

Success and Failure Factors for e-Government projects implementation in developing countries: A study on the perception of government officials of Bangladesh

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Abstract:

e-Government is considered as one of the most powerful tool to spread digital dividend across different social segments of any developing country. The current research has attempted to assess current level awareness about e-government initiatives among government employees of Bangladesh. This research conducted a survey regarding the perception of a recent e-government initiative of Bangladesh named e-Citizens Service Application among government officials. This paper explains the relationship exists between the awareness, effect of awareness creation on the value towards the e-government initiatives of Bangladesh government employees. An attempt has made to identify the responsible authority who should promote e-government in Bangladesh in views of government officials. The main focus of this paper was to replicate factor model to identify success and failure factors considered as critical in implementing e-government of Bangladesh. This paper concludes by listing most critical success and failure factors relating to e-government implementation in Bangladesh.

Key words: e-Government, developing country, digital divide, Bangladesh, e-citizens,

1. Introduction

Extent of digital dividend is numerous. One way to attain the benefit is to ensuring access to government services through electronic media. There is strong presence of digital divide among developing and least developed countries. However, in terms of access to ICT recent raise of middleman access agencies are playing vital role to bring access to network to under-privilege citizens in Bangladesh. Middleman access agencies are the small business entrepreneur who runs cybercafé and they provided value added services by browsing on behalf of the customer. One of the recent phenomena was application to USA diversity visa application where application needed to be lodged online served as an evident of the demand and presence of middleman access agencies. The middleman access agencies, for a fee, submitted the applications of their customers. It shows that access to internet and other electronic media is possible to bring through middleman agencies even to the rural people if there are enough motivating reasons.

In Bangladesh, cost of accessing government services and even information is very high. It goes even higher if we add the cost of transportation top of the un-official service cost. While most of the government forms are free, access to those forms to somewhat difficult which require paying identified brokers waiting in front of the relevant offices in getting the forms. With this background government recently has taken several e-government services for ensuring easy access to government information and success. Despite being technically sound, most of the project couldn't achieve their desired success. The indicators used for measuring success used in this research are awareness of the initiative and use of the initiative. The example project used in this study is Bangladesh government e-Citizens Service Application (www.forms.gov.bd) portal. Many important government forms are downloadable form this portal. A sample perception study has been conducted among citizens with internet access to assess the reaction of e-Citizens Service Application portal. Surprisingly, every

interviewee out of 160 has appreciated this initiative where none of them were aware about this service prior to the interviews. With this background, current study has tried to identify the reasons for not achieving success of this projects as perceived by government officials of Bangladesh.

2. Origin and Background of the study

A lot of focus has been given on the technical factors for e-governments like technical readiness assessment of Bangladesh for implementing e-government. Many government and non-government agencies have conducted several project based study for technical factor assessment. Even the component like training is also focused on the educating new technology relating to e-government to the employees of implementing agencies. However, the success of e-government largely depends on the government along with “e”. This overwhelming focus on “e” births the motivation to do the research on the non-technical environment of Bangladesh like political desire, vision and strategy, project management capacity etc. in respect to e-government implementation. In fact, there is a real shortage of evaluation of non technical factors that contribute to adopt technology transfer. One case has been presented by Professor Richard Heeks is about the national databank project in Bangladesh. Planning commission of Bangladesh had taken an initiative to make official statistics available to government ministries, NGOs, and general stakeholders for government and public use. Annual investment cost varies but only for network infrastructure it had spent US\$440,000 during 1999/2000. However, this project was total failure as it failed to make any development between inter-ministries. LAN was only within the planning commission and no statistical data was visible (Heeks, 2003). Professor Heeks (2003) identified lack of human resource practice, lack of leadership and poor government-supplier relation as the major reasons for failure. The experience of Bangladesh Garments Manufacturers and Exporters Association (BGMEA) in implementing National Portal for Garments Industry (www.bangladeshgarments.info) is another example where having all the technical and financial capabilities failed to achieve its desired success due to non-technical barriers among the member companies. It is impractical to believe that unlike technology, management strategies of a country can be copied and directly transfer to another country. The technological requirement for implementing e-government is quite simple. Moreover, investment requirement for e-government implementation is also affordable either through internal resources or from the support of international community or the both. Despite those advantages, e-Government implementation in Bangladesh is yet to gain momentum. Issues like perception of both government officials and the citizens towards e-government services are ignored from any kind of study.

3. Purpose of the study

The main rationales of this study are as following;

1. To understand current level of awareness exists among government employees.
2. To understand the factors critical to the success and failure of any e-government projects in Bangladesh as being perceived by government officials being the key stakeholders entrusted with implementing e-government.
3. To prioritize the factors based on importance from government employees perception.
4. To recommend a small number of critical factors that should bring into attention for any e-Government project implementation in Bangladesh.

4. Methodology

Definition: Okot-Uma has defined e-government as “e-government refers to the processes and structures pertinent to the electronic delivery of government services to the public” (Okot-Uma, 2001). Drucker defined e-government as “In its simplest sense, e-government can be said to about the use of emerging information and communication technologies to facilitate the processes of government and public administration. In reality, though, e-government is real about choice. It is

about providing citizens with ability to choose the manner in which they wish to interact with the governments. And it is about the choices governments make about how information communication technologies will be deployed to support citizen's choices." (Drucker, 2001). In this study, e-Government refers to the electronic delivery of government information and services to the citizens.

Selection of sample: Non-probabilistic judgmental sampling was used to select population elements among government employees of Bangladesh (Malhotra, 2004). Total 112 units of questionnaire were used by 112 investigators targeting only to the government officials. Out of the total 112 questionnaire 105 samples has been qualified and 100 samples has been selected for this study. Undergraduate students of Business administration were participated in the survey.

Collection of data: Primary data were collected using survey method. The formal face to face interviews were conducted through semi-structured questionnaire. A print out the home page of the e-Citizens Service Application portal was carried out by the investigators to create awareness about the issue among the respondents. Interview was carried out by the students of business administration at undergraduate level. They were given proper training about the e-Government concepts and data collection procedure before going to the field. Each investigator can conduct only one questionnaire. Moreover, follow-up random telephone calls were made by the researchers to verify the integrity of data. Respondents were from 45 different government agencies including Bangladesh Parliament, Bangladesh Railway, Bangladesh Small and Cottage Industries Corporation, Central Bank of Bangladesh, Dhaka Electric Supply Authority, Dhaka Shishu Hospital, Dhaka University, Dhaka WASA, Government Bank, Local Government Engineering Department, Local Government Rural Department, Ministry of Establishment. Ministry of Agriculture, Ministry of Communication, Ministry of Education, Ministry of Foreign Affairs, Ministry of Forest, Ministry of Gas, Mineral and Energy, Ministry of Home Affairs, Ministry of Health and Family Welfare, Ministry of Information, Ministry of Jute and Textile, Ministry of Land, Ministry of Planning, Ministry of Science and Technology, Ministry of Social Welfare, National Board of Revenue, etc. Maximum number of respondents from a single department was 10 and most of the department's had 1 to 3 respondents each.

Processing and analysis of data: Data collected through survey was coded by the researchers and analyze using SPSS. Interpretation of SPSS results were carried out by the researchers.

5. Limitation of the study

The factors used in this study were identified and developed based on the factor model which is broader global context. There is scope of identification of factors specific to Bangladesh. Due to limited time and lack of availability Focus Group Discussions (FGD) could not be conducted. There is a scope of FGD with government employees to cross check the findings of this study.

6. Analysis and discussion

The project used in this study is Bangladesh government e-Citizens Service Application (www.forms.gov.bd) portal. Most of the important government forms are downloadable form this portal. This project is managed by the Prime Ministers Office. At the beginning of the interview, the respondents were asked about the project. If they were unaware, the investigator showed the printout of the web portal and briefed them about the project and general e-government concepts. Professor Richard Heeks of Manchester University, in his factor model has identified several factors for e-Government project success and failure in developing countries (Heeks, 2003). In the questionnaire, factors for success and failure options are being replicated from the Factor Model of Professor Richard Heeks. Definition of the factors as defined by Heeks is listed below (Heeks, 2003):

6.1 Success Factors

Internal political desire has been defined as a drive from key government officials including relevant ministers for reform and for achievement of e-government goals.

Overall vision and strategy stands for the overall vision and master plan for good governance and for e-government, identifying the target and viewing IT as the means not the end, and integrating IT with broader reform objectives

Dominance of politics/ Self interest: the change agents who will take the project forward may have self interest and/or politically dominant situation favorable to the project initiative.

Strong change management which includes but not limited to leadership with a project champion, use of incentives to create commitment to and ownership of e-government project, and stakeholder involvement to build support and minimize resistance.

Effective project management includes defining clear responsibilities, having good planning and consideration of risk, good monitoring and control system putting in place, good organization of resources, and well-managed partnerships between public agencies, and public-private joint initiatives.

Competencies among the officials involve with this project is the issues of the capacity and knowledge level among the government officials about e-government concepts and practices.

Adequate technological infrastructure includes computerization system, telecom policies, ICT policies etc.

Other factor, being the last, was given to list any factor that respondents believe important but not presented as option.

6.2 Failure factors

Absences of success factors are presented as the reasons for failure of e-government projects in Bangladesh. For example, lack of internal political desire was the first option as the failure factor. Moreover, number and pattern of options specified as the failure factors were same as success factor including others as the last option. Assumption here were factor which may contribute for success may not be the main reason for failure due to its absence. For example, political desire along may not be enough to successfully implement e-government. However, lack of political desire may work as a high barrier to implement e-government.

7. Findings of the study

7.1 Issue 1: Awareness about the e-government Portal

The first issue was to measure the current level of awareness among the government officials about the e-Citizens Service Application portal.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	20	20.0	20.6	20.6
	A little bit	26	26.0	26.8	47.4
	No	51	51.0	52.6	100.0
	Total	97	97.0	100.0	
Missing	System	3	3.0		
Total		100	100.0		

Table 1: Awareness about e-Citizens Service Application Portal

Table 1 reveals that majority of the respondents are unaware about the e-Citizens Service Application portal and only 20 percent respondents are aware. A significant portion of the respondents have heard about this initiatives but never tried to this portal.

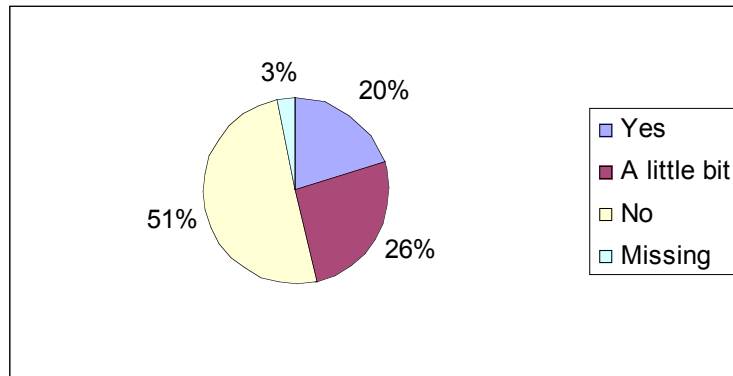


Figure 1: Awareness about e-Citizens Service Application Portal

7.2 Issue 2: Perception about benefit of e-government

Second issue was to understand the perception among the government officials about the benefits of e-government initiative to the citizens. If the respondent answer 'YES' in the first issue, the second issues was directly focused. Otherwise, the investigators showed the print out of the web portal and enlightened the respondents about e-Government concepts. Once respondents achieved basic level of understanding, he was asked to address the second issue.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neither agree nor disagree	6	6.0	6.0	6.0
	Agree	52	52.0	52.0	58.0
	Strongly agree	42	42.0	42.0	100.0
	Total	100	100.0	100.0	

Table 2: Perception about benefit of e-Citizens Service Application Portal

According to the table 2, near about 95 percent respondents agreed that citizens will be benefited by introducing e-government programs and on the other hand only 6 percent of the respondents are still undecided position i.e. neither agree nor disagree or neutral position. Moreover, no one among respondents expressed negative perception about the benefit of e-government portal. In the questionnaire, there were other two options as strongly disagree and disagree about the benefits but no respondent has picked those options.

7.3 Issue 3: Relationship between the level of awareness and perceived benefits

Data were analyzed to see the nature of relationships exist between the levels of awareness with the perception among the government officials about potential benefits of e-Citizens Service Application portal. Table 3 illustrates the result of the cross tabulation analysis between awareness levels of the project used in the study and their perception about the potential benefits of the e-government project. However, investigators conducted a concise briefing using the print out of the web portal for those printout who were either not aware of the project at all or not having clear concept. In the data, only 30 percent of respondents who were aware about e-Citizens Service Application project are extreme optimistic about the potential benefit of project. In contrast, nearly 50 percent of respondents who didn't have any knowledge about the project before strongly agreed with the benefits of e-Citizens Service Application project after concise briefings. Majority of the respondents (66%) among the respondents who neither agree nor disagree with the benefit of the e-Citizens Service Application project are the respondents who already having diminutive information about the project. Only 6.2% of the total respondents are un-sure about the benefits about the e-Citizens Service Application project.

			Benform			Total
			Neither agree nor disagree	Agree	Strongly agree	
Awform	Yes	Count	0	14	6	20
		% within awform	.0%	70.0%	30.0%	100.0%
		% within benform	.0%	27.5%	15.0%	20.6%
		% of Total	.0%	14.4%	6.2%	20.6%
	A little bit	Count	4	12	10	26
		% within awform	15.4%	46.2%	38.5%	100.0%
		% within benform	66.7%	23.5%	25.0%	26.8%
		% of Total	4.1%	12.4%	10.3%	26.8%
	No	Count	2	25	24	51
		% within awform	3.9%	49.0%	47.1%	100.0%
		% within benform	33.3%	49.0%	60.0%	52.6%
		% of Total	2.1%	25.8%	24.7%	52.6%
Total	Count	6	51	40	97	
	% within awform	6.2%	52.6%	41.2%	100.0%	
	% within benform	100.0%	100.0%	100.0%	100.0%	
	% of Total	6.2%	52.6%	41.2%	100.0%	

Table 3: Cross tabulation between awareness level and perceived benefits of e-Citizens Service Application *Portal*

7.4 Issue 4: Who should take the responsibilities to promote e-government initiatives?

Promotion is one of the most significant parts of any e- government implementation process. Opinion was sought to the government officials regarding the responsible authority to promote e-government initiative in Bangladesh. From table 4, it reveals that forty four percent respondents think that private-public partnership initiative is essential to promote the e-government program. About 40 percent of the respondents think that government should take the responsibility to promote this type of e-government initiative to the citizens including government employees. On the other hand, only 3 percent respondents think that international development agencies should promote e-government initiative in Bangladesh.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Government agencies	40	40.0	40.0	40.0
	Private agencies	10	10.0	10.0	50.0
	International development agencies	3	3.0	3.0	53.0
	Private- public initiative	44	44.0	44.0	97.0
	Others	3	3.0	3.0	100.0
	Total	100	100.0	100.0	

Table 4: Responsible authority for promoting e-Citizens Service Application *Portal*

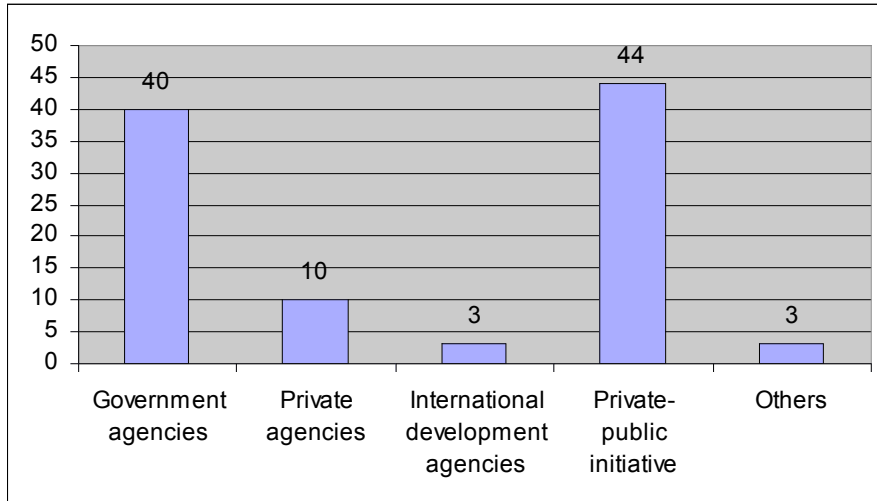


Figure 2: Responsible authority for e-Citizens Service Application Portal

7.5 Issue 5: Success factors for implementing e-government in Bangladesh

According to tables 5, the most important factors for successful implementation of e-government are internal political desire, technological infrastructure and overall vision/strategy. On the other hand, less important factors are dominance of politics/self interest, change management and competencies among the officials.

Factor Name	Count	% of Responses	% of cases	RANK
Internal political desire	27	19.7	28.1	1
Overall vision/ Strategy	22	16.1	22.9	3
Dominance of politics	17	12.4	17.7	5
Strong change management	13	9.5	13.5	6
Efficient project management	18	13.1	18.8	4
Competencies among the officials	13	9.5	13.5	6
Adequate technological infrastructure	26	19.0	27.1	2
Others	1	.7	1.0	7
Total responses	137	100.0	142.7	

Table 5: Success factors for implementing e-government in Bangladesh

7.6 Issue 6: Failure factors in implementing e-government in Bangladesh

According to tables 6, the most critical factors contribute to the failure of e-government implementation are lack of internal political desire, inadequate technological infrastructure and lack of overall vision/strategy. On the other hand, less contributing factors are dominance of politics/self interest, change management and poor project management.

Factor Name	Count	% of Responses	% of cases	RANK
Lack of internal political desire	31	21.4	32.0	1
Lack of overall vision	22	15.2	22.7	3
Dominance of politics	12	8.3	12.4	6
Poor change management	12	8.3	12.4	6
Poor project management	17	11.7	17.5	5
Lack of competencies	20	13.8	20.6	4
Inadequate technological infrastructure	29	20.0	29.9	2
Others	2	1.4	2.1	7
Total responses	145	100.0	149.5	

Table 6: Failure factors in implementing e-government in Bangladesh

7.7 Issue 7: Factor weights

Figure 3 demonstrates how critical each factor is as both success and failure. On an average twenty percent respondents consider internal political desire is the most important factor not only for success but also for failing of any e-government projects. Almost similar weights have been given towards the importance of technological infrastructure for implementation of e-government process. Change management ranked the lowest among all factors considered for both success and failure. Overall vision and strategy was placed as the third important factor contributes towards the success or failure.

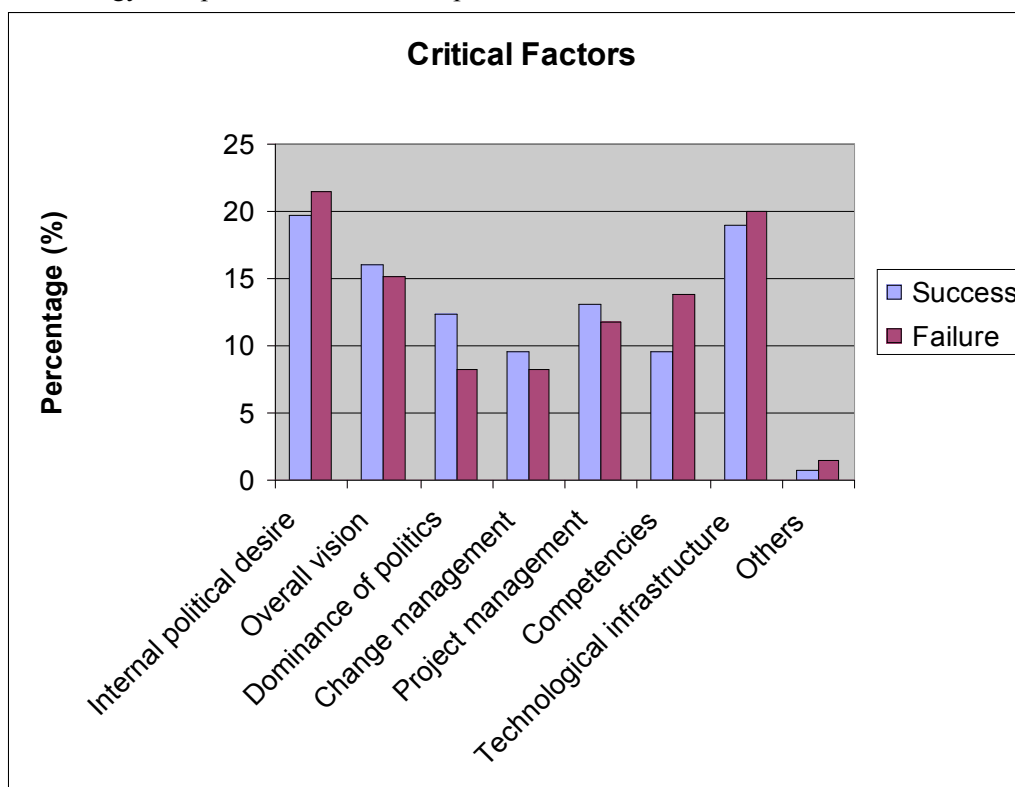


Figure 3: Critical Factors

8. Summery of key finding and their implication

The survey conducted in this research presented fact base scenario of e-government awareness situation among government officials in Bangladesh. The current research concludes with highlighting the following key findings and recommendations:

- More than two third of the government officials covered under current study have lacking clear idea about the e-government initiatives.
- Almost 95 percent of the government officials believe that e-government initiatives such as one example used in the current study would benefit to the citizens. Moreover, no one expressed negative attitude regarding the benefits of the e-government initiatives.
- Respondents with diminutive information about the project are also un-sure about the potential benefits of the project. This indicates that current awareness creation process (if any exists) has some flaws in creating clear impression. Whereas, a significant portion of the respondents who had no idea about e-government expressed very optimistic opinion after the briefing sessions conducted by investigators.
- From the study it has been clearly evident that government alone with private cooperation should play the role of driver to promote e-government initiatives in Bangladesh. International development organization can provide technical assistance in implementing e-government projects in Bangladesh but they have tiny role to play in the promotion of any e-government initiative within Bangladesh according to the respondents.
- A hypothesis can be developed that awareness creation will create positive stance towards e-government among government officials. More then 60 percent of respondents of those who strongly support e-government initiative were unaware about the e-Citizens Service Application project and express their strong support after concise briefing.
- The most important factors for successful implementation of e-government are internal political desire, technological infrastructure and overall vision/strategy as perceived by the government officials of Bangladesh.
- According to the research, the most critical factors contribute to the failure of e-government implementation are lack of internal political desire, inadequate technological infrastructure and lack of overall vision/strategy.
- In other words it can be said that internal political desire, adequate technological infrastructure and overall vision/strategy are the most critical factors for the implementation of e-government in Bangladesh.

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