the emergency situation. Across the world government and non-government organizations are increasing using social networking sites for serving target people and volunteers during and after natural and manmade disasters. With some examples one study shows that how social media was utilized in the disaster for operating relief functions, fund-raising and moral support. For example, the US Federal Emergency Management Association (FEMA) encouraged people to use SMS and social networks to keep in touch with family and friends instead of calling by phone so as not to jam networks. According to Acar and Muraki (2011), social media is sometimes the only functioning communication method in disasters.

Social media has significant potential to use for promoting government service delivery; it can reduces time, cost and visits for government service recipients. As such, it is quite useful for the service delivery agencies to distribute service more efficiently and quickly. For example, California Employment Development Department (EDD) uses Facebook and Twitter for updating employment information. They also created YouTube channel with videos explaining the process of filling out and submitting unemployment claims documents. Such initiatives help people avoid making time-consuming mistakes and deflect a large number of incoming quarries and telephone call (Genesys 2011). From the Indonesian perspective Nurmandi (2014) concluded in his study: "The use of social media by governments can be made more open, more transparent, more responsive and accountable for its act and can provide a quick, cost effective and two way interactive platform for discussions and interactions of the governments with its local people, which will eventually help in better policy formulation and its effective implementation."

According to Bertot et al. (2010), social media has four major potential strengths: collaboration, participation, empowerment, and time. It is collaborative and participatory because it provides the ability for users to connect with each [other] and form communities to socialize, share information, or to achieve a common goal or interest. They argue that social media can be empowering to its users as it gives them a platform to speak, publish or broadcast information. In terms of time, social media technologies allow users to immediately publish information in near real time. Based on empirical evidence Mickoleit (2014) shows that in his study that social media can bridge access and take-up gaps still faced by many traditional online government services. Given such potentiality government officials seek to leverage social media tools to improve services and communication with citizens especially segments of the population that previously were underrepresented (Kavanaugh et al. 2012).

"When civil servants, policy makers and service delivery units alike, open themselves to dialogue with the public they can glean a much better understanding of the real needs and concerns of citizens. They can keep up to date with the latest thinking as well as being a listening post and avenue for real time reassurance and information". Francis Maude, Minister for the Cabinet Office, social media Guidance, UK.

In many studies it is argued that the government agencies can be more transparent and accountable when they use social media in their work. Romsdahl (2005) argues that more participation of government policy-making via the Internet could help revitalise dialogue between citizens and governments and promote greater participation by disenfranchised citizens and groups as they use these technologies to educate others about political issues in their communities. According to Freeman and Loo (2009) governments can achieve efficiency and increase user convenience and citizen involvement by using social network sites. Therefore social media is increasingly adopted in the government agencies. However the nature of social media use in public sector can be varied different from country to country, as well as within countries.

Across the world many countries government agencies have been using social network sites (like Facebook, blog, Twitter, Youtube channels) for promoting interactions between government and citizens, extending government services and engaging citizens in government efforts. Delegates presented in the Web 2.0 Conference- 2011 suggested that the government agencies can use social media for government service delivery, citizen/community engagement, information dissemination and internal collaboration.

American citizens are increasingly being offered the chance to interact with government agencies through social networking sites. According to Pew Research (2010) , nearly one in three online Internet users were using social media tools to access government services and information other than websites to get information from government agencies or officials. Paul T. Jaeger and others stated that federal government agencies have embraced the use of social media at the behest of the Obama administration and following the growth in use of social media (Paul T. Jaeger, John Carlo Bertot and Katie Shilton 2.1). President Obama became a strong advocate for the use of social media when he was a presidential candidate (Jaeger et al. 2010). The presidential campaign of Barack Obama used Web 2.0 tools intensively to reach the general public and seek support and collect feedback from voters. Barak Obama who is often called 'Social Media President' makes the history of social media usages for political campaign. The use of social network sites for presidential campaign gave citizens a platform to interact with each and other on issues that mattered to them (Katz et al. 2013). Even after the election his (Obama) administration continues using social media tools for similar purposes as before the election. At present nearly all major federal agencies have presence in social media channels such as Facebook, Twitter, YouTube, RSS feeds and Flickr. These channels have been using to directly communicate with the public and provide better service. However federal agencies began to use social media channels for public relation purpose only. According to National Archives and Records Administration (NARA)'s Records Management Self-Assessment Report-2011, seventy percent of federal agencies use social media platforms in their public outreach and internal communications. The NARA has been working for developing Web 2.0 guidance and policies for archiving Web 2.0 data (National Archives and Records Administration 2013).

Social media has also become a part of government communication system in the UK. Including Prime Minister's Office, Foreign Office, Department of Transport, Department of Work and Social Pension, Local Government and many other government offices are using social media channels both for internal communication, consultation and for

external engagement with the citizens. BDO which is UK based private firm that has been conducting Local Government Social Media Survey every year since 2011, shows that the local government members (councillors) turn to social media as a tool to improve the quality and cost effectiveness of services.

The British Cabinet office published their Social Media Guidance for the civil servants in May 2012 and updated in October 2014. The guide line has formulated to help the users to understand how a social media account is to be managed and how content is to be developed. In line with social media guidance, government departments use social media sites to deliver their objectives.

> *"Social media will save time and money for the citizen, and allow for public monitoring of government performance…this will be a transparent and unbiased monitoring."* Survey Respondent, Arab Social Media Report, June 2014.

In Australia, public service agencies and sub-national authorities have presence in different social network sites includes Blogs, Twitter. facebook, YouTube, Flickr, Google+, RSS feeds and Podcast. They use social platforms to engage with the community as well as for internal communication. Examining six FB pages Sultana Lubna Alam & David Walker show that the FB pages are being used for communication, compliance, recruitment, promotion and crowd sourcing. The government encourages and supports the use of social media platforms for conducting government business. For providing guidance on the management of official social media accounts each department or agencies has their own social media policy.

Following the practises of western countries Arab governments also have started using social media channels to communicate and disseminate information to their citizens. The Arab Social Media Report, published in June 2014, revealed that Arabs have positive attitudes towards getting engaged by government through social media for public service design and delivery but it is still at an emerging stage. Report suggested increasing government responsiveness to citizens' feedback on social media platforms, in order to encourage citizen trust in and utilization of these channels. Following tables shows the Arab governments presence in the social media:

Table: 2.2 Ministries Active in Social Media

Social Media	UAE	KSA	Bahrain	Oman	Qatar
Number of Ministries	18	22	16	22	14
No of Ministries Using Social Media	12 (67%)	12 (55%)	8 (50%)	10 (46%)	6 (43%)
Facebook	44%	13%	38%	18%	21
Twitter	28%	14%	44%	9%	28
Youtube	11%	5%	-	-	7
RSS (Rich Site Summery)	25%	14%	13%	14%	21
Flicker	-	-	19%	-	-
Blog	-	-	-	-	-

Source: Data calculated by the authors from Ali H. Al-Badi, "The adoption of social media in government agencies: Gulf Cooperation Council case study", Journal of Technology Research, January 2013.

One study shows that approximately 30 percent of Asian governments are using Web 2.0 tools for communication and information dissemination while other governments are missing opportunities to better serve their citizens and reach the growing number of Internet users (Kuzma, 2010). Among the Asian countries, Japanese government moves to use social media platforms at the municipality level to community building, democratic process and disaster management just after the Just after 2011 earthquake and tsunami. Studies show that social media is helpful during and after disaster to trace out family members, collect donations for relief efforts and keep the public informed about rescue program. After the earthquake and tsunami accounts in social networking sites like Twitter, Facebook increased about six times and some new social network sites like 'Line' (Japanese chat app) also launched to respond to the disaster. The time when government started to use social media they did not have any guideline. The Japanese government made a guideline in April 2005 paying attention in using social media.

Indonesia has the highest social network penetration rate (77.0%) among South East Asian countries. After the presidential election in 2014 the Joko Widodo government launched a new form of communication with social media (Facebook Jokowi Center) to get public responses and complaints from the community as well as to strengthen public awareness. For example, Ministry of Education & Culture and related directorates use Facebook and Twitter to respond to teachers, students' needs and report on progress of achievement of various education programs.

Social media like facebook, Zing, Vietnamnet are the most popular sites in Vietnam. People use these sites for sharing information, opinion and keeping in touch with friends and family. However the government tightly control media and monitor online content, some local government officials started to use social media to provide information and receive feedback from the people. *Miss* Tuoi Tre, Health Minister of the current government, has first announced official facebook page to communicate with members of the public and to take appropriate measures after receiving feedback, suggestions. This verified page was created in late 2014 and now (17 March 2016) it has 329,920 followers.

Sri Lanka is going to start using social media for official purpose. On 16 January 2016, Sri Lanka's prime minister Ranil Wickremesinghe announced officials would use social media to seek the view and public opinion on a proposed new constitution aimed at preventing a return to ethnic war. Since coming to power the Wickremesinghe's government took different initiatives to encourage the use of web-based services. Some tech-aware politicians used Social media (Facebook and Twitter) for political outreach in the presidential and general elections in January and August 2015 accordingly. For the first time, the Department of Elections created a Facebook page named 'Tell Commissioner' and invited the public to share complaints and evidence related to violations of the election law (www.facebook.com/groups/tellcommissioner). Through this page Department of Elections engaged people for watching and reporting on violations of electoral laws by political parties and candidates.

Facebook, Twitter, Youtube are most popular social networking sites that have been using in Indian government departments for answering public quarries, extending government services and engaging members of the public in government efforts. The Department of Posts is the first government organization that started using social networking site with a Twitter account tilted 'PostOfficeIndia in 2010. They have a dedicated team of people for responding queries of followers and updating their achievements, promotions and programmes. Gradually other

government organizations came up with twitter and facebook accounts. Especially Modi government from its beginning is giving emphasis for using social media in government sector to take their activities instantly to the people. Therefore at the end of 2014 about 90% of the ministries entered into the arena on social media. Apart from this ministers and civil servants maintain Twitter and facebook page for tackle departmental issues and to communicate with the public. Amid growing concern of using social media the government has put out a set of guidelines for governmental organisations in 2012.

From the literature review and examples it is appeared that Social media has the potential for public engagement, emergency management and promotion departmental activities. It is beyond argument that social media can reduce the gap between organization and citizens, and can make an easy access to government services.

For successful and proper usages of social media some factors play significant role i.e leadership, strategy/policy, platform and content selection, risk management, targeting and reaching audience, account management and a guide line for the users. But most important lesson is that before starting using social media organization should able to answer question why they will use social media.

3. STUDY OBJECTIVES AND SCOPE OF WORK

The overall objective of this study is to find out the potential of social media use in government and how social media can improve service delivery and government-citizen interaction.

3.1. The specific objectives of this study are as follows:

a) Identify the scope of social media use in the public sector in general and Bangladesh in particular;
b) Assess the present status of social media usage in the public sector in Bangladesh;
c) Explore how far the social media can be used for internal communication, service delivery and improving government-citizen interaction.

3.2. The scope of this research work is as follows:

a) Based on literature review and best practises identify the key factors that have considerable impact upon the use of social media in public sector;
b) Carrying out focus group discussion, consultation meeting, observation and content analysis (facebook page) for exploring present scenario of social media use in government offices;
c) Obtaining users (both government officials and citizens) perception about the usages of social media in Bangladesh Government through well-structured questionnaire survey;
d) Identify the major challenges and recommend for actions whereby the government and other agencies could contribute to accelerate the social media use;
e) Develop a comprehensive guideline giving a clear guidance how social media can be used to enhance policy making and service delivery.

4. METHODOLOGY

4.1. Methods of Data Collection

The precise methodology which was used in this research was finalized after an inception meeting with relevant a2i officials (evaluation and monitoring, social media experts). Following the inception meeting survey questionnaires were field tested for robustness before the main phase of field work. Collected data is presented both in tabular and text format; some important findings are also presented in graphical format for rapid understanding. Some of the facebook posts are presented in text boxes for understanding the nature of public presence.

The field work was started with questioner survey, FGD and workshop meetings at the district level as well as in Dhaka. The research team collected users' data (both government officials and citizens) from seven districts of seven divisions. From each division one district was selected purposively for collecting primary data through personal interview, focus group discussions and workshops. Besides these, following methods were also applied for collecting data from the service providers and the end users.

i. Literature Review

Literature on social media usages was widely reviewed to know the standard practice of other countries. Social media strategy and guidelines formulated by some other countries (South Africa, India, Australia and Japan) were also reviewed.

ii. Questionnaire Survey

Three different structure questionnaires as shown at Annex-1 were used for individual interview. First group of respondents were chosen from the selected government departments, directorates and DC offices across the country who are actively using social media especially facebook. The second group who are involved with administering the social media accounts of government offices. This group was chosen to know how they manage facebook accounts and what are essential for account management. Both questionnaire surveys were conducted through survey monkey application. The third group were citizens. Data collectors collected data from them through structured questionnaire survey. Citizens were deliberately chosen from different segments of the society such as journalists, students, teachers, UDC entrepreneurs and IT entrepreneurs. The respondents were further disaggregated by gender, age and geographical location (rural/urban). The survey objective was to find out public perception about social media use in government.

iii. Discussion Meetings

Discussion meetings were arranged for discussions with on issues and concerns of social media use in government organizations. Respondents were purposively selected who are using and in somehow involved with mentoring social media use. The respondents were Secretary of Ministry of Land, DG of Social Service, DG Passport & Immigration, DG Cooperative, Directors Fire Service & Civil Defence, District Commissioners, ADC (Education and ICT) and social media expert of a2i.

iv. Social Media Dialogue

Social media dialogue was organized in selected seven districts where different ranks of government officials, members of CSO, journalists, students and UDC entrepreneurs were presented. It is worth mentioning that participants are mostly engaging in public communication via social media

v. Focus Group Discussion

Four FGDs were conducted in four districts (Mymensingh, Sunamgonj, Brahmonbaria and Rongpur) with relevant government officers and citizens Districts Commissioners, ADC/AC (ICT), programmer/asst. Programmers, UDC entrepreneurs, students and journalists. The main purpose of those FGD meetings was to find out how district commissioner and UNO offices use social media to interact with the pubic and line departments.

vi. Case Study and Facebook Content Analysis

The change or development of the program is explained through case study method and facebook content was analyzed for mining public perception.

Table 4.1: Methods and Respondents' Size

Methods	Respondents	Number
Questionnaire survey (survey monkey)	Government Officers, UDC Entrepreneurs, Teachers and others	61
Questionnaire survey (survey monkey)	Facebook account administrators	60
questionnaire survey	Citizens	168
Personal Interview and discussion meetings	Senior and mid-level Government officers	30
FGD	Government officers and citizens	4 FGDs (42 Persons)
social media dialogue	Citizens and government officers in seven districts	195

5. FINDINGS OF THE STUDY

5.1. Respondents and their access to ICT

A total 289 respondents participated in the questionnaire survey and 86% of them are male and 14% are female. Among them 168were citizens, 60 were account administrators, and 61 were Government officers.

Table 5.1: Sex of the Study Population

Category	Female	male	Total
Citizen	27 (16.1%)	141 (83.9%)	168
Account Administrators	7 (11.7%)	53 (88.3%)	60
Government officers	6 (9.8%)	55 (90.2%)	61
Grand Total	40 (13.84%)	249 (86.16%)	289

About 44% respondents' education is post graduate level followed by 38% graduate, 15% HSC and 3% SSC. It is also showed that all respondents had a good background since all of them completed at least Secondary School study.

Table 5.2: Education of the Study Population

Category	Up to SSC	HSC	Graduate	Post-graduate	Ph D	Total
Citizen	7 (4.2%)	34 (20.2%)	63 (37.5%)	64 (38.1%)	-	168
Account Administrators	-	9 (15%)	16 (26.7%)	34 (56.7%)	1 (1.7%)	60
Government Officers	2 (3.28%)	-	31 (50.82%)	28 (45.9%)	-	61
Total	9 (3.11%)	43 (14.88%)	110 (38.06%)	126 (43.60%)	1 (0.35%)	289 (100%)

Findings revealed that majority of the respondents are aged between 20 and 40 years. About 43 % of citizens were between 21 and 30 while 34 % of government officers were at the same age range. However, majority (38%) of Administratiors were in between 21 and 30 years.

Table 5.3: Age of the Study Population

Age	Citizen		Government Officers		Administrators	
	Number of Respondent	Percentage	Number of Respondent	Percentage	Number of Respondent	Percentage
Up to 20	10	5.96%	5	8.2 %	1	1.67%
21-30	73	43.45%	21	34.43%	14	23.33%
31-40	49	29.17%	16	26.23%	23	38.33%
41-50	24	14.28%	13	21.31%	15	25%
51-60	12	7.14%	6	9.83%	7	11.67%
Total	168	100%	61	100%	60	100%

Respondents have access to ICT equipment in terms of desktop PC, laptop, tab, smart phone etc. Half (52%) of them use Desktop PC followed by Smartphone (46), Laptop (42%), and Tab (31%).

Table 5.4: Respondents' Access to ICT equipment

	Only Personal	Only Official	Both	Total
Desktop PC	4	19	29	52
Laptop	2	6	34	42
Tab	1	10	20	31
Smartphone	16	1	29	46

Table 5.5 showed that about 82 % citizen respondents use internet from home while the majority (78%) Government Officers have access to internet at both home and office.

Table 5.5: Place of Internet Use by the Respondents

Place of Internet Use	Citizens	Government officers
House	138 (82.1%)	2 (3.4%)
Office	123 (73.2%)	11 (18.6%)
Both home and office	-	46 (78.0%)
Education Institution	24 (14.3%)	-
Internet cafe/kiosk	35 (20.8%)	-
Travailing	17 (10.1%)	-

5.2. Social Media Use by the Respondents

It has been revealed from the survey data (Table 5.6) that most of the respondents both citizen and government officers have Facebook accounts while 28% citizens and 7% government officers have presence in Blog. A small number of respondents have presence in other social media sites also.

Table 5.6: Social Media Use by the Respondents

Category	Face book	Twitter	Blog	Linked in	Others	Total
Citizen	150 (89.3%)	43 (25.6%)	47 (28.0%)	16 (9.5%)	15 (8.9%)	168
Government Officers	56 (91.80%)	3 (4.92%)	4 (6.55%)	4 (6.55%)	4 (6.55%)	61

Source: Data calculated on the basis of questionnaire survey; N.B. Multiple answer is counted

About 68 % citizens claimed that they use social media sites every day and 26.2% almost every day. Similarly most of the government officers (45.9%) also use the social media sites every day and 34.43% use almost every day. Only few respondents (1.64% government officers and 6% citizens) do not use the social media regularly.

Table 5.7: Frequency of Social Media Use by the Respondents

Answer Options	Government Officers (%)	Citizens (%)
Every day	28 (45.9%)	102 (67.7%)
Almost every day	21 (34.43%)	44 (26.2%)
Once a week	5 (8.19%)	7 (4.2%)
Once a month	2 (3.28%)	5 (3.0%)
Infrequent	1 (1.64%)	10 (6.0%)
No answer	4 (6.56%)	0 (0.0%)

 Source: Data calculated on the basis of questionnaire survey

Most of the citizens (82.1%) know about government facebook page and they mostly know from facebook sharing, government websites and friends/colleagues. Survey data revealed that citizens those who have facebook accounts mostly visit DC office facebook pages and also visit police departments, Public Service Commission and other facebook pages. Those who use government facebook pages, they answered that they use these pages for getting information about government notice/advertisement and important events. Apart from that about 30% respondents like/share content and 39.1% respondents post their own comment or upload new content.

Figure 1: Use of Govt. Official Face book page/group by the respondents (citizens)
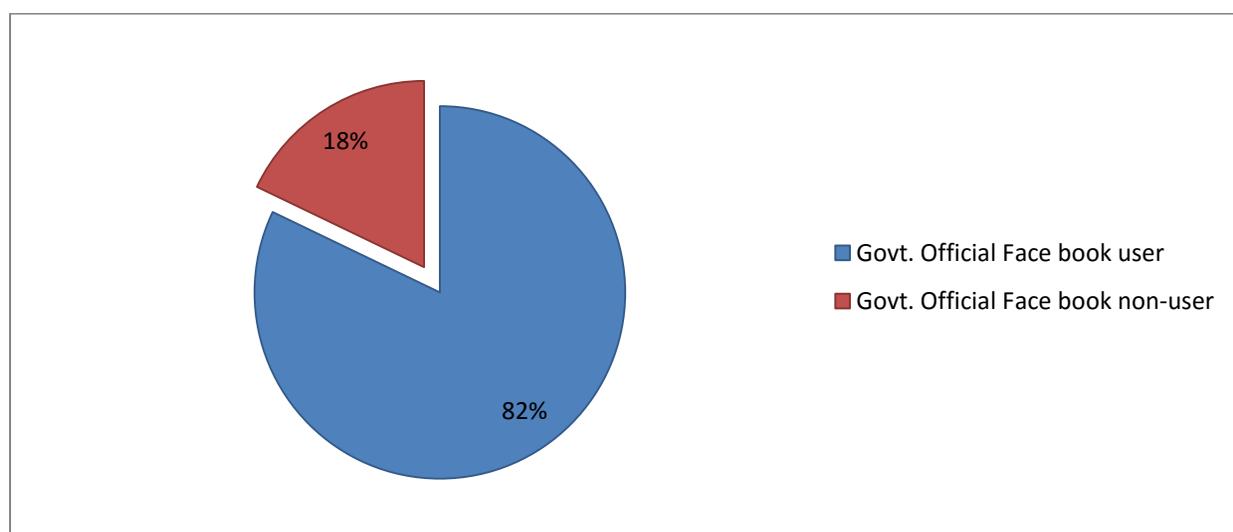

Table 5.8: Reasons for Using Government facebook (citizens)

Reasons for Using Government facebook	Frequency	Per cent
Observe Important events/programs	110	79.7
Notice/Advertisement	73	52.9
Post/Content Upload	54	39.1
Content Like/Share	41	29.7
Others	13	9.4

Source: Data calculated on the basis of questionnaire survey

5.3. Social Media Use in Government Organizations in Bangladesh
Government organizations in Bangladesh have begun to use facebook as a way to listen and respond to public. Soon after starting using facebook it has become a quick way for public engagement and organizational communication because of its easiness of usages. This section analyzes content, structure and performance of selected government facebook pages. The benefits of using social media in government organizations are also explained with some case studies.

5.3.1.   ICT Infrastructure and Social Media use in Bangladesh
Bangladesh is one of the developing countries that has given priority to implementation of ICTs in all governmental agencies. At the same time government is encouraging private sectors to act as partners of its initiatives as well. Having in mind the overall development of ICT sector and its beneficiaries the government of Bangladesh has endorsed: National Telecommunication policy in 1998; Bangladesh Telecommunication Act in 2001; Bangladesh Telecommunication Regulatory Commission in January 2002; ICT Act in 2003; Right to Information Act 2009 and National ICT Policy 2015. A national project called Access to Information (a2i) is on-going in partnership with the United Nations Development Programme (UNDP) to increase socio-economic development of the country by utilizing ICT tools.

Until 1996 the people of Bangladesh have only access to e-mail through dialup services; the internet service started to become available in late 1996 when VSAT base data circuit was commissioned in the country and two ISPs provided internet service only to about thousand subscribers. Soon after ISPs and internet subscribers grown rapidly and the government came to leverage its policies in the subsequent years. In 2006 Bangladesh has joined the submarine cable network consortium as part of 16 countries consortium project named SEA-ME-WE 4. After that many ISPs have got the opportunity to connect the submarine cable and hence the number of internet users has

increased because of bandwidth quality and affordable price. Now the country is aiming to connect second submarine cable by next year for obtaining bandwidth of more than 1,300 Gbps in addition to 200 Gbps bandwidth from the existing connection. Apart from this, six International Terrestrial Cable (ITC) connections are using for internet connectivity.

Both public and private initiatives have been contributing to increase the number of internet users. At present six cellular phone operators have covered 64 districts by 3G and about 159 Internet Service Provider (ISP) services to all 64- district headquarters and 165 Upazilas out of 465. Government owned Bangladesh Telecommunication Company Limited has provided internet service through both Public Switched Telephone Network (PSTN) to all 64-districts and 465 Upzilla, and Digital Data Network (DDN) to 41 district headquarters. Available data (Table 5.1) indicates that mobile internet service has tremendously contributed to increase the number of internet subscribers in the country.

Table 5.9: Internet Subscribers in Bangladesh April, 2016

Operators	Internet Subscribers (figure in million)
Mobile Internet	58.661
WiMAX	0.124
ISP + PSTN	3.219
Total	62.004

Source: www.btrc.gov.bd (accessed on 21 June 2016)

As the rural people are mostly out of reach of internet use the Government has taken initiatives to extend Internet facilities to rural levels as well as reduce the digital gap between rural and urban peoples. In this regard, two initiatives are appreciated-one is to set up Digital Centre (cyber kiosks) at the Union, the Pourasabha and the City Corporation complex to ensure public access to information and second is 'Optical Fibre Cable Network Development' project which has been implementing to link gradually all unions to high speed internet.

Along with strengthening internet infrastructure and growing number of internet users, the numbers of social media users are also increasing. However there is no notable research on social media use in Bangladesh, ITU Bangladesh claim that the number of Facebook users in Bangladesh was only 10,000 in 2008 which is increased to 28000000 in November 2015 with a penetration rate of 16.6% (Internet World Stats). Another survey shows that 99.3% of total social media subscribers used facebook (Table 5.10). One of the major reasons for rapid growing of facebook use in Bangladesh is smartphone penetration. Smartphone enables the subscriber to access to internet across the country. According to a recent survey conducted by Counterpoint Technology Market Research shows that the number of Smartphone users in Bangladesh has increased by 3.1 million to 8.2 million in 2015.

Table 5.10: Social Media Users in Bangladesh

Bangladesh	Number of Subscriber
Facebook	99.3%
Twitter	0.34%
Tumblr (Blog)	0.11%
YouTube	0.09%
Google+	0.05%
Other	0.11%
Total Social Media User	100%

Source: www.statesmonkey.com (accessed on 18-06-2016)

5.3.2. Social Media Use in Government: Present Status

Including all Deputy Commissioner's offices and Divisional Commissioner's offices more than 800 government organizations have presence in social media with their official facebook page/group, and a few organizations have blogs and youtube channels. Hence, it can be said that government departments are mostly using facebook. A review of social media use in government organizations shown in Table 5.11 reflects that from ministry to field administration (DC office and UPZ) facebook is widely embraced to improve service delivery. Facebook was initially started to use in government organizations by some government officers with their own initiatives for problem solution and response to public comment.

Table 5.11: Social Media Usages in Bangladesh Government Organization

Name of the Office	Number	FB Page/Group
Ministry and	All	61
Directorate/Department	All	351
Divisional Commissioners' Offices	All	08
District Commissioners' offices	All	64
UPZ	All	489

5.3.3. Page Structure and Content Analysis: Selected Government Facebook Pages and Groups

In this study seven government facebook pages from seven different organizations and some selected open and closed facebook group (Public Service Innovation-Bangladesh, five closed from DSS and a public group of Barisal DC office) were also chosen for in depth analysis. Facebook page structure, content, public engagement rate including number of likes, PTAT, posts per day and types of posts were analysed for particular time period to understand their activities and public engagement. .

An analysis of facebook page structure shown in Table 5.12 indicates that among the seven pages only one page specifically mentioned its goals and objects while other pages only provided office address and location.

Table 5.12: Page Structure of selected Facebook pages

Tabs or Org.	Fire Service	Tourism Board	BRTA	DC Office Sunamganj	DC Office Kushtia	Airport Customs HSIA, Dhaka	Department of Immigration and Passports
Page Info	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Wall (Visitor's Posts)	Yes	Yes	Yes	Yes	Yes	No	Yes
Notes	No	No	Yes	No	No	No	No
Reviews	Yes	Yes	Yes	No	No	No	No
Photos	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Videos	Yes	Yes	Yes	Yes	Yes	No	No
Special Tabs (Pool, Link to other page, countdowns etc.)	No	Yes (Pool)	No	No	No	No	No
Page Boosting	No	No	No	No	No	No	No
Events	No	Yes	Yes	Yes	Yes	No	No
About	No	Information not specified	No	No	No	No	No
Website link	Specified	(Yes)	Yes	Yes	Yes	Not specified	Yes
Everyone can send to message?	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Hashtags	No	Using	No	No	No	No	No

Source: Analysis by Research Team

All pages had the mandatory elements such as Wall and info tab. Bangladesh Tourism Board alone uses hastags and a special tab for public poll. Airport Customs: HSIA, Dhaka had no option for public post. However this page adopts a one way communication strategy, public can make comments on administrators post. Among the seven pages DC office Kushtia, DC office Sunamgonj and BRTA created 'event' tab to announce upcoming event and each page was found with an event details. However, page or post boasting is very common in the commercial sector but it can also be happened in government sector also. Analyzing the seven facebook pages we did not find any page which boast their post or page for increasing popularity or creating public awareness. But relevant department or organizations add facebook icon on their website as well as website link is added on the facebook so that user can easily switch from website to facebook and vice versa.

For examining the page activity all seven pages were analysed by 'Facebook Analyzer' on the same day. Data presented in Table 5.13 shows that all pages were liked by about five to eighteen thousands people, the 'Fire Service and Civil Defence' was liked by highest number of audiences (17975) followed by 'DC office: Kushtia' with 15704 likes and BRTA with 15109 likes. Highest rate of 'likes growth' (67.75%) and 'public engagement' (37.92%) indicate that 'Airport Customs: HSIA' is increasingly gaining users attention.Each pages contained photos except 'Passport and Immigration'. Most of the text posts' length ranges between 100-500 characters and many of them are posted with photos. After reviewing the selected facebook pages, 'DC Office Kushtia' was found strongly active in terms of number of posts per day, response to audiences and public feedback.

Table 5.13: Performance of Selected Facebook pages (19 June 2016)

Page Performance Indicators	Fire Service and Civil Defence	Bangladesh Tourism Board	Airport Customs : HSIA, Dhaka	Department of Immigration & Passports	DC Office- Kushtia	Bangladesh Road Transport Authority (BRTA)	DC Office Sunamganj
Likes	17,975	5,601	8,270	10,992	15,704	15,109	4,526
Likes Growth	7.38%	11.68%	67.75%	49.19%	5.69%	34.37%	4.21%
PTAT (People Talking About this)	2,213	97	3,136	266	2,659	5,329	702
Engagement Rate	12.31%	1.73%	37.92%	2.42%	16.93%	35.27%	15.51%
Posts per Day	0.74	0.24	1.29	0.40	5.07	0.59	1.31
Post (Photos)	62.5%	100%	50%		87.5%	83.3%	95.8%
Post (Text)	4.2%	-	50%	100%	4.2%	4.2%	4.2%
Post (Video)	8.3%	-	4.2%	-	12.5%	-	-
Checkins	25%	-	45.8%	-	12.5%	12.5%	-
Likes, Comments & Shares per post	373	59	115	41	151	318	128
Length of posts	100 - 500 characters	>100 characters	>100 characters	>100 characters	>100 characters	>100 characters	100-500 characters

Source: data calculated by using 'www.likealyzer.com'

In this study we analyzed seven facebook pages' content to understand both administrators and audience behaviour. All posts of the selected facebook pages from 01 to 31 January, 2016 were first categorized into nine types and then posts were further categorized by administrators and citizens. For a comparative analysis content was again analysed from 01-30 May 2016. Analysing the wall posts it is evidenced that the majority of the users upload photos, seeking information and sharing content while the majority of the administrators' posts related to departmental

activities like official meeting, visiting public places, taking action on public grievances/complains, public notice or announcement and event promotion (Table 5.13).

The presence of selected government offices on facebook and its impact on public service delivery are discussed in the following paragraphs. The research data is presented both in tabular and case study format.

DC Offices: Kushtia and Sunamgonj
District administration (popularly known as DC office) is located at all 64 district headquarters of the country and a focal administrative unit. Apart from review business DC office is responsible for dealing with public service delivery, welfare being of the local community and implementing policy or program taken by the central government. With the a2i intervention and personal motivation all DC offices created their official facebook page (in addition FB page, Barisal DC office has a facebook group named 'Barisal Problems and Prospects') for increasing public engagement with the field administration as well as improving public service delivery. Among the 64 DC offices two FB pages and a group were selected for in depth analysis.

Table 5.14: Performance of Selected facebook pages (February 24 2016)

Page Performance Indicators	Fire Service and Civil Defence	Bangladesh Tourism Board	Airport Customs : HSIA, Dhaka	Department of Immigration & Passports	DC Office-Kushtia	Bangladesh Road Transport Authority (BRTA)	DC Office Sunamganj
Likes	9,362	4506	3473	10,992	13159	8,829	3,352
Likes Growth	6.87%	0.57%	4.99%	49.19%	4.93%	14.48%	4.13%
PTAT (People Talking About This)	1,522	490	353	266	1,769	309	464
Engagement Rate	16.26%	10.87%	10.16	2.42%	13.44%	3.5%	13.84%
Posts per Day	0.66 %	1.74%	0.87	0.40	10.80	0.38	1.22
Post (Photos)	95.8%		45.8%		83.3%	66.7%	87.5%
Post (Text)	4.2%	91.7%	50%	100%	4.2%	20.8%	12.5%
Post (Video)			4.2%		12.5%	12.5%	0%
Likes, Comments & Shares per post	325	60	54	41	129	94	63
Length of posts	100 - 500 characters	>100 characters	>100 characters	>100 characters	>100 characters	>100 characters	100-500 characters

Source: data calculated by using 'www.likealyzer.com'

The 'DC Office Kushtia' (https://www.facebook.com/dcofficekushtia) facebook page was created on 26 January 2014 with the aim of building up a bridge between district administration and citizens, and providing service and information dissemination to the citizens living in Kushtia. With the same objectives DC office Sunamgonj facebook page (https://www.facebook.com/dcsunamganj) was created on July 5 2014.

Table 5.15: Content Analysis of Selected facebook pages (January 01-31, 2016)

Nature of Content	Fire Service & Civil Defense		DC Office, Kushtia		BRTA		Airport Customs : HSIA, Dhaka		Tourism Board		Department of Passport and Immigration		DC Office, Sunamganj	
	Admin's Posts	Users' Posts	Admin's Posts	Users' Posts	Admin's Posts	Users' Posts	Admin's Posts	Users' Posts	Admin's Posts	Users' Posts	Admin's Posts	Users' Posts	Admin's Posts	Users' Posts
Event Promotion	2		5	4					28	0			3	0
Public Service Announcement	11		11	3					0	0			1	0
Emergency Broadcast	0		0	0					0				0	0
Public Awareness	3		6	9					0				1	3
Department activities	17		28	0									11	0
Service Promotion	1		16	0									5	0
Seeking Information and Service	0	16	0	27			17						0	3
Sharing Content	4		29	34			23						7	13
Thanks giving and appreciation	0		0	10									0	0
Others														-
Total	38	36	95	92	8	32	36		35			12	28	19

Source: Data calculated by research team

From the content analysis (Table 5.15) we found that all most similar number of content was posted by the dministrators and the citizens on DC Office Kushtia FB while number administrators' post is higher than the citizens on DC Office Sonumgonj. In both cases, majority of contents posted by the administrators were about departmental activities and drawing public attention on their events/program and there are comments on them by the users. ajority of the users of Kushtia posted request seeking information, some comments were replied by other users and some are replied by the administrators (Table 5.15 & 5.16).

Only three posts were found on DC office Sunamgonj seeking information, sharing content like photos and news. DC Office Kushtia posted 7081 photos while DC Office Sunamgonj posted 2896 photos. Most of the photos were posted by the administrators focusing official activities. Users also posted some photos (279 on Kushtia and 124 on Sunamgonj) and these were mostly sharing screen shots, news keeping, seeking help for old aged, widow and disability allowances, repairing roads and culverts, and informing social problems including drug abuse. In both cases PTAT and public engagement rate has increased which means that they have a lot of engaged followers. Comparatively, DC Office Kushtia is much more active than the DC Office Sunamgonj (Table 5.13 & 5.14). Here Facebook engagement rate indicate the percentage of people who saw a post that reacted to, shared, clicked or commented on it. It is happened because DC Kushtia himself has been an active advocate of facebook use.

Bangladesh Fire Service and Civil Defence
Bangladesh Fire Service and Civil Defence (https://www.facebook.com/fscd.bd/) is a service oriented first responding government organization under the Ministry of Home Affairs. The purpose of FB page seems to be to create public awareness about disaster and accident as well as to respond to emergency public call. Through this page organization disseminates information and answer public quarries. Analysing the page structure and performance it was found that mandatory tabs are available but no special tab was used. The page did not mention its goals and objectives but it has website link where organizational history and objectives are clearly specified. Page performance data of June 2016 shows that its likes' growth is 7.38% and PTAT 2213 which is higher than the performance rate of January 2016. Hence it can be said that the page is gradually becoming active. Analysing the page content it was found that most of the administrator's posts were about organizational activities and majority users' posts were related to job oriented questions/quarries. Altogether 3284 photos and 17 videos were uploaded by the administrator and most of them were about life savaging activities and public awareness. The users also posted 279 photos, many of these photos were organizational activity related and some personal photos were also uploaded which were not found relevant to the page.

Airport Customs: HSIA, Dhaka
Airport Customs: HSIA facebook page (https://www.facebook.com/customs.hsia) was created on May 21, 2015. The main goal of the organization is to prevent smuggling and collect revenue. The page had info tab but there is nothing mentioned about goal and objective of this page. There is no option for visitor post on wall but the visitor can send a message and make a comment on administrator's post. Altogether 318 photos were uploaded by the administrator but no video clip was found in this page. Photos were loaded to inform their official activities and creating public awareness against smuggling and violating custom law. Different official notice and job copy were also posted but no personal photo was found on this page. Page performance data shows that number of PTAT, likes and engagement rate has considerably increased from 24 February to 19 June 2016. This date indicates the page is getting more popular and thus more engaging.

Bangladesh Road Transport Authority (BRTA)
This page (https://www.facebook.com/brta.bd) was created on 15 December 2013. The aim and objective of this page seemed to be to inform the citizens about their departmental activities and answering public quarries. However such information is not specifically mention on about tab. In this page users are allowed to post their comments and quarries. Like other pages number of PTAT, likes and engagement rate has considerably increased from 24 February to 19 June 2016. On this page altogether 273 photos were uploaded by the administrator and 142 photos were uploaded by the users. Most of the administrators' posts were about departmental activities while users posted on wall mainly seeking information (Table 5.16). This page was found devoted to provide service related information and increasing public awareness about road safety.

Table 5.16: Content Analysis of Selected facebook pages (May 1-31, 2016)

Nature of Content	Fire Service & Civil Defense		DC Office, Kushtia		BRTA		Airport Customs : HSIA, Dhaka		Tourism Board		Department of Passport and Immigration		DC Office, Sunamganj	
	Admin's Posts	Users' Posts	Admin's Posts	Users' Posts	Admin's Posts	Users' Posts	Admin's Posts	Users' Posts	Admin's Posts	Users' Posts	Admin's Posts	Users' Posts	Admin's Posts	Users' Posts
Event Promotion		0	5	3		0	0	0	0	0			0	0
Public Service Announcement		0	6	5		2	0	0	0	0			0	0
Emergency Broadcast		0	0	0		0	0	0	0	0			0	0
Public Awareness		1	2	18		3	5	0	0	0			1	1
Departmental Activities	0	0	29	23		0	3	0	0	0			32	3
Service Promotion		8	14	21		1	21	0	0	0			7	0
Seeking		18	37	86		32	0	0	0	0			0	4

Information and Service														
Sharing Content	8	30	58		8	23	0	0	0			2	4
Thanks Giving and Appreciation	5	1	16		4	0	0	0	0			0	6
Others	2	0	11		1	2	0	0	0			0	3
Total	7	42	124	241	5	51	54	0	0	0			42	21

N.B. Department of Passport and Immigration Facebook page is not available in this month

Bangladesh Tourism Board
Bangladesh Tourism Board works under the ministry of Civil Aviation and Tourism to promote a positive ammage of Bangladesh to the world and to develop tourism market of country. The board has facebook page (https://www.facebook.com/Bangladesh TourismBoard.gov/) which was liked by 5601 with 11.68% likes growth. Page performance data analysis shows irregular presence of page administrator as well as users. No content was posted in May 2016 from the admin and the users. Hence the page engagement rate and PTAT have fallen down (Table 5.13 & 5.14). Earlier data (Table 5.14) shows that 35 contents were posted by the administrator in January 2016 but no user post was found that time.

Department of Immigration & Passports
Department of Immigration & Passports (https://www.facebook.com/Bangladesh Passports) is working under Ministry of Home affairs to facilitate travelling of Bangladesh Citizens abroad. Every working day people go to divisional and regional offices for issuing and renewing passport. Each passport office has a different facebook page where public can post complains, suggestions, experiences and ask question to the authority seeking information and help. As of February 24, 2016 the page was liked by 1092 and like's growth rate was 49.19%. Wall post analysis shows that administrators' presence in the page was seen very irregular even than the users. As of January 2016, only a single post was found in the wall from the administrator' site and it was about departmental activity related. The users posted 12 consents on the wall of them 9 were seeking information, one was sharing post, one was event promotion and remaining was about public awareness. Hence the public engagement rate was only 2.42%.

Facebook Group: A Discussion Platform
Some of the government organizations have facebook groups where only particular group of employee can be member which means that those are closed group. These facebook groups were created for internal purpose only. There are also some public facebook group where government officers as well as citizen can be a member and participate in the discussion. In this study both open and closed groups were purposively selected for in-depth analysis.

Public Service Innovation-Bangladesh
Public Service Innovation Bangladesh is an open platform for government officers to discuss service innovation, policy issues, sharing new ideas and experiences (www.facebook.com/groups/publicserviceinnovationblog). As of June 22, 2016 this group had 8160 members. Goal and objective of this pages are clearly mentioned in 'Description' tab. From the description it is expected that the users can provide essential contributions to service innovation as well as to serve the community.

This discussion forum adopts a dynamic approach for engaging the users- top level government officers (i.e. Principle Secretary, Cabinet secretary) are involved with this site as advisor of the moderation team (formed with some government officers and selected officials from a2i). Reviewing some randomly selected posts it is appeared that some senior secretaries participated in the discussion and inspired other users for their content, ideas, innovation, initiatives and welcomed them to make comment on their posts. Hence it became a good place for the junior and mid-level government officers to interact with the top level government officers without any barrier or protocol which was really unbelievable for them earlier.

Most of the user posts were about their activities including providing service to the citizens, implementation of news ideas, impact of using government facebook page on service deliver process and public engagement, receiving reward from the superior authority and, shared news and information. Analyzing seven days (June 16-22, 2016) group activity GRYTICS shows that total 76 contents were posted in this time period and 657 comments were made on these posts. Data also shows that 953 members were active during the analysing time period. Among the top five posts the first one was liked by 180 members, shared by 37 members. 52 members commented on this post and again 56 members replied or showed reaction on their comments. The fifth post of the week were viewed by 158 members, of them 68 members liked, 36 members shared and 22 members commented on this post which were again reacted and replied by remaining 32 members. Hence the engagement score of this site stood at 45.34 on 22 June 2016.

Department of Social Welfare Service
Department of Social Welfare Service is a good example of using facebook for internal communication, problem solution and innovation. The department has five official facebook groups named: Department of Social Welfare, Disability Information System, Innovation in DSS, MIS in DSS and Financial Management in DSS. Each group was created with separate aim and objective. The first one is dedicated for official communication and promoting departmental activities; the second group was created for proving technical support those who are involved the process of identification of disabled people and preparing ID card for them; the third group was created to sharing and promoting departmental innovation, the purpose of fourth group seems to be to manage e-filing activities and the fifth group aims to share and discuss financial management of the department.

Somaj Sheba Odhidoptor (Department of Social Welfare) facebook group was created for internal communication. A total member of the group was 873 on 21 June 2016 and including Director General three senior officers acted as the administrators of this group. Among the group members 569 are departmental employees and remaining users were accepted to join this group because of their professional interest. Departmental profile was clearly mentioned on description tab but goal and objective of this group is not specified. Until 21 June 2016, total 215 official documents were uploaded on this group by the administrators; these documents are mostly official order/memo, notice, guideline for newly appointed officers, job rules etc. Link of other government facebook and webpages are also added to the

files. The discussions were analysed to understand users' behaviour and what is being discussed. Most of the posts were about official activities, events and service related information. A friendly discussion environment was observed between the senior and junior officers. Group members often posted their comments on DG's post and DG also replied to their comments.

'Disability Information System' group was created to provide technical support for making faster and accurate data entry process, and preparing ID card for disabled people. As of 21 June 2016 this group had 862 members including four administrators, among them 535 members are departmental employees and others are working in different government organizations, educational institutions and research organizations. The pictures were uploaded in this site mostly informing working progress and providing advice for data entry. There are 46 documents were uploaded on 'files' and these are related to data entry job. The discussion tab showed that users are mostly interested in discussions with their colleagues and administers to progress their data entry job and solving relevant problems. Hence it becomes a platform for problem sharing, solving and inspiring each other. The administrators posts were mainly suggestive and encouraging the members.

Table 5.17: Basic Information of some selected facebook groups

Name of the Group	Type	No of Members	Purpose
Public Service Innovation-Bangladesh	open	8160	To promote and encourage government officers in the area of innovation and service promotion
Department of Social Welfare	closed	873	Internal communication and quick decision making.
Disability Information System'	closed	862	Proving technical support for m making faster and accurate data entry process, and preparing ID card for disabled people
Innovation in DSS	closed	556	Inspiring and mentoring innovative ideas and projects of the DSS officers
MIS in DSS	closed	562	Promoting constructive ideas and helping each other for practising MIS in DSS
Financial Management in DSS	closed	696	Share problems and discussing issues related to financial management.
Barisal Problems and Prospects	open	31015	Discuss and share problems and prospects of Barisal district towards improving public service delivery

'Innovation in DSS' is another facebook group created by the Department of Social Welfare with the purpose of inspiring and mentoring innovative ideas and projects of their own employees. As of 21 June 2016 this group had 556 members of them 21 members were included this group from outside the department. Including DG three officers administer this page. For the group members nine different official documents were uploaded on 'files'. These were all related to service innovation. Most of the post and comments were related to new ideas, experience and suggestions. There are many comments posted by the DG many of them are inspiring new ideas and initiatives and some of them are suggestive. Members also commented on his post mostly seeking advice and giving thanks for his mentoring role.

'MIS in DSS' was created by the DSS on 20 December 2015 with the aim of promoting constructive ideas and helping each other for practising MIS in DSS. Information provided in 'Description' tab clearly mentioned that this group is created according to the direction of DG to achieve above mentioned goal and objective. As of 21 June 2016 the group had 563 members and an administrator. Including MIS user manual five official documents were uploaded by the administrator which can be downloaded by any member from 'files' tab. Most of administrator and users' post were related to MIS software management, e-filing, problem solution and some video tutorials were also uploaded by the users. Posts were mostly positive comments and suggestive. Users expected that this site will help them in data MIS data processing and delivering public service quickly.

A new closed group named 'Financial Management in DSS' was created by the department on May 10, 2016 to share problems and answering questions related to financial management. As of June 21, 2016 total 696 users joined this group. Three administrators maintain this site. Reviewing discussion posts from May 10 to June 21, 2016 it is appeared that all discussion posts were about departmental budget, financial allocation for government child homes, paying Bill-Boucher, officer orders and some course modules were also uploaded by the users. There four official documents are uploaded at 'files' tab which can be downloaded by any group member.

From the above discussion it can be said that the issue based face group is very much helpful for internal communication and organizational management. Users according to their choice and need can be a member of relevant group and can contribute towards decision making. With an interview DG explained how they are trying to change the way of managing official activates through facebook. He appreciated his colleagues for adopting facebook as a tool for managing official affairs. He also claimed that the use of facebook in his organization help to reduce time, cost and visit for monitoring and supervising filed offices. Again he stated that facebook make it easy for him to take quick decision and disseminate it to his colleagues for implementation. He claimed that organizational and cultural changes have already been made so that subordinate officers never feel hesitate to make comment on his post. Over the last few years there is a visible change found in the bureaucracy- breaking the traditional practise and culture senior and junior officers gradually becoming close, they share their ideas and views with each other through facebook and comments on each other post.

Barisal Problems and Prospects
The purpose of this group is to discuss and share of problems and prospects of Barisal district. Any citizens who are interested about Barisal can be a member of this group. DC Barishal has opened a group named 'Barisal Problems and Prospects' (https://www.facebook.com/groups/BarisalProblemProspect) on 13 August 2015. DC himself is the main moderator of this group. This group had 3500 members on January 12, 2016 which has increased to 31015 on 21 June 2016. Analysing the discussion posts this group was found very active; between 14 and 21 June 2016 total 7364 members were found active and they posted 273 discussion posts and 3827 comments on them. It is worth mentioning that number of irrelevant posts was found very few. The photos were mostly uploaded focusing on problems and some photos were on official activities. This group has a different approach, most of the dissuasion focused on different problems including environmental hazard, social problem, administrative corruption and

irregularities. Many comments were posted addressing the Deputy Commissioner and he replied duly. From the group discussion and comments members were found very much positive about district administration and they often show their willingness to help the administration. In fact, performance of DC Barisal seems to have a positive impact on group members' behaviour. There are many examples of quick response to public issues and solved problem accordingly by the district administration. Hence the public engagement is quite high (as of 21 June 2016, public engagement rate was 140.44).

5.3.4. Benefits of Using Government facebook page/group

For this study three focus group discussion meetings were held in three districts in January 2016 involving government officers and citizens like students, college teachers, journalists, lawyers and UDC entrepreneurs. The discussions were designed to gather information from the audience in regard to understand the impact of social media use in government organizations as well as to find out the challenges of using it. The participants were also asked about the social media guideline for government organizations. Altogether 42 participants took part in FGDs.

In general participants were found very much positive when they were talking about the benefits of facebook use in government organizations (as the government organizations mainly use the facebook). In all four FGDs most of the participants argued that facebook use has reduced the gap between citizens and the government officers. A few of them said that they still hesitate to write or post comments on government page from fear but they agreed with others that public engagement can be increased by using facebook. One of the major benefits of government facebook page use is that it has become easier getting information from the government office; user can ask any question directly to the DC seeking information/service or complaining, and get proper reply and action on it. The following case illustrates the case of Jail canal which has been recovered from the encroachers demolishing illegal structures on the basis of public request posted in *Barishal Problems and Prospects* facebook group.

Recovering Jail Canal from Encroachers

19 April 2016, 2.31 pm
One group member named Momena Shifa Rumki posted a comment with a picture of *Jail Khal* drawing attention of the district administration to stop environmental damage by earth filling on it and to protect all the canals situated within Barisal City. By next day (20 April 2016 from 03.09pm- 09.58pm) 17 group members posted their comments supporting her post. Following the facebook group initiative more than 300 Students of Barisal Town High school have signed a petition in order to eradicate illegal structures from the Jail Khal of Barisal city and handed over this to DC.

29 April 2016, 10:45pm
On the basis of above post and public support DC Barisal informed the issue to the Barisal City Corporation for taking necessary action in this regard and posted the copy of this letter to the FB Group.

4 May 2016 at 3:17pm
DC posted his comments with relevant pictures about the actions that have been taken by him to recover the canal from encroachers. The post said that along with the Barisal City Corporation many illegal structures were demolished from *Jail Khal* banks including shops, storehouses and houses. Upon his action many group members instantly replied him giving thanks and appreciation. Recovering action is still going forward.

5.3.5. Problems and Challenges: Public Perception

FGD respondents were asked question about the problems and risk of using government facebook page/group. In response to above questions 36 respondents identified multiple problems and risks. About 14% respondents said that they did not feel any problem or risk using government facebook page/group.

S.N.	Problems and Risks	Frequency	Per cent
1.	User may be fallen into trouble if they posted about administrative problem or any fault	11	26.19
2.	It might be hard to maintain administrative privacy	10	23.80
3.	Government officers may be influenced to take action hurriedly which may be not appropriate	9	21.43
4.	Differences may be arose between government policy and its explanation from field administration	20	40.8
5.	No problem at all	6	14.3

The FGD participants were also asked to identify the challenges of using government facebook page/group. Respondents freely took participation in the discussion and identified the following challenges and suggested remedies:

Challenges	Suggestions
Many people do not know about the government facebook page/group	- Make publicize through printing and electronic media ; - Organizations may use their facebook account link to all type of banner, poster, invitation letter and billboard.
Many users are not aware enough about the objective of government facebook page and hence they post whatever they like	-Page/group objectives should be clearly mentioned in a Pin Post or About Tab - Administrator posts should be informative and public oriented
Sometimes administrator does not response to public post properly	Administrator/s should response to public comments within a possible short time otherwise users will lose their interest following the relevant page.
Government page is not verified, there are several pages in the name of same organization and	-Page should be varied -All government pages should have unique format

| therefore user become confuse | |
| Slow internet connectivity and expensive internet bandwidth ; | Government may take initiative to improve internet speed and reduce internet bandwidth price so that ordinary and rural people can use internet. |

Despite the challenges respondents claimed that facebook is an effective means to keep contact with the citizens because of its constant access and easiness, secondly Bangladeshi people mostly use facebook rather than any other social networking sites, and thirdly number of facebook users in Bangladesh is growing rapidly.

6. DISCUSSION AND CONCLUDING REMARKS

From the above discussion it is appeared that government organizations use facebook page and groups with different goals and objectives: one of the foremost goals is to communicate with the public in a new way, secondly for internal communication and thirdly for encouraging service innovation, sharing knowledge and problem solution. Using social media especially facebook for government organizations means that they are moving toward interacting with the citizens in new ways. Some of the organizations were found successful in engaging the citizens by giving quick response to public post and taking action on importance public issues. It is also true that government facebook pages/groups provided the space for public discussion and often interacting with the government officers. DC office facebook page/group activities indicate that the public engagement has rapidly increased and service delivery has improved. The distance between government officers and citizens has reduced.

Breaking the established tradition government organizations are coming out from red-tapism through adopting facebook as a tool for internal communication and decision making. Example of DSS shows that how decisions are promptly taken by the DG on the basis of facebook posts and giving direction to his subordinates. In earlier days DG of the same organization took several days even week for taking a decision and it took again several days for implementation. The activities of 'Public Service Innovation Bangladesh' facebook group show the new style of relationship between senior and junior government officers. There is no restriction for the junior most officers asking question or seeking advice to the top most senior government officer by giving a post on facebook wall and senior officers also do not neglect to appreciate his/her junior colleagues for their innovation.

The study reveals that organizational integration and behaviour pattern has positively changed and in turn productivity has increased. For example office hour is not more limited 9am to 5pm. Officers were found presence in the facebook even at the mid night and answering public quarries, giving direction to the subordinate and taking action on public demand. This is a major impact that the social media has had on the bureaucratic culture of Bangladesh. However social media use in government in Bangladesh is relatively new, the government organizations and citizens are increasingly using social media especially facebook for different purposes. Social media have the potential to improve organizational transparency, accountability, service delivery and decision making. Despite those opportunities there are also some problems, risks and challenges related to privacy, account management, audience behaviour, ICT infrastructure and publicity. Government should take possible approaches for addressing those problems, risks and challenges.

At the present era of development, using social media has significant impact. Through using social media, people can communicate with their required authority whenever they need any help. However, in case of Bangladesh, social media use in government is a new concept. Now the number of social media especially Facebook users in government organizations and citizens has been increasing. In this case, the challenge is that, most of the people are not aware about government facebook page or group. Therefore it is required to make publicize through mass media about the public service facebook page or group, so that people can get the desired information and services using social media.

In Bangladesh, there is a substantial impact of using social media in the organizational integration. Because of using social media, people can enjoy facilities as they can get their required information. There are online service providers who provide services through different social media round the clock. Therefore, there is no fixed time for getting the required information and people are being benefited. However, if the people have the knowledge about the services of government facebook page or group, they can share their problems and opinions on that site. Therefore, people should know about the services of these pages or groups as they can share their problems properly.

Social media has both the benefits and challenges. Many people are not willing to share their problems on the social media as everyone can see the posts. Many of them restrain themselves from posting problems on the online social site. On the other hand, by sharing the problems, people can directly contact with the responsible authority, which may not be possible if they try to meet them fact to face. For enjoying the benefits, it is critical to address the challenges which restrain people from sharing the problems and opinions through social media. The awareness should be raised among the people to use social media. Thus social media can improve service delivery and government-citizen interaction.

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