Bureaucracy and E-government:
A study of e-procurement initiatives
in Bangladesh

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Abstract

As a developing country aspiring to improve its service delivery through improved governance process, Bangladesh has started using Information Communication technology ICT in its public sector organisations. Known as e-government, the ICT-based governance process offers governments both opportunities and challenges. The complexities of the public sector make the e-government diffusion process difficult which could potentially detract from the outcome. Despite remarkable progress achieved by the government of Bangladesh in recent years in introducing ICT throughout the country, the overall objective of establishing successful e-procurement and institutional transformation to accommodate such innovative and sustainable practices is yet to happen. It appears that while there are political commitments to implementing e-government in Bangladesh, the public sector organizations and their employees are not yet fully ready to embrace e-government as they lack relevant knowledge, capacity motivation and institutional settings. Based on a study of e-procurement initiatives across four government ministries, this paper presents a case study on the Bangladesh public sector e-procurement implementation process, which constitutes a significant part of the country's e-government agenda. It explores the role of bureaucracy in implementing e-procurement in Bangladesh. The paper reveals that the current e-government capacity building strategy, which is aimed to provide better understanding and skills for relevant employees linked to e-government project, is inadequate. However, little emphasis is given on how it re-engineers the process and its critical transformation to good governance. Overall, the paper offers a tentative framework to make the role of bureaucracy effective towards successful e-procurement.

Keywords: **E-government, e-procurement, Bureaucracy, Transformation**

Introduction

The use of information and communication technology (ICT) in public sector organizations has transformed the governance landscape in many developed and developing countries. As a developing country aspiring to improve its service delivery through improved governance process, Bangladesh has also started using ICT in its public sector organizations. Known as e-procurement, the ICT-based public procurement has both opportunities and challenges. Researchers identify leadership role and pro-activeness of bureaucracy as one of the critical success factors in adopting e-procurement.

Based on a study of e-procurement across four government ministries of the Government of Bangladesh, this paper aims to look at thecurrent situation of the public e-procurement implementation process in Bangladeshand critically analyse the role of bureaucratic leadership in making e-procurement adoption a reality.

Structure of the Paper

First, the paper looks at the public procurement and e-government status of Bangladesh and how bureaucracy is linked with the entire process to set up the background of the research. The following section reviews literature on e-government as well as e-procurement to provide wisdom on the topic. The subsequent section briefly analyses the featuresin the light of information gathered from both primary data and secondary data sources. Finally it would conclude the discussion in view of overall argument. The final section of the paper provides a model for the problem of e-procurement adoption for developing countries. This model focuses on several core areas like capacity building, institutionalization and as the underlying foundation of the problems including the infrastructure/e-readiness and political consideration. Furthermore, the model provides a framework that can lead to successful e-procurement in the comparatively traditional as well as rigid public sector.

Public Procurement : Bangladesh Context

Public procurement is more than just purchasing, rather it is a function through which governments acquire goods, works and services from market with a view to provide facilities and services to its citizens. Bangladesh, as a developing country, spent over US$3 billion in the fiscal year 2011-2012 on procurement with a steady increase over last five years (FDB, 2012). The estimated economic loss due to inefficiency and wastage in procurement costs over 1.5% of GDP per annum (The ADB, 2011; WB, 2013).The magnitude of such expenses indicates the importance of procurement as a key activity of the government. The basic

principle of public procurement is to obtain the right item with the right price within a time frame through the use of an open and transparent process (Neupane, Soar, Vaidya and Yong, 2012). However, it is not an easy task to maintain this principle, especially in a developing country context where the levels of efficiency and transparency are not adequate and may affect the entire process (Schooner, 2011; Wittig, 2003, OECD, 2011).

To understand public procurement in Bangladesh, it is important to understand its background .Bangladesh is a democratic republic with a unitary, parliamentary styled government which emerged as an independent country in 1971. Previously colonised by the British and subjugated by the Pakistani regime, the country has been bearing the legacy of unconstitutional and colonial rules and exploitative and corrupt practices in state activities (Jahan, 2006, Haque, 1995). Since independence all three organs of the state, executive, legislature and judiciary, have increasingly been attracting criticisms of high incidence of corruption, but there is little evidence of any significant actions taken by the government in addressing these issues (Mahmood, 2010). Consequently, addressing issues associated with ethics, integrity, accountability or conflict of interest has not been considered as a priority for any legislative, judicial and administrative reforms in the country (Bangladesh Observer, 2006; Jahan, 2006 and Haque, 1995). Following the trend and given the involvement of significant amounts of expenditure, public procurement becomes a fertile area for corrupt and inefficient practices (TIB, 2009).

Country Assessment Report on public procurement effectiveness jointly under taken by the World Bank and the Government of Bangladesh in 2007 identified the following problems that affect procurement performance :

a. Inefficiency in administering the process in terms of delay in its different stages together with the lack of professionalism in understanding market and goods, preparing tender documents, overlapping and hierarchal approval procedure etc.;

b. Noncompliance with Procurement Act and there under rules, lack of review and proper monitoring which is leading to lack of accountability

c. The lack of openness, accessibility and equal treatment to all suppliers/contractors resulting in the lack of transparency; and

d. Absence of proper mechanisms to ensure stakeholder participation, recording feedback, complaints, fraud and corruption as well as taking

actions addressing these issues leading to non-responsiveness of the system.

In addition, violence and mafia dominance in relation to tender processes are other experiences (TIB2009). It is evident that, mafias have strong links with political parties and they try to influence the tendering process in their favor. Political parties often support or provide shelter to them as parties rely on them at the time of election and other political activities. They consider the public procurement budget as an avenue for rewarding their activists. Besides, bribing officials and politicians to win government procurement bids is a common practice for individuals or firms (TIB, 2011). There is a lack of independent and proactive judiciary to review or check the corrupt procurement practices (TIB, 2009). Although an independent 'Anti-corruption Commission' was founded in 2004 to fight against corruption in the country, there is doubt whether the Commission is functioning effectively or not (Mahmood, 2010).

In the given context, there have been pressures on the government from development partners andcivil society groups in Bangladesh to combat corruption and to create a transparent, efficient and accountable public procurement system (WB, 2009; TIB 2009). Moreover, existing public procurement practices in Bangladesh are identified as inefficient affecting economic growth, poverty alleviation programs, overall development and governance (ADB, 2011; World Bank, 2009). It is argued that the introduction of e-procurement could improve the situation.

E-Government, E-Procurement and Bangladesh

The digital era of Bangladesh started in the late 1990s although the government formally affirmed ICT as the thrust sector in 2001 by declaring government's vision to establish a "Digital Bangladesh" by the year 2021. In recent times, Bangladesh has made significant progress in introducing ICT in the public sector with a revolution in the telecommunication sector (BTRC, 2013) even though, the latest UN - Government Readiness Survey 2010 has ranked Bangladesh 161st position among 190 countries. According to Bangladesh Telecommunication Regulatory Commission (BTRC), more than 75% of the total population have access to mobile phones. Bangladesh belongs to the top ten economies with the least costly mobile phone service prices (ITU, 2009) and Bangladesh was connected to submarine cable in 2006 while second connection is underway as a redundant and alternate path to the information super highway. Among noteworthy initiatives are the adoption of ICT Policy, Support to ICT Taskforce (SICT) and UNDP supported Access to Information (A2I) are important. The government

exempted all computers and peripherals from taxation to promote ICT (Bhuiyan, 2010).All of the government offices have their own websites and provide important information and e-services to citizens and businesses. A separate ministry titled 'Ministry of ICT' is established to lead the sector and to serve as policy nucleus for e-Government. The Ministry has been involved in providing physical and ICT infrastructure facilities for the software industry, delivering ICT training to government officials and citizens, facilitating overall ICT development both in public and private sector and assisting in the disbursement of equity funds to the ICT sector (BEI,2004; JOBS/IRIS, 2005).

The government has established the national web-portal (www.bangladesh.gov.bd). The passing of ICT Act, 2009, Right to Information Act, 2009 and National Identification Registration Law, 2010 are further steps by the government to advance ICT. These acts include regulation of electronic payment and digital signature as well as establishing Controller of Certifying Authorities (CCA) which paved the way for introducing online payment services, a pre-condition for transactional e-service implementation. In the financial sector, both public and private commercial banks are providing online services such as account operations and inquiries, fund transfers and payments, utility bill payments, deposits and loans including the issuance of plastic cards to their clients (Al-Amin, 2009). All these efforts and developments point out that Bangladesh is moving forward to e-government. In continuation of the above progress, a distinct pilot project titled 'Public Procurement Reform Project II' supported by the World Bank is under implantation since July 2007 to adopt full-fledged e-procurement system across sixteen Procuring Entities (PEs) under four sectoral agencies. The system will gradually and ultimately be expanded across all government agencies of the government (CPTU, 2013; WB, 2013). Four government ministries i.e. Ministry of Local Government and Rural Development, Ministry of Communication, Ministry of Power and Mineral Resources, Ministry of Water Resources and their attached departments i.e. Department of Local Government and Engineering, Department of Roads and High Ways , Water Development Board, Rural Electrification Board were implemented the pilot e-procurement project. These four ministries and agencies were chosen for piloting e-procurement because they are responsible for infrastructure development and maintenance of infrastructure, usually spend a big amount of the national procurement budget and are accused of not performing well in many cases. The pilot project was commenced as a part of comprehensive public procurement reform initiative. Originally the Project was supposed to be completed by

June 2012, but it is continuing with an extension till December 2016 with additional fund from the World Bank to run the project. The total cost of the pilot project is US$ 59.4 million (WB, 2013). The case study has scrutinized this pilot case.

Meanwhile, GoB had enacted the ground breaking Public Procurement Act in 2006 followed by Public Procurement Regulation 2008, which provides a framework for the government public procurement process (WB, 2009). Considering the opportunities of e-procurement and to address the above-mentioned weaknesses, the Government of Bangladesh (four ministries) started implementing full-fledged e-procurement process on a pilot basis since 2007 (CPTU, 2013). Despite taking these important steps, a shift froma paper-based, traditional, manual and centralised system to an electronic system with compliance of the public procurement act is not without challenges (Haque, 2010; WB, 2009) although the program receives strong political commitment from the highest level of present government. An OECD (2002) research project has shown that ICT investments caused a rise in GDP. In many developing countries e-government initiatives have flourished such as Brazil, India, Chile, Argentina, the Philippines, etc. (WB, 2012; UNDP, 2006). However, there are evidences of failure in many other initiatives. It also revealed that nearly 32 countries were the world's least developed countries featured by stagnant and insufficient information with few interactive features and non-available online services. Heeks (2003) has found that more than one-third of the e-government initiatives are total failures while roughly one seventh are successful.

The constraints identified for other countries e-government and e-procurement might be in common with Bangladesh.

Bureaucracy, e-government and e-procurement

Bureaucracy is the key mechanism that mediates the relationship between citizen and government through a complex set of institutional and cultural settings, generally named as public administration (Basu 2004). As state machinery, bureaucracy has a vital role in under taking any reform across public sector organizations. Figure 1 illustrates the central and multi-dimensional role of the bureaucracy in the e-government system.

Figure 1: Multi-dimensional relationships in e-government
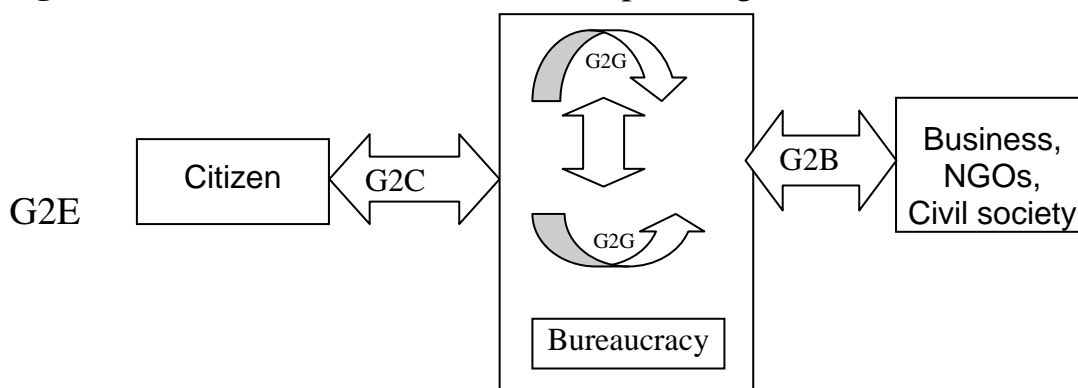
Source: Adapted from Jeong&Nawi (2007)

For that reason, evaluating the role of bureaucracy in implementing e-procurement in Bangladesh is a complex task. Therefore, it is important to understand bureaucratic characteristics of Bangladesh and how the bureaucracy responses to any change or reform. The bureaucratic structure of Government of Bangladesh (GoB) is centralised, formalised, large in size and poorly paid (PARC, 2000). Some argue that it is ill-disciplined, inadequately trained and reform-resistant (Khan, 1998).It is also argued that 'bureaucratic traditions in Bangladesh can be characterised as 'postcolonial', combining multiple features directly traceable to colonial institutions and ancient rural community with post-independence adaptations and innovations based on the donor-driven administrative reforms, appearing as new 'layers' on the original bedrock' (Masud,2014 p.1). These reforms have been introduced to enhance the accountability of the bureaucracy. In addition, military intervention and politicisation of the bureaucracy has resulted in a dominating bureaucratic structure with corruption (Mollah, 2011). The politicisation of the bureaucracy and its consequence on administrative performance is identified as one of the persistent challenge in governance (Zafarullah and Khan, 2001). There is a growing tendency to develop a mutual relationship between the politicians and bureaucrats by shifting bureaucrats' position from dominating to alliance (Huque and Rahman, 2003). Promotion, transfer and other opportunities for civil servants are determined by political considerations not from a professional perspective that is affecting the career prospects of civil servants or the services to citizens. (Khan, 2003). Given the context, adoption of innovation like e-procurement and its internalisation is a challenging task. As the key institution for policy implementation, the role of the bureaucracy in coping with the changing economic and political order both at global and local level, it is required to redefine its role and put correct efforts in place.

**Key theories linked to this e-procurement/e-government research**

The review of the procurement literature identifies several models/ theories developed over the last two decades which capture the debates and dynamics of e-government with some focus on e-procurement. Most

of the studies contributing to theoretical models have been done on e-government and e-procurement involving developed country perspectives with only a few focusing on the developing country context. Some of the theories have pointed out the level of governments' political and bureaucratic leadership and managerial commitment as key success factors critical in achieving e-procurement objectives. This particular research is looking at the role of bureaucracy in e-procurement adoption. As-Saber, Hossain &Srivastava (2007), As-Saber and Rahim, (2011), Imran (2010) and Bhatnagar (2002) refer to training for the government employees as crucial for successful assimilation of e-government in other words e-procurement. The Bhatnagar model explains that the benefits of e-government and the key steps of reengineering processes need to be demonstrated to civil servants through short pilot projects/trials. Such pilots would help to understand the innovation and its associated emerging issues and would develop a sense of ownership to take it forward. The modelalso identifies bureaucratic ownership and strong project management skills as key elements for successful and sustainable e-government or e-procurement implementation. The theory of As-Saber and Rahim (2011) argues that a thorough homework needs to done with a view to create a uniform understanding on the benefits of e-procurement across the organizations to minimise challenges such as lack of organisational commitment and resistance to change. In addition, an appropriate budget structure, a customised technical solution, incentives, proper training and genuine bureaucratic commitments to implement e-procurement are essential. Change management approach (Phillips 1983, Kotter 2011) identifies factors such as recognizing the changes in the broader business environment, developing the necessary adjustments for organisation's needs, training their employees on the appropriate changes and winning the support of the employees with the persuasiveness of the appropriate adjustments for the successful diffusion of innovation. Similarly, Jane Fountain offers a framework or 'technology enact-ment' in her book titled *Building the Virtual State* that integrates an understanding of bureaucratic politics, network formation, and organisational structure. She points at the complexity of the intellectual, cultural, and institutional settings and their relation-ship with the design, perceptions and uses of information technology. Fountain argues that institutional and/or operational changes within bureaucracy are important for the integration of the innovation (Fountain, 2001, pp. 99-100).

Theories discussed above are used as guiding principles of this research. Based on the above discussion including the theoretical underpinnings, a conceptual framework is outlined (Figure 2). The framework captures the critical areas which are crucial in making the role of bureaucracy effective towards successful e-procurement adoption in Bangladesh.

Figure 2: Framework for the effective role of bureaucracy
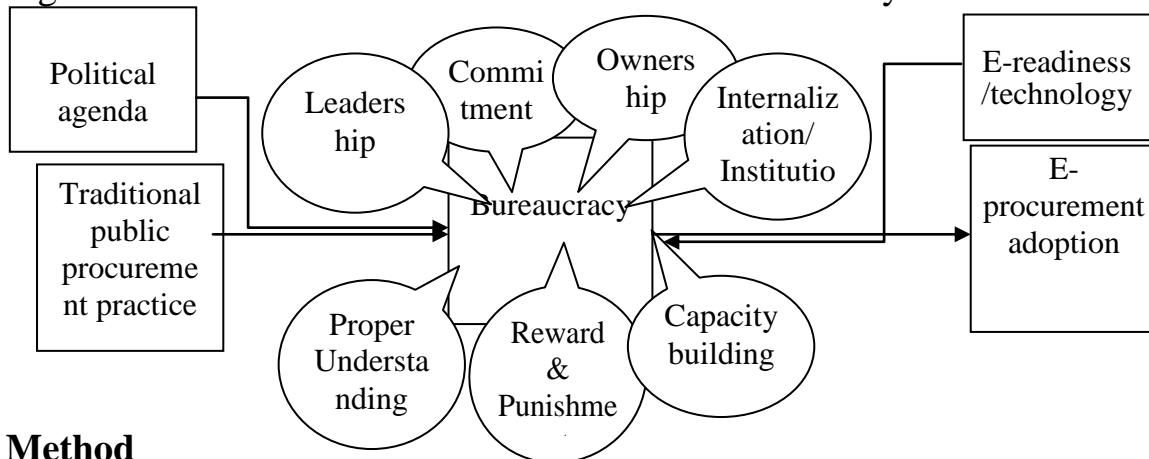
Method

The Authors are involved in a PhD research project at RMIT University titled 'E-procurement as an Instrument in improving Public Procurement Process: A Bangladesh Perspective' which is scrutinizing the extent of benefits/improvement likely to derive from e-procurement in the governance of the public procurement process in Bangladesh; the challenges of implementing public e-procurement in Bangladesh; and the possible ways to overcome these challenges. Data source and analysis of this paper relies on that project. The proposed research is a empirical and exploratory research used a qualitative research method involving a case study research design by using qualitative data collection techniques such as interview, observation, content analysis etc. Four government ministries and their attached departments were chosen as the unit of analysis for the study since these ministries are a part of a pilot project supported by the World Bank to introduce e-procurement in Bangladesh. Key officials of these agencies were interviewed. In addition, the Comptroller and Auditor General and Central Procurement Technical Unit (CPTU) are included in the study. Members of Parliament, representatives of key stakeholder groups are also incorporated in the study that includes the World Bank, business community (contractors & suppliers), Transparency International, procurement experts and Anti-Corruption Commission.

Findings and Analysis

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Table1 shows different phases of five e-government models that present a possible evolutionary pattern of e-government. The models are fairly similar. According to the models, the level of cost, complexity, efficiency and maturity are incremental. At the same time risks and complexity are higher at upper stages which are expensive to implement (As-Saber, Srivastava and Hossain, 2006). E-procurement, an important component of e-government involves transaction and situates at the higher level of e-government thus associate with higher challenges during the implementation process.

Table 1: Categorisation of e-government stages

	Step 1	Step 2	Step 3	Step 4	Step 5	Step 6
Layne and Lee(2001)		Catalogue	Transaction	Vertical integration	Horizontal integration	
Baum and Di Maio(2000)		Presence	Interaction	Transaction	Transformation	
Ronagham (2001) (UNPA&ASPA, 2001)	Emerging presence	Enhanced presence	Interactive	Transactional	Seamless	
Hiller and Belanger (2001)		Information Dissemination	Two-way communication	Integration	Transaction	Participation
Wescott (2001)	E-mail And internal work	Enable Inter-organisational and public access to information	Two-way communication	Exchange of value	Digital democracy	Joined-up government

Source: Coursey and Norris (2008), p: 524

An e-government case study of Bangladesh done in 2010 (Bhuiyan, 2010) shows that full electronic transaction is not available in Bangladesh. Therefore a strong thrust is required to shift the current position forward. As a major state organ, bureaucracy has a vital and thoughtful role to play as identified in the literature review as well as the conceptual framework.

Leadership role

From findings both interview and documents, it is perceived that there is an enormous potential and scope of e-procurement in streamlining the procurement process in Bangladesh. It appears that while e-government adoption is high on the agenda of the Government of Bangladesh, the e-procurement pilot project and its implementation did not get the same priority in line with that to achieve its optimum outcome.The role of the World Bank as major financerof the project is found significant and stronger compared to the Government of Bangladesh in terms of day to

day progress monitoring and keeping track with the project activities regularly. Ministry of ICT, as the lead ministry is not formally linked and informed about the e-procurement project updates. Although the other four line ministries have direct links and obligations to steer and monitor e-procurement, those ministries are also not well informed or updated about the project status. CPTU is the key agency which is responsible for the whole procurement reform agenda is playing key role on behalf of the GoB. Since CPTU is not the parentorganisation of the procuring agencies that weakens the whole approach. It can be argued that lack of monitoring and involvement of the top level management has weakened the implementation dynamism.This point indicates that an enargetic leadershipto steer the e-procurement adoption process seems to be missing to some extent.

Commitment and Ownership

Litarature shows that bureaucratic commitment is crucial in the adoption of e-procurement. It is seen thatonly concered officials or those emplyees who are directly involved with e-procurement pilot project, at best 2 or 3 persons in the entire office, know about e-procurement and are able to operate the process. There was a target of accomplishing 100 e-tenders for each of the agencies under the pilot project. They did the task for the sake of full filling that target. The level of commitment of top level management and the employees are not high as demonstrated in papers and policies. Although almost all government agencies have technical staffs with ICT knowledge, their work is not visible or noteworthy in making the office technology friendly. There is no mechanism to supervise or assess websites or online services yet or attempt to update existing websites with up-to-date information regularly. Communications with and with in different public offices still depend on telephone; fax and traditional paper based writing communication. Lack of strong demonstration of bureaucratic willingness to adopt e-procurement is evident. The overall attitude of the officials is not very congenial to make e-procurement a reality.

Understanding and Capacity

Bangladesh, like many other developing countries, has been struggling to sort out an effective strategy to embrace full-fledged and successful e-government across public sector organisations. Imran (2010) claims that lack of knowledge and deep-rooted attitudes and mindsets are the key underlying contributors to the lack of progress. After doing the relevant document analysis, it can be argued that there is no such comprehensive e-government capacity building strategy which can provide proper understanding. Some emphasis is given on very short term ICT training

which can be considered as a technical tool in implementing the e-procurement techniques and processes, or to run e-systems. However, the philosophical stance of e-government ore-procurement as well as their relevance to the national development, people's needs and societal aspirations has not been systematically addressed. Also how it re-engineers the process and its critical transformation to good governance is not covered in the training modules. Most of the respondents from both e-procurement implementing agencies and contractors mentioned that they have been facing difficulty to handle e-procurement system daily basis that indicates the need of appropriate training. According to the majority of the respondents, the possible measures to mitigate these challenges could be like comprehensive training for both government officials at different levels and for other stakeholders /contractors to roll it out and to make the effort effective as well as sustainable.

Incentives for e-procurement

As Saber and Rahim (2011) argue that the use of appropriate performance management tools such as incentive or pressure might have positive impact in implementing e-procurement. There was no such attempt in case of Bangladesh e-procurement pilot project initially. But at the final stage of the e-procurement pilot project the World Bank offered incentives for the officials involved in the process. If any agency can fulfil their target of 100 e-tenders and do more than that they will receive extra funds to buy computers and other logistics also might get a chance to avail higher level abroad training. This offer had a positive impact on some of the young officers' performances.

Institutionalisation

According to Fountain (2001) the real challenges of the diffusion of ICT based system lie not in attaining the technical ability, rather in triumph over the deep-rooted organizational and political divisions within the state. She termed this challenge as 'political and structural battles' which influence how the system will be remade in the digital era, also who will be the winners and losers in an ICT based society. Fountain also argues that institutional actors often endeavour to use the new technology to strengthen existing institutional realities. ICT is not always, in fact, revolutionary in most large institutions like governments since those are strongly directed by cognitive and formal arrangements. So, it is important to implant the e-system in the institutional structure. In case of e-procurement in Bangladesh, the endeavour is an additional or ad-hoc arrangement.

Discussion

This study indicates where effort should be placed to redress the underlying problems that situates at the core of adopting ICT.

The Bangladesh bureaucracy has largely been criticized for not being proactive rather being non-responsive to any reform in the public sector (Zafrullah, 2006).Adding to this common problem, several factors those contribute in making a poor show of bureaucracy should be recognised. Firstly e-procurement is an emerging phenomenon; it is not well understood by the bureaucracy and other stakeholders. The project failed to make public organization officials understand opportunities of e-procurement and its strategic link with country's development rather the project objectives are narrowly focused. The current capacity building initiatives linked to e-government and e-procurement are inadequate that is not helping the situation to improve. That might have a chain effect on the commitment level of the bureaucrats.

Secondly, since e-procurement is situated at a higher stage of e-government, which is by and large pointing to the e-readiness issue, not an issue that links to bureaucracy only rather links to the whole system. Thirdly, e-procurement is such an innovation which does not have direct or visible benefit of mass people. Besides, it is not considered to be a service to citizens also not much popular as an election agenda in a democratic system. Therefore, the e-procurement agenda could not attract proper attention from political and bureaucratic end it has a great implication in implementing annual development plan of the government as well as national development as a whole. It can be argued that e-procurement agenda is undermined to some extent. This might have a role in not developing a commitment or sense of ownership among bureaucrats to take it forward.

Lastly, this research has found that e-procurement implementation was not linked with organisations' mainstream function or employees' charter of duties or with their career. So, employees do not feel pressure or obligated to learn and practice e-procurement. This has slowed the e-procurement adoption. The phenomenon can be termed as issue of internalization or institutionalization. On the basis of the discussion, this paper supports suggests a model (figure 2) that would help to make the role of bureaucracy more effective in adopting e-procurement. Although the model is developed on the basis of Bangladesh experience but applicable to developing countries like Bangladesh.

Conclusion

To summarise, the paper suggests a conceptual model for addressing the problem of bureaucracy in e-procurement adoption for developing countries. This model focuses on several core areas like capacity building, institutionalization and as the underlying foundation of the

problems including the infrastructure/ e-readiness and political consideration. Furthermore, the model is a comprehensive approach may lead e-procurement towards a successful adoption in the comparatively traditional as well as rigid public sector.

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