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**BARRIERS & ENABLERS OF E-GOVERNMENT PROCUREMENT (E-GP)**

**An Analysis of Public Works Department (PWD)**

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For Partial fulfillment of  
**Masters in Procurement and Supply Management (MPSM)**  
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# Certificate

This is my pleasure to certify that the dissertation entitled “**BARRIERS & ENABLERS OF E-GOVERNMENT PROCUREMENT (E-GP): An Analysis of Public Works Department (PWD)**” is the original work of Jubair Bin Haider that is completed under my direct guidance and supervision. So far I know, the dissertation is an individual achievement of the candidate’s own efforts, and it is not a conjoint work.

I also certify that I have gone through the draft and final version of the dissertation and found it satisfactory for submission to the BRAC Institute of Governance and Development (BIGD), BRAC University in partial fulfilment of the requirements for the degree of Masters in Procurement and Supply Management.

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# Declaration

I hereby declare that the dissertation entitled “**BARRIERS & ENABLERS OF E-GOVERNMENT PROCUREMENT (E-GP): An Analysis of Public Works Department (PWD)**” submitted to the BRAC Institute of Governance and Development (BIGD), BRAC University for the degree of **Masters in Procurement and Supply Management** is exclusively my own and original work. No part of it in any form, has been submitted to any other University or Institute for any degree, diploma or for other similar purposes.

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# Abstract

The planning ministry is taking a timely initiative for all government purchases to be done under the electronic government procurement (EGP) process. Tenders on paper have not only given ample scope to corruption and irregularities, but has caused serious clashes too. Bidders are harassed while submitting the tender documents. Some can't even submit their documents due to threats from criminal quarters. Vested quarters backing these criminals are in control of the procurement process. The taxpayers and the service seekers are the ones who suffer the most.

In order to resolve these problems, in 2011 the government introduced the EGP system for procurement in the local government engineering department, Roads and highways department, Water Development board and the Rural Electricity board. The e-GP is a single web portal from where and through which public procurement agencies and entities will be able to conduct their procurement related activities with transparency and accountability. For their part, the bidders and tender applicants will not only save time but also have a level playing field.

Electronic government procurement (e-GP) is a modern and integrated online system for procurement of goods, works and services with public funds. The government deserves appreciation for digitizing public procurement that involves about TK 780 billion development budget every year.

This research looks into e-GP system through the lens of Public Works Department (PWD). There are many facts which are either hindering or helping the e-GP process in PWD. Respondents were asked about their experience so far and several interesting factors came through interviewing them. Respondents described what they think has helped them to forward through the e-GP process till such, namely Lesson learnt from other department, Bitter experience of the manual system and Support from the strategic level of the Government. Various Blockers to impletion for e-GP was identified such as Lack of training and Understanding about the system, inadequate capability of CPTU server, Untrained Contractors and incapability of e-GP system to encompass all stakeholder in the Purchase to Pay (P2P) cycle.

Respondent then recommended various steps that they think should be implemented for the future performance of e-GP. Innovative and Interactive training of the stakeholders were recommended by most of them. This training can be both offline and online type. Some even suggest that current interface of website can be made more user friendly, so that beginner can feel easy to use.

If all the recommendations are implemented, that day is not far when e-GP system will achieve 100 % coverage in all the government purchase.

# Abbreviations

ICT	Information and Communication Technology
PWD	Public Works Department
IMED	Implementation, Monitoring and Evaluation Division
CPTU	Central Procurement Technical Unit
FAQ	Frequently asked questions
HOPE	Head of Procuring Entity
PE	Procuring Entity
XEN	Executive Engineer
AE	Assistant Engineer
RTI	Right to Information Act
KPI	Key Performance Indicator

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# 1.0 INTRODUCTION

## 1.1 Prelude

Public procurement has been a neglected area of academic education and research, even though public procurement is alleged as a major function of government and even though governmental entities, policy makers and public procurement professionals have paid a great deal of attention to procurement improvements or reforms. (Thai, 2010)

Public procurement has a long history. It was written on a red clay tablet, which found in Syria, the earliest procurement order dates from between 2400 and 2800 B.C. The order was for “50 jars of fragrant smooth oil for 600 small weight in grain” (Coe, 1989). Other evidence of historical procurement, comprises the development of the silk trade between China and a Greek colony in 800 B.C. (Thai, 2010)

There is now very limited doubt among policy makers, managers, professionals and academics about the importance of public procurement in facilitating government operations in both developed and developing countries. Public procurement is increasingly recognized as a profession that plays a significant role in the successful management of public resources and a number of countries have become more aware of the importance of procurement as an area vulnerable to mismanagement and corruption and have thus instituted efforts to integrate procurement in a more strategic view of government efforts. As part of the efforts to adopt a long term and strategic view of their procurement needs and management, most countries have resorted to turning to their annual procurement plans as a possible 'problem-solver.' Corruption is disastrous to the sound functioning of any government department. Corruption has been an intractable problem in many developing countries; especially where it has become systematic to the point, where many in government have a stake. It diverts decision-making and the provision of services from those, who need them to those, who can afford them.

Public procurement frameworks in developed and developing countries alike are recognized as being characterized by an unstable tension between the public expectations of transparency and accountability and of efficiency and effectiveness of resource management. This conformance - performance tension, manifest throughout a complex procurement environment, is further damaged by conflicting stakeholder interests at the political, business, community and management levels and

exacerbated by competing claims between executives, lawyers, technologists and politicians for lead roles in this arena. (Schapper, 2006)

An efficient public procurement system is an important necessary condition for ensuring efficient public investment and therefore, economic growth. However, different sorts of economic and political misgovernance often make such public institutions weak, resulting into poor performance of public projects. The solution to this may lie into simple solutions like adopting an electronic procurement system. Whether such electronic system has any impact on efficiency of the public procurement process remains to be an open, empirical question.

The traditional public procurement system has a few problems, especially in a developing country context. Typically, the system is plagued with various types of collusive activities and corruption. For example, bidders often collude with each other and manage to keep winning contract price high. Formal enough procurement projects or in emergency situations, procuring entities may procure goods directly from a vendor without advertisement, leaving ways to collude and over-invoice procured items hence illegal activities results into higher prices of a procured good or work. In addition, an inefficient bidder may win the contract resulting into poorer quality output, delays in project completion and cost overrun.

In Bangladesh, political pressure at local level is another factor that influences the procurement processes. Influence often takes the form of blocking non-political contractors to participate physically in the bidding process. Since the local law and order administration are captured as well, many bidders therefore either fail to participate or shy away from placing bids.

This paves the way for the politically connected bidders to collude with each other. With lower participation and competition from nonpolitical bidders and higher opportunity to collude at procurement process, it is expected that the procurement price is high. Had there been no such influences, the price should have been lower.

A more transparent and IT based electronic procurement system may play an important role in curbing this sort of political influences and also increase competition. First, an electronic procurement system allows more bidders to participate in the bidding process. Since cost of participation is minimal, bidders from outside the procuring district can also apply and win, resulting into greater competition and lower price. Second, it may reduce the political influence of the type mentioned above by letting a

bidder place a bid online from office or a remote location instead of going physically to the procuring entity's office. This will also raise competition and reduce price. (Abdallah, 2015)

## 1.2 Bangladesh Before e-Procurement

Since 2009, the Awami league has been in power. The judiciary is independent of the executive branch of government (In public procurement regime, the constitution has no direct provision bearing on public procurement. Neither is there is any procurement law or decree. The public procurement procedures and practices have evolved over the years from the days of British and subsequently Pakistani rule. A Compilation of General Financial Rules (CGFR) originally issued under British rule was slightly revised in 1951 under Pakistani rule and was reissued in 1994 and again in June 1999 with very few changes. The CGFR, inter alia, outlines broad, general principles for government contracts to follow, leaving it to the departments to frame detailed rules and procedures for their respective procurements. It also refers to the Manual of Office Procedure (Purchase) compiled by the Department of Supply and Inspection as the guide for the purchase of goods and the Public Works Department (PWD) code as the guide for works. Both date back to the 1930s and have not undergone any revision worthy of mention. The CGFR also refers to the Economic Relations Division (ERD) Guidelines issued in 1992, modeled on World Bank Procurement Guidelines at the time, for procurement in externally funded projects, with the proviso that the loan conditions would prevail in case of conflict. Since independence in 1971, the public procurement practices have been influenced by the World Bank, the Asian Development Bank, and other donors since the bulk of public procurement is externally funded. Some departments, autonomous boards, and public undertakings have drafted their own set of procedures or a manual, and the rest follow the PWD code. (Bank, 2002)

Since the adoption of privatization as an economic policy reform in 1976, public procurement by contractual means in Bangladesh has been increasing day by day. Public procurement in Bangladesh embraces government's activities of purchasing, hiring or obtaining of goods, works or services by any contractual means. Various government agencies or procurement entities, especially the ministries, divisions, departments/directorates and other autonomous/semi-autonomous bodies or corporations in Bangladesh often acquire/purchase goods, services or works by contractual means. Although restricted tendering method or direct procurement method can be used for some specific reasons, procurement and contracts in Bangladesh often take place through open competitive biddings.

Corruption and poor governance are impeding Bangladesh's efforts to reduce its massive poverty by reducing economic growth and lowering the achievement of social objectives. They destroy citizens' faith in their government. They deter the foreign and domestic investment; which Bangladesh needs so badly.

And they undermine the ability of Bangladesh's development partners to sustain their support for the country. Economic growth is essential to reduce poverty, however, corruption slows economic growth. (Bangladesh, 2009))

An amendment to a law is designed to remove the lacunas of existing law and find the way to implement the provision more effectively. But unfortunately the recent amendment introduced to the Public Procurement Rule (PPR) would perhaps put a damper on a vital front of governance. Corruption, terrorism and mismanagement in the public purchase are the common scenario for the last decades. Mishandling of public procurement in absence of a uniform law contributed largely to the situation. Reforms in the public sector finance were initiated during the previous regime of AL government. Later on the law was passed in 2006. But Public Procurement Act (PPA) and PPR were made effective during the caretaker government in 2008. It has been modernized and brought to international standard through the enactment of successive law and rules. (Star, 2010)

In the PPR 2008, there were mandatory provision of work experience and financial qualification of the bidders for submitting bids against any tender called by the government agencies to procure goods and works. At least five years of experience was required for the contractor to submit bid to get a work or supply of goods for up to tk20 million from any project implementing agencies. (Star, 2010)

### 1.3 What is E-Procurement

The beginnings of eProcurement were in the early 1980s with the development of electronic data interchange (EDI). This allowed customers and suppliers, most often in the fast moving consumer goods business (FMCG), to send and receive orders and invoices via secure store and call forward networks. These EDI systems allowed businesses to exchange and synchronize master data files on products, prices, specifications and information about each other's locations and trading practices.

In the 1990's internet software started to become available, and software companies began to develop buyer managed electronic catalogues for use by vendors. Sometimes these proved to be too unwieldy due to failures in communication between customers and suppliers (salesman and buyers), and software companies started to customize, maintain and host some catalogues, effectively becoming "the intermediaries between the buyer hub and the vendor spokes" and vice-versa. As the catalogues became outsourced, software companies started to offer the same catalogues to a number of buyers

Another development in eProcurement that arose at a similar time was the proliferation of e-marketplaces which covered some of the electronic trading needs of certain industries, such as automotive and aircraft. These act as a virtual market place for suppliers, distributors, agents and customers. ((CIPS), 2013)

There are also issues to overcome when implementing eProcurement including:

- Ensuring that, by deploying eProcurement, organizations are not simply passing costs or process inefficiencies on to another part of the organization or on to suppliers
- Competition issues (eg. in exchanges using collaborative purchasing)
- Possible negative perception from suppliers, for example, due to their margins being reduced by e-auctions
- Website and information control lost to exchange administrators
- Negotiated procurement benefits may be shared with other exchange users who may be competitors
- Creation of catalogues can be a long process and costly to suppliers
- Data and catalogue management has to be done well and can be costly, as can product coding and classification
- The cost of changing suppliers once they have invested in catalogue production may inhibit competition and lead to inertia
- Culture profile within organizations (eg. resistance to change)
- security of data in eProcurement systems is critical. The system must contain robust mechanisms for identifying and authenticating the user so that the supplier knows that he can fulfil any orders placed. Both parties must have complete confidence in the security infrastructure of any system.

The resulting benefits to Buyers will be:

- Reduced transaction costs and cycle times
- Possibility of developing Vendor Managed Inventory
- Improvements in Just in Time deliveries
- More accurate deliveries due to reduced input order errors by suppliers
- Shared performance measurement data which encourages improved supplier performance

- Potential for less expediting by the buyer as the supplier acknowledges orders by exception which automatically updates the buyer's system
- Reduced stock due to shared sales/forecast information
- Possibility of using self-billing

The resulting benefits to CONTRACTORS will be:

- Time and cost savings in re-inputting orders
- Reduction in errors, eg. from re-inputting orders, deliveries, returns, invoices and payments
- Reduced transaction costs and cycle times
- Holding less stock as a result of more efficient communications with customers ie. real time sales data
- Information for use in planning and forecasting
- Improved supplier performance by sharing supplier measurement information
- Faster payment
- Improved management information ((CIPS), 2013)

Government procurement represents 18.42% of the world GDP. Many countries have created specialized agencies in order to develop and manage business-to-government (B2G) electronic procurement (e-procurement) systems. (Singer, 2009)

E-procurement systems can be used helping purchasing goods and services most reasonably. (lee, 2010)

E-procurement is the online purchasing of goods and services through electronic channels. (Upasana Paridha, 2005). More, specifically, it is the use of electronic means for publishing, processing, exchanging, and storing all of the information related to institutional purchases in public organization. (Assar, 2008). Public e-procurement is an important stage in e-government development and its economic stakes are considerable. Thus public procurement systems must consult dualistic systems for two customers - government and companies. (lee, 2010)

The World Bank Group (WB) is transforming its former, highly manual process of selecting consulting services into a robust e-Procurement solution as part of its procurement simplification and modernization agenda. The World Bank engages consultants and service providers for technical or managerial advisory services in all sectors from socioeconomic and environmental projects to reforms of state and financial sectors, privatization, information technology and infrastructure. To that end, the

World Bank needs to manage the selection of providers and the resulting contracts with thousands of businesses throughout the world. To ease this process and improve efficiency, the World Bank has implemented a new electronic procurement solution for the selection of consultants, with the goals of fostering consistency of practice worldwide, increasing transparency and competition, and minimizing processing time and effort. (Leipold, 2004)

## 1.4 Electronic Government Procurement

e-Government procurement (e-GP) as the collaborative use of Information and communications Technology (especially the Internet) by government agencies and other actors of procurement community in conducting all activities of Government Procurement Process Cycle (GPPC) for the acquisition of goods, works, and consultancy services with enhanced efficiency in procurement management.

e-GP System is a web based system which encompasses the total procurement lifecycle and records the all procurement activities. The purpose of this system is to maintain complete and up-to-date Public Procurement System activities of all public agencies as well as provide tender opportunities to all potential tenderers from Bangladesh and abroad.

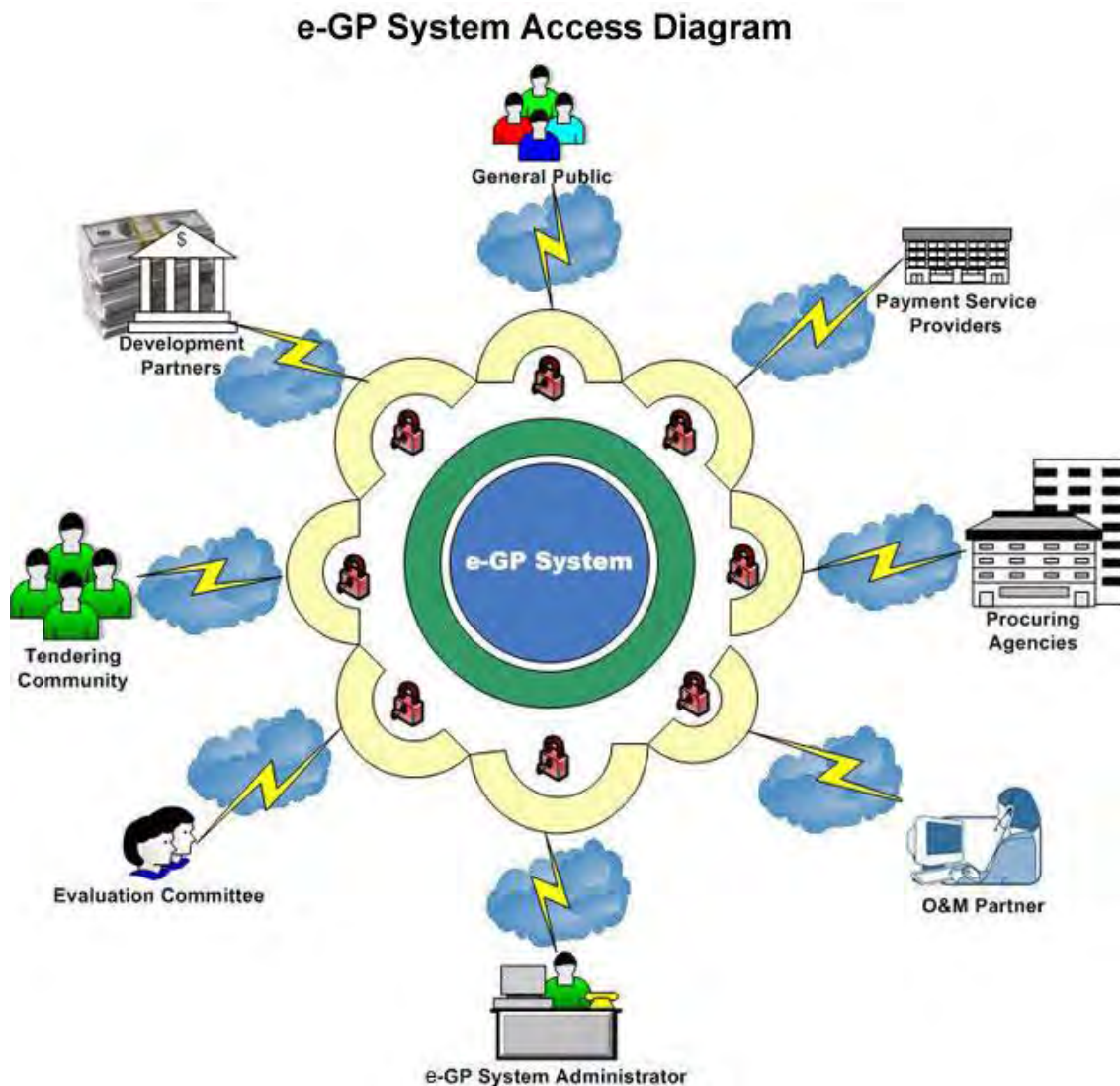
The vision of the e-GP is to enhance the efficiency and transparency in public procurement through the implementation of a comprehensive e-GP solution to be used by all government organizations in the country. Initially, on pilot basis, this will apply to a few Procuring Entities (PEs) of four target agencies namely Bangladesh Water Development Board (BWDB), Rural Electrification Board (REB), Roads and Highways Department (RHD) and Local Government Engineering Department (LGED), in Bangladesh. The System, later on, will be rolled-out across all the procuring entities in a phased manner.

The entire public procurement activity undertaken by the government shall be channeled through the e-GP infrastructure and implemented in a phased manner. Efficiency in handling public procurement by the government organizations shall be enhanced through automation and process reengineering. The system shall enable the government to maintain a clear picture of its procurement activities on a real-time basis. By engaging in e-GP, the government catalyzes the supplier community to participate in e-business.

Central Procurement Technical Unit (CPTU), IMED, Ministry of Planning is developing the e-GP System using the cutting edge technology and global expertise complying with the Public Procurement Act 2006 and Public Procurement Rules 2008. Bangladesh e-Government Procurement (e-GP) system consists of a comprehensive set of interlinked modules. These modules are:

### 1. Centralized Registration System

- (Contractors/Applicants/Consultants, Procuring Entities and other actors of e-GP)
- Centralized Tenderer /Consultant registration
- Procuring Entity (PE) registration
- Media Registration
- Payment service provider's registration
- Development partner's registration



Source: <http://www.eprocure.gov.bd/aboutUs.jsp>



## **2. e-Tendering (e-Publishing/e-Advertisement, e-Lodgment, e-Evaluation, e-Contract award) System**

- Annual Procurement Planning (APP) preparation and publishing
- Standard Tender Document (STD) Library
- Preparation and publishing Invitation to Tender
- Preparation and publishing Tender Document
- Online Pre-Tender Meeting
- Publishing Tender Corrigendum / Addendum / Amendment
- Online Tender / Application / Proposal preparation by Tenderers / Applicants / Consultants
- Online Tender Submission / Tender Substitution / Tender Withdrawal
- Online Tender Opening
- Online Tender Evaluation by Technical Committees
- Post Qualification
- Online Negotiations
- Issuance of Notice of Award (NOA)/ LOI
- Online Contracts

## **3. Procurement Management Information System (PROMIS)**

- Compliance monitoring through key procurement performance indicators
- MIS reports

## **4. Workflow management System**

## **5. e-Contract Management System (e-CMS)**

- Work Plan Submission
- Progress Report generation, submission / acceptance
- Defining Payment Milestones
- Running Bill Payment Processing
- Variation Order / Repeat Order
- Quality certification
- Work Completion Certificate
- Final Payment
- Supplier Rating
- Complaint and resolution database

## **6. e-Payment System**

- Registration Fee, Tender document purchase fee, and other services fee Collection
- Receive Tender Security and performance security submission
- Transactions for security release and forfeiture handling

## **7. System and Security Administration**

- E-Signature (Generation of Hash/Signature)
- PKI based digital signature
- Bid Encryption/ Bid Decryption
- 128 Bit SSL

## **8. Handling Errors and Exceptions**

## **9. Application Usability & Help**

- Integrated Inbox / Message Box
- Integrated e-Mail / SMS Gateway
- Dashboards for Procurement Performance Monitoring
- Manuals for all users
- Help desk support (Anon., 2011 )

## 2.0 LITERATURE REVIEW

There are a few other papers that work on the efficiency of public procurement and corruption. Di Tella, (2003) show that a crackdown on corruption in hospitals of Buenos Aires has significantly reduced the price of procured items, even though this effect were not sustainable. Tran (2008) uses internal bribery records of an Asian firm to show that certain policies (best value VS best price) are more effective in combating corruption in procurement indicates presence of secret auctions employed by officials to find largest bribe-payers. Bandiera, 2009 show that their systematic differences in procurement prices across public agencies that can be attributed to differences in governance structure and these differences is particularly due to passive wastes rather than active wastes. D'Souza and Kaufmann (2013) showed that national governance factors are associated with bribery in procurements with foreign firms are less likely to bribe. Coviello and Mariniello (2014) use publicity requirements of public procurement beyond a threshold to a regression discontinuity design and show that this requirement increases greater participation and winning rebates reducing the cost of procurement. We also contribute to the empirical literature of effect of political connections.

This research also contributes to empirical literature on effects of political connection. Khwaja and Miah (2005) analyze 90,000 loan data to report that politically connected firms borrow more and default more whereas such political rents are sensitive to the strength of the politician in the party and also whether the politician is from ruling party. Faccio (2006) finds that politically connected firms exist in most countries and are more prevalent in countries that are perceived to be highly corrupt, where citizens restrict foreign investments and where system is more transparent. Li, Meng, Wang and Zhou (2008) show that party membership of the Communist Party in China has a positive effect on firm performance and helps private entrepreneurs to get loans from banks and other institutions. Imai (2009) examines prefecture level panel data to show that size of government loans depends on electoral vulnerability of politicians of ruling party and their seniority in the party. Sukhtankar (2012) finds that embezzlements are higher in politically controlled firms in election years. Markussen and Tarp (2014) find that households with a relative in a position of political or bureaucratic power increase their investments in land improvements. (Abdallah, 2015)

In Bangladesh contract awards provide opportunities for procurement. There are reports of extensive corruption, political influence and pressure from trade unions in the procurement process. Public trust in the process is generally lacking. Donors are particularly sensitive about corruption in foreign funded contracts.

The World Bank's (2002) assessment of Bangladesh concluded that the implementation of procurement process is far from satisfactory, due to the following problems:

- i.) Poor advertisement.
- ii.) A short bidding period.
- iii.) Poor specifications.
- iv.) Nondisclosure of selection criteria.
- v.) Award of contract by lottery.
- vi.) One-sided contract documents.
- vii.) Negotiation with all bidders.
- viii.) Rebidding without adequate ground
- ix.) Other miscellaneous irregularities.
- x.) Corruption and outside influence. (Mahmood, 2010)

## 3.0 METHODOLOGY

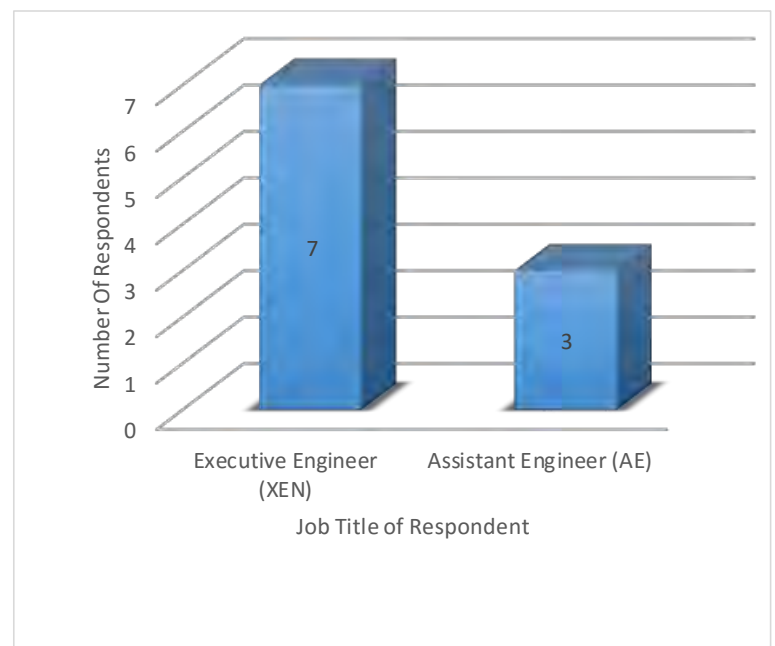
The main Methodology for this research was Primary Survey. Qualitative Open Ended Questions were asked to respondents, who are actively involved the Electronic Government Procurement. A questionnaire was developed to Collect experience and insight of the Procuring Entities (PE's) of Public Works Department (PWD). PWD expend most of the development budget through Executive Engineers at field level. They are the main procuring entities (PE) of PWD. Along with them Several Assistant Engineers were surveyed as they work as the Staff Officer of the PE.

### 3.1 Respondents

As per the Hierarchy of Public Works department, The Executive Engineer (XN) plays the main role of implementing e-GP, thus for this research their insight is most important among all. The Assistant Engineer (AE) who is the Staff Officer of the XEN, also act as the main helping hand of the XEN.

Due the Time Constrains total 10 respondents was selected for Interview. Among them 7 respondents were XEN and the remaining 3 were AE (Shown on Bar Graph). All of the respondent works on different Division of PWD in Dhaka. As all of them were Government

Employee, the respondents were ensured with Anonymity while interviewing. Thus their identity will not be disclosed throughout the paper.



### 3.2 Interview Questionnaire

The Respondents were asked a set of Qualitative open ended Questions in one to one interview. interviewing provides a method for collecting rich and detailed information about how individuals experience, understand and explain events in their lives. Interviews provide greater

detail and depth than the standard survey, allowing insight into how individuals understand and narrate aspects of e-GP.

The question asked the respondent about their experience of working with e-GP. They were also asked about the what factor they think are the enabler and blocker of e-GP. Enabler are those factors that help the PE's of PWD to work more efficiently with e-GP and on contrary Blockers act as a barrier to the e-GP implementation. The respondents were also asked about the what they think is necessary to eradicate the barrier towards e-GP.

Because of the open ended questions responses given by the responded did cover various irrelevant area but some guided question was used to set the respondents on track of the research. But the qualitative nature of the interview helped the interviewee to gather various data. Then researcher then used the interview to collect the necessary information for the research.

### **3.3 Scope and Constrains**

This research will focus on the barriers and enablers only which has an important impact on the e GP implementation. This is a vast subject to be explored as there is minimum 134 PE'S that are involved in e GP. But as part of MPSPM research time and budget is important constraint for such vast subject. This researcher has a make tradeoff between time and scope of the research. This was done by selecting only the key offices of PWD that are situated in Dhaka.

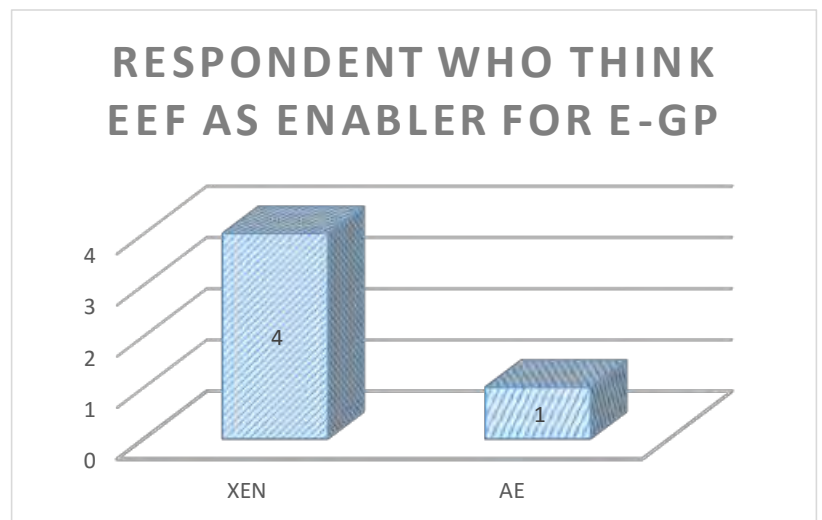
## 4.0 MAJOR FINDINGS

The major findings of the research can be subdivided into two categories. As the research name suggests, the responded view about the blocker and enabler will be discussed below separately.

### 4.1 Enablers of E-GP in Public Works Department

#### 4.1.1 Lesson Learnt from Other organizations

As per government decision e-GP initially implemented to 4 core organization of the government namely RHD, BWDB, LGED and REB. it was implement on pilot basis . From that piloting various lesson learnt has been captured as Enterprise Environmental Factors (EEF) and now PWD is starting from where the other organization has reached. This advancement in the learning curve is a major Enabling factor for the e-GP implantation for the Procuring Entities of PWD.

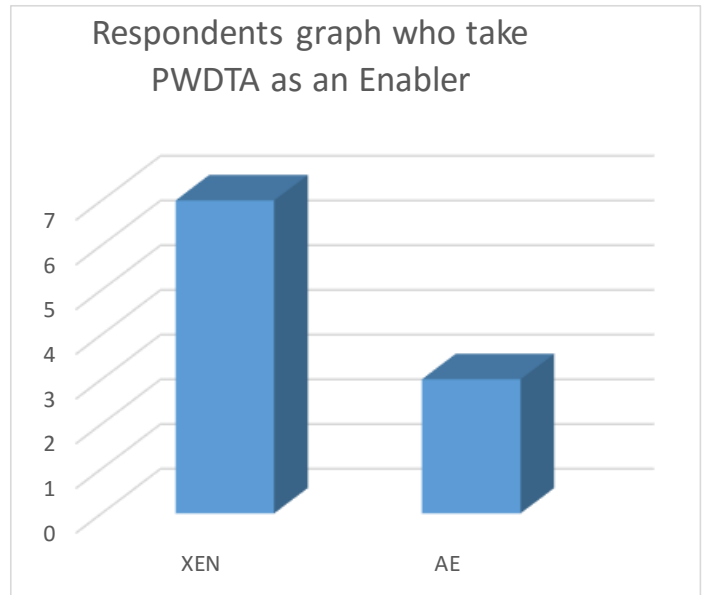


Of the 7 Xen 4 and of 3 AE's 1, thus total 5 respondents have identified the EEF's as enabler for e-GP. This Enterprise Environmental Factors (EEF) includes Government Regulations, Website and CPTU training manual of E-GP. The training manual which can be download from the e-GP website are very helpful for new learners. There is Frequently Asked Questions (FAQ) section on the e-GP website, which build upon the feedback of users. Respondents told that FAQ section has helped them to overcome the very common problem of initial users, this ultimately help them not to turn the same wheel again.

#### 4.1.2 Training Academy of PWD

All of the Core organization has got huge help from CPTU to train their workforce for e-GP implementation. But that factor wasn't same for the other non-focus organizations. Those organizations

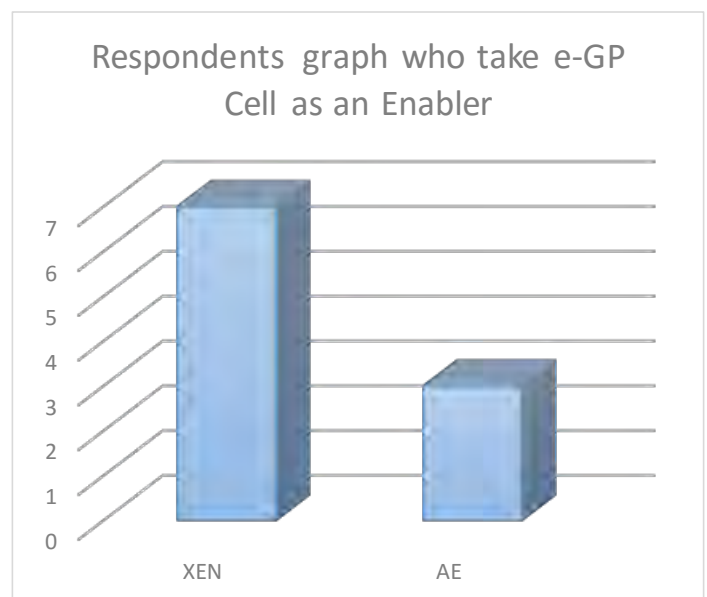
had to arrange their own training System with a limited help of CPTU. Thus the onus of giving training to the workforce of around 1800 employees of PWD went to PWD training Academy (PWDTA). This training academy is situated of Elenbari, Dhaka with fooding and lodging facility. With its limited f resources this training academy has completed training of the 70 % of the workforce and training of the remaining workforce is still running. Thus the respondents pointed out how important role has played by the PWDTA so far in the journey of e-GP.



Of the 10 respondents everyone agreed on the fact that how having flourished training academy has helped PWD to achieve acceleration the e GP implementation. The training academy has created a court mangled for the trainees to have an interactive training. But trainers who conduct the training has been trained by CPTU and also there are guest trainers from CPTU to conduct the training. PWDTA has developed a 5-day training course for the trainees and also gives a lump sum amount of training allowance. The training program has been developed such a way that each training course calls a duo of XEN and AE of same office and they are trained together as they have to work together in their offices.

### 4.1.3 E-GP Cell of PWD

As E-GP has totally new system and requires a decent ICT capability which may be hard to achieve, thus PWD has created own e GP cell to help the ongoing day to day problems. This cell is headed by an Executive Engineer along with one Assistant Engineer and a 4 ICT specialists. This Cell act as a response team to all e-GP related of the officials of PWD, it connects with them through dedicated line. This cell is under the direct supervision of the Chief Engineer of PWD, who is Also the HOPE for PWD.



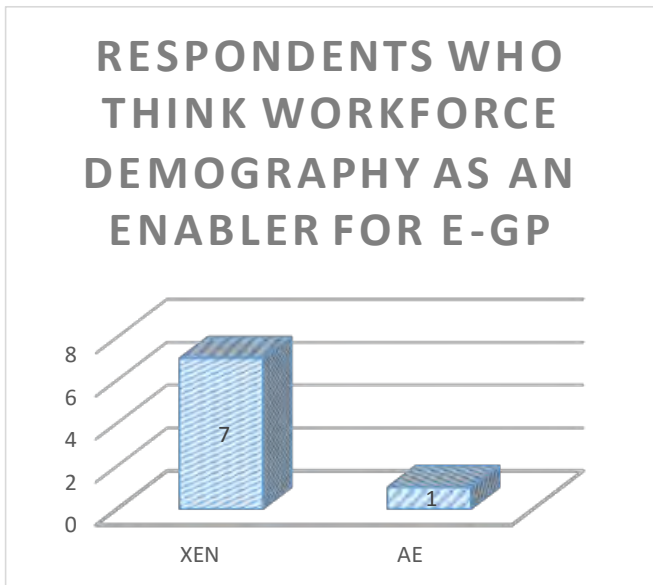


All the respondents nodded that they are e-GP cell's role is very crucial to the advancement of e – GP in PWD. They said that any if they face any critical problem, they call the officials of e-GP cell for solution. Most of the problem are solved over phone by the officials of the Cell, if not they use Video Calling and Email for more assistance.

#### 4.1.4 Workforce Demography

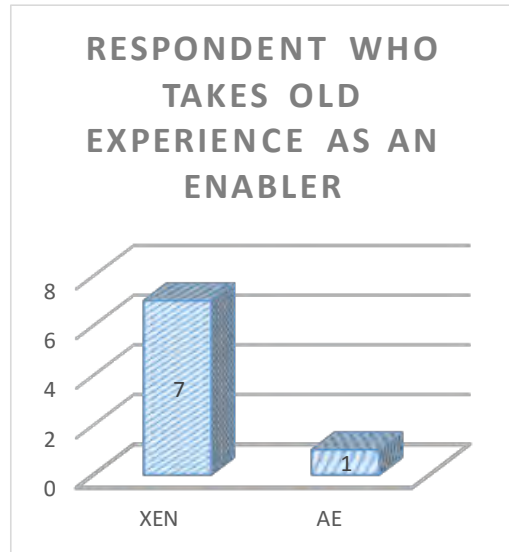
Recent years PWD has got an ample amount of young workforce through BCS exams. This young and energetic workforce has become the driving force for the e-GP implementation. By nature, Young engineers are very tech savvy, they like to use state of the art technology which is in vogue. Thus they took e-GP in open arms as it is tech dependent. Comparatively e-GP was more accepted among the young's rather than the aged group of officials, this fact is corroborated by the seniors themselves.

Of all the 10 respondents total 8 respondents substantiated the fact, of them 7 are XEN and 1 is AE. Respondents told that whenever there is a problem faced by the PE, he calls his AE to sort it out. In most case those problems are solved on spot by them. if the AE fails then only they contact the e-GP cell. Another interesting observation is that, in most cases when verbal solution is given by the personnel of e-Gp cell an is most helpful to understand the solution, as he XEN sometimes lacks the ability to understand the nitty gritty of the technological arena.



### 4.1.5 Bitter Experience of Manual system

Before the transition to e-GP. Traditional Paper based method was used in public procurement. That had lot of drawbacks such as Highly paperbacked, risk of human error and manipulation, coercion by various parties. But in e-GP system all such problem is eradicated at once. Most respondents who worked under the traditional system expressed that bitter experience by the traditional system. All the 7 XEN has expressed their feeling how risk free they feel by using e-GP. They said now as the whole Tendering process is framed by a programme in e-GP system thus they have less burden of abiding rule also they



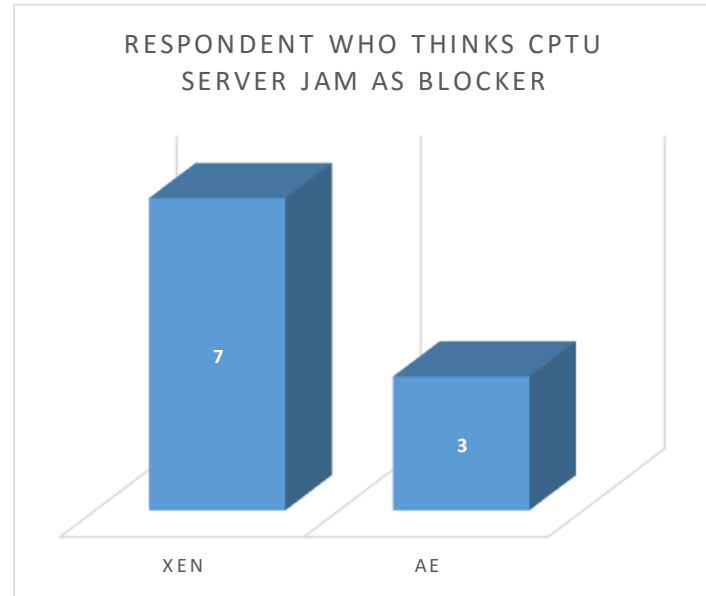
have no clams of Collusion, Fraudulent activities by any parties. In previous system the PE had to receive calls from various parties to manipulate the tender for them. Some PE's even got death threats, as miscreants thought paper based system is easy to manipulation by the PE. But now scenario has changed, due the nature of the e-GP even the layman knows that no manipulation or evading the law isn't at all possible by the PE.

## 4.2 Blockers of E-GP in Public Works Department

### 4.2.1 Server Problem of CPTU

National e-Government Procurement (e-GP) portal (<http://eprocure.gov.bd>) of the Government of the People's Republic of Bangladesh is developed, owned and being operated by the Central Procurement Technical Unit (CPTU). All the e-GP related operation are conducted on this unified website, thus for PE's this website is there extended office. For the very same reason this website got logged on by thousands of users such as Tenderer, PE and other stakeholders. But most common problem that was faced by all the respondent is the server jam of CPTU website. All the respondent describes their arduous experience of using the website. Some respondent said that

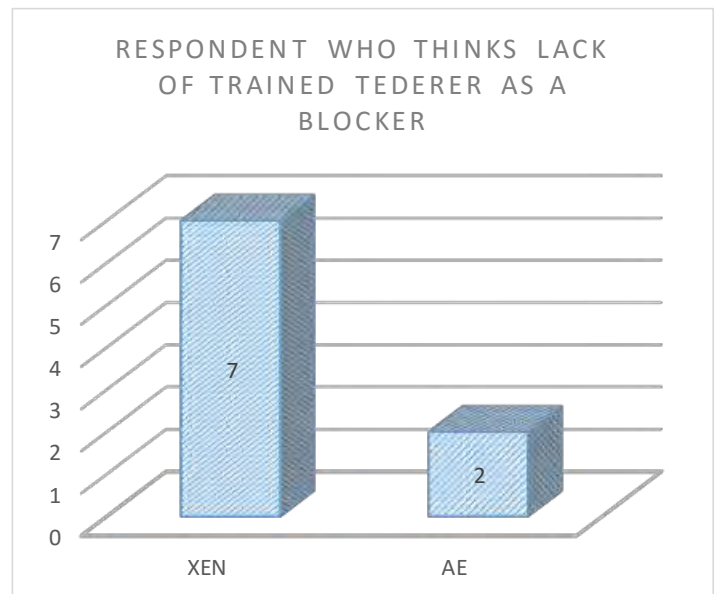
when they logged in the website for tender opening at a specific time they could not do that as the server was jammed. Then the tender process got blocked and only can be opened by the HOPE's intervention. This causes a Non Value Adding task on the Process and costs extra time and money.



### 4.2.2 No or Less training of the Tenderers

Though various government institutions are created to train up the officials who conduct the e GP process but there was none is the case of the counterpart, namely the tenderers. Most of the tenderer are not well trained to use the e-GP website, this has hindered them to bid in to the tenders of related field.

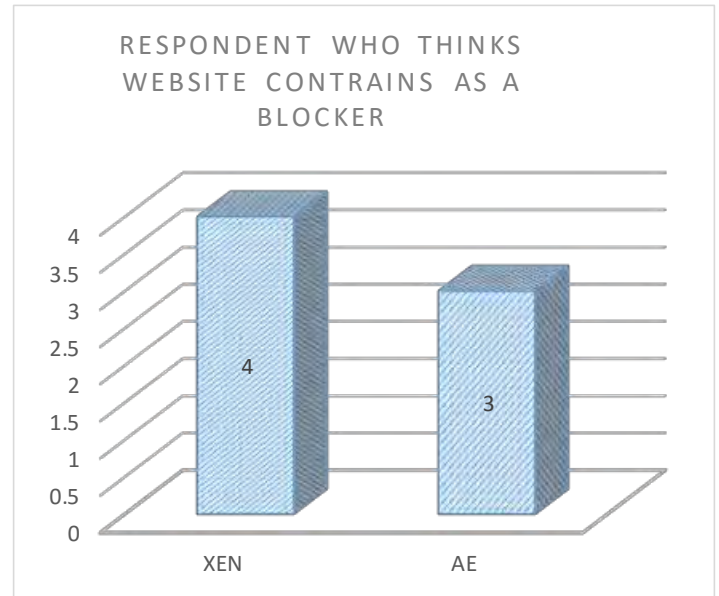
Respondent describes their frustration about not finding adequate completion for the tenders as most of the tenderer are not in the e-GP server. There have been several incident where re tender has to be issue due to not having tenderers. Another issue is, Small



Medium Entrepreneur (SME) tenderer are left out from the bidding as they don't have enough documents that are needed by the e-GP website. This issue was escalated by 7 Executives engineers and 1 Assistant Engineers as a blocker of e-GP system implementation.

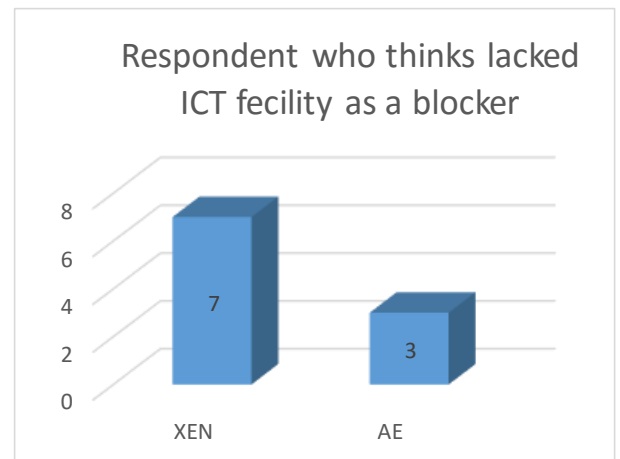
### 4.2.3 Website related Constrains

Respondernts stated their dissatisfaction of the interface of e GP website .They said the website can be made more easy to understad for the bigger . In this case many of them given the example of FACEBOOK being how easy understand fro the firt timers, . Another website related problem is , most of the offices use the Bill of Quatitiy (BOQ) in Microsoft Excel (.xls) format but in case of e-GP website there is no way to upload the already prepared BOQ . Thus they must input the items of BOQ seperately in the website . This is a time consuming from the point of view of the PE . Incase of a big tenders there may be 500 to 100 items , this expalins how tough it would be to prepare BOQ item by item typing .



### 4.2.4 Office Lacks ICT facility

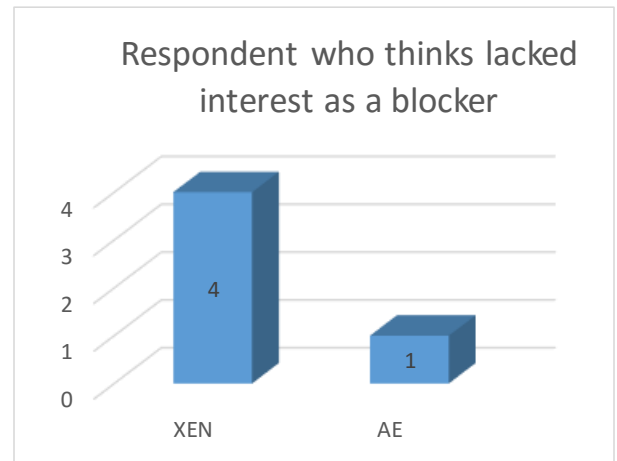
ICT facility is the utmost precondition of the e-GP implementation. if the office which has the onus of operating e-GP, lacks the facility then the whole process will not be successful. Respondents told that most of the office of PWD lacks facility of e GP implementation such as Laptop, Internet Connection. From a survey done by PWD , it is clearly evident that most office doesn't have Computers and those office which has computer that is only for the XEN . But in e GP process the AE and SAE are equally important to have a computer. These is also another fact that,



government does not officially recognize the internet bill of the Divisions. Those divisions which are in the Head Quarter has default internet connection but this doesn't cover the distant divisions. Other logistical problem face by the PE's are – Electricity and Virus Attack of PC that causes data theft.

#### 4.2.5 PE lacks interest

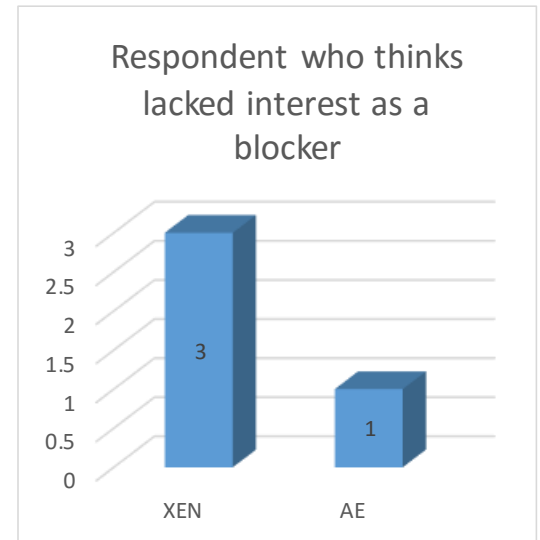
PE are the Key to this system, circling him the whole system is built. But for various reason the PE are not interested in using the e-GP system. This reason consists the fact that senior workforce like the status quo and they resist the change. Another reason is they scare using high end tech as most of them think all this very complicated. PE then delegates most of his work to either his Personal Assistant (PA) of Assistant Engineers or anyone in this office who has computer ability. This attitude of them create another problem as the Privacy of the tenders may get exposed to risk. Thus tender process may lack confidentiality and integrity.



Of all the respondents, 4 XEN and 1 AE has discussed their experience of such problem.

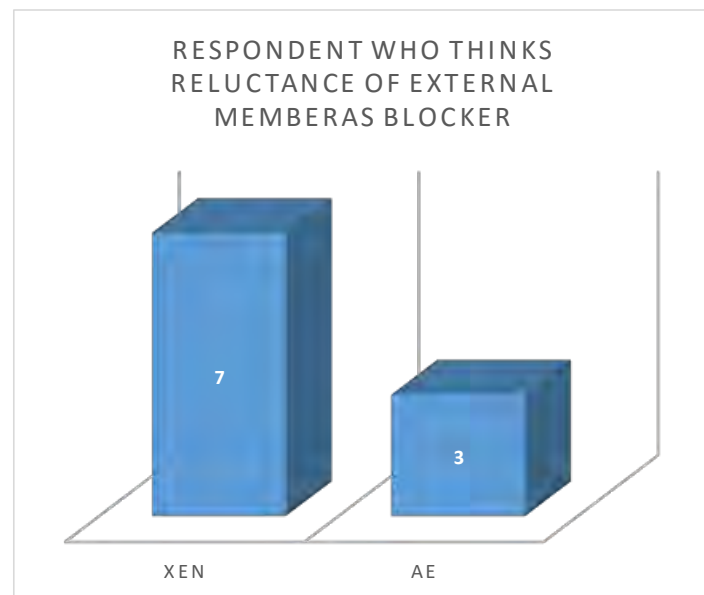
#### 4.2.6 Sign in and Sign up Problem in e-GP

While opening an Account in e-GP no email verification is required thus many fake account is created under one PE. This is a huge problem, as this fake account Can be used to manipulation. if this account is verified by actual email then it can easily be retrieved at once when the account owner lost his password. Now for password retrieval HOPE must be notified and he then open the account. this is very time consuming as HOPE has other important work to pursue. Respondents detailed about their ordeal to retrieve their password. 3 XEN and 1 AE has face this problem and needed the help of the HOPE to solve the problem.



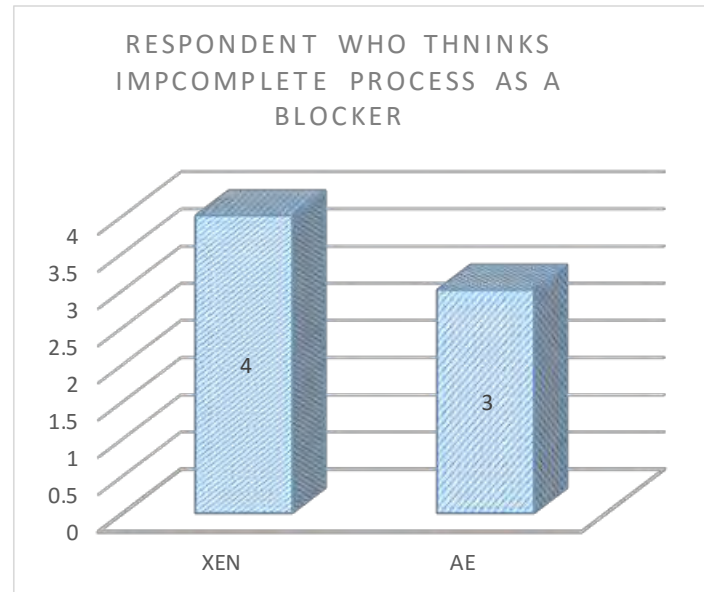
#### 4.2.7 Account availability of External Members

The main work of PWD is deposit works, where PWD implements for the sponsoring organization. For this reason, a representative from the sponsoring organization must be in TEC and TOC. but in the e GP system, there is no provision to have a member form the external organization. thus the sponsoring organization becomes unhappy about the fact. there have some cases, for this reason, many tender had to do in manual system as sponsoring organization was reluctant. All the respondent shared this as a huge blockage in the way of e GP implementation. they said if this isn't eradicated early then sponsoring organization may feel powerless and will be reluctant on the e-GP.



#### 4.2.8 Incompleteness of the Process

All of the respondent expressed their dissatisfaction about e GP that is it not yet holistic as it doesn't contain the Payment system to be embedded into it. Thus the payment system must be included into it. It is very much necessary that payment is also included online rather than now offline system. this will make the procurement more secure and will create credibility of process. CPTU has single MoU with several banks for the online money transfer into the account of the tenderer. Hope soon this problem will be eradicated.



## 5.0 RECOMMENDATIONS

Though this research solely focusses on the enabler and blocker of e-GP but while taking with respondent several recommendations came as a prescription to make the process more apt. Those recommendations are discussed below

### 5.1 Effective Change Management Program

One of the most significant barriers to successful implementation of e-GP is the resistance of organizations to change. Organizational cultures and fear of reorganization create resistance to integrating work and sharing use of systems across several agencies. It is difficult for the government officers, who are practicing traditional way of contracting, monitoring, reviewing and payment for years, to adopt transaction without face-to-face discussion.

A fundamental barrier to getting productivity from government ICT is government's inherent resistance to change. E-Government uses ICT to improve productivity by enabling better interactions and coordination. But each opportunity requires substantial changes in current bureaucratic procedures. Success will depend on breaking down the resistance to such change. A holistic approach is needed, and each E-Government initiative must include results oriented performance measures, policy alignment, training, communications, and organizational change milestones.

It is not uncommon for the traditional purchasing cycle to take months from the initial formation of the specification through to the award of the contract.

A survey shows that the following are percentages of total time

- searching for/identifying appropriate suppliers is 53%
- managing/communicating preferred supplier list is 7%
- Tender document development is 10%
- Tender response/receipt is 7%
- screening/sorting tenders is 20%
- contract signing 11%



The whole process takes, on average, 3 to 4 months. e-Government Procurement (exchanging tenders documents electronically) can significantly improve the efficiency and time taken to complete a purchasing project, many of the activities listed above can be managed electronically and/or automated. e-Government Procurement portals (secure dedicated websites, specifically set up for the exchange of information and tenders documents electronically over the internet <http://www.eprocure.gov.bd> ) and systems should allow the buyer to create, manage and transmit contract announcements (notices and addenda) electronically. Tenderers can create and manage multiple profiles containing expressions of interest/pre-qualification information. Invitation to Tender (ITT) documents can be exchanged electronically, and the assessment and award of tenders is usually automatic. E-Government Procurement portals/systems can significantly reduce the numbers of hours and bureaucracy to create and award a tender. It also creates an electronic audit trail that can be used to provide more effective management information, particularly in respect of the statutory returns local government departments are required to produce on an on-going basis. All contracts from the public sector which are valued above a certain threshold must be published in the CPTU website according to Bangladesh legislation. The legislation covers organizations and projects which receive public money such as Local Authorities, Central Government Departments, Port Authorities, Defense etc. They must advertise in CPTU if the value of the goods/services or works exceeds the relevant thresholds. Because the legislation directly affects the public sector, e-Government Procurement is currently used more by those involved in the tender process within the public sector.

## **5.2 CPTU Server Upgradation**

The server of CPTU is very weak and thus it needs upgradation for the upcoming loads. So government must take initiative to upgrade the server. Highly technical team should be given the task to design the server that may be capable of containing the load for next 20 years. There is another issue for the safety of the server in case of Earthquake or natural calamity. thus a contingency server must be built on a different location so that system never gets into downtime. Now the server is located on the CPTU building in Agargaon, Dhaka. this is an office building and is not apt for the server to contain. thus a dedicated facility for the server must be built.

## **5.3 Adequate Internet Connectivity**

All over the Bangladesh, internet connectivity speed is low and somewhere connection is not reliable and not continuous. PWD offices have internet connection in all offices now, but the service need to be

improved. Connection facilities of bidders are limited. Usual time for submission deadline is between 12pm to 3pm, and traditionally bidders submit tender at last moments. Also, tender opening will be soon after deadline of tender submission. So when e-GP will be introduced at large scale, there will be huge traffic in internet infrastructure of Bangladesh and it may collapse.

## **5.4 Security of System must be increased**

Hacker, virus, spam, phishing is great threat for internet base computerized systems. Server of the system and workstations at users' end, all are under threat. Proper antivirus software and only legal purchased software should be used in all workstations and servers. In Bangladesh there are now several internet Antivirus software available to buy. Any credible software may suffice the needs for the protection of system.

## **5.5 Contractors must be trained**

There should be a training facility for the contractor to know about the e-GP system. CPTU in this case may coordinate such task. There may be a tendency to charge high for such training as the contractors are very financially affluent people but this is not right. Even government may arrange free seminar and training session for the contractors, especially for the SME contractors. Their feedback for the website must be taken into cognizance, there is a tendency that their voice is never heard. There may a rule set in place about a minimum amount of training requirement to be eligible for bidding set by the PE's. this will create an inclination of the contractors for the e-GP training.

## **5.6 Incorporation of all related organizations**

As e-GP is a unitary website of government to procurement thus it has to contain all multi-faceted organizations in the Government sectors. Currently it holds only those organizations that directly involves in procurement, which is insufficient. CPTU must make a stake holder analysis for the government procurement sectors organization. the outcome of the analysis would be a stakeholder list who are important for procurement. Then e-GP website must be modified such a way that all relevant personnel

from those organization can have their own account in the website . Thus this website will achieve its goal and be the unified platform for all procurement activities.

## **5.7 Interactive training design**

Currently the ongoing training of e-GP isn't achieving what was planned. it seems training system needs upgradation. thus more interactive style of training must be designed by the scholars. Only then the seniors can be more related with the system. Currently there is a shortfall in the system for which senior officials are not cozy with the system. innovative training must be incorporated where the training will be done into several packages so that the officials doesn't forget what they learnt. There is a simple way of training such as uploading training video and other material into he website so that the participant can watch the video whenever they want.

## **5.8 Miscellaneous Recommendations**

- The formation of a high-powered steering committee or board with a mandate to take decisions on all issues is important factor for successful implementation of the e-GP agenda. This board can be composed of concerned government ministries, CPTU, Private Sector under the strong leadership of Prime Minister. Regular meetings once every six months should be initiated by this board to consider in detail all issues that arose during implementation and to provide solutions without loss of time.
- e-Government Procurement initiative needs to be monitored regularly to identify opportunities for ongoing improvements. This includes periodic and planned reviews. After specific period and based on collected information the Strategy should be updated and new objectives should be set forth
- International practice has several options for revenue generation for agency like CPTU such as (i) Annual subscription fee from suppliers; (ii) Transaction fee paid by supplier awarded the contract and (iii) Fixed fee per tender participation. However, such fees need to be kept on a reasonable level in order not to run the risk of reducing supplier's participation.

- Currently there are two procurement websites: [www.cptu.gov.bd](http://www.cptu.gov.bd) and <http://www.eprocure.gov.bd>. Ideally, information shall be consolidated on one website with appropriate information and both Bangla and English should be used.
- Internet connectivity of the country should be improved. As it is not possible to do overnight, bidders may be encouraged to submit tender at night. Also tender opening time may be spanned for any time of the day.
- After the establishment of CPTU, 96 directorates of 24 ministries have been brought under the electronic government purchase system (e-GP). At present, 1,894 procuring entities of various directorates have been conducting their purchase activities through the e-GP. As a result, 15,332 tender bidders have registered with CPTU. Besides, 1,686 branches of 37 banks have linked themselves with the e-GP. Some 25,665 tenders have been called under e-GP and 15,980 tenders completed successfully, according to an official of the planning ministry. The activities of CPTU have increased so much that another data center is being set up, he said. All the government purchases could be done under e-GP when the second data centre is up and running. (Byron, 2015) Since the volume of work under CPTU will increase, a separate ministry for it will have to be established, whose name will likely be the Government Purchase ministry

## 6.0 Conclusion

In order to conduct public procurement Government developed a uniform legal and regulatory framework through the enactment of the PPA and PPR in 2006 and in 2008 respectively. These legal instruments provide provisions for transparency in different stages of the procurement chain. It is critical to monitor implementation of procurement law and procurement processes. The relaxation of binding experience and introduction of lottery through the amendment to the Public Procurement Act, 2006 have, allegedly, been made to give favour to the ruling party people. Lack of transparency provides an enabling environment for taking place of all these forms of corruption in public procurement.

Information transparency facilitates an environment to monitor the public procurement system. In this direction, Government passed RTI Act in 2009 and the Public Interest Related Information Disclosure (Protection) Act (whistleblowers' protection law) in 2010. According to the RTI Act, the procuring entities are bound to proactively disclose information regarding procurement planning and decisions and to provide information about these upon requests from citizens, resulting in a transparent procurement system in the country.

Though these legislations are quite recent, the outcomes of the RTI and whistleblowers' protection laws are far from encouraging. Awareness of the laws is quite low and utilization even worse. This is mostly due to the limited capacities within both citizen groups and government, and more specifically, due to weak efforts by civil society organizations, including the media to utilize the space and entry provided by these laws. The best implementation models entail disclosure of as much information as possible; more importantly at the point where records are created. Proactive disclosure makes the law easier and cheaper to manage. ICTs can make the disclosure easier and cheaper. However, website based approaches to transparency should not be seen as a universal remedy in a country like Bangladesh where Internet penetration is extremely low with just 35 users per 1000 inhabitants (IGS, 2010). So, web-based disclosure should be a complement to hard copies and traditional publication rather than as a substitute. In addition, the Information Commission can document best practices and lessons learned and widely disseminate the same to stimulate replications and adaptations. Sharing best practices across sectors will also help avoid delays and inconsistencies and result in better and efficient utilization of resources.

The Information Commission in association with CPTU and civil society organizations can pilot the application of RTI in select procuring agencies. The Second Public Procurement Reform Project has targeted four agencies for reforms, i.e. Roads & Highways Department, Bangladesh Water Development Board, Local Government Engineering Department, and Rural Electrification Board (for details visit

www.cptu.gov.bd). These agencies will provide all information in relation to procurement decisions and processing to citizens. These pilot agencies will develop best practices and become examples for other agencies across the government. A manual and implementation plan for the four target agencies can be prepared for application of RTI. The manual should cover records management, assessment of requests for information, provision of documents, and interpretation of the law.

Information remains powerless unless it improves procurement process and reduces corruption. The DFGG model provides a holistic approach to make information impacted on procurement processing and decisions. Last but not least, transparency should not be seen as an end; rather it is process that builds integrity in procurement system. The mere emphasis on integrity may slow down the procurement process affecting competitiveness in public procurement. Thus, a balance has to be ensured between integrity in procurement system and its competitiveness. (Islam, n.d.)

All historical information relating to the award of the tender will be held on the e-Government Procurement portal/system. This means that auditors can find all the information they need in one place, along with an auditable trail of the award decision. Anybody who has dealt with the reams of paper that can be involved in the traditional procurement process and has read this document will hopefully now see the obvious benefits that an e-Government Procurement system/portal can bring. Electronic tender document evaluation systems can improve the procurement process significantly, if they are well adapted, time can be saved in terms of bid evaluation; hence quickening the process, reducing the strain on the resources and thus realizing economies of scale.

e-Government Procurement solutions can undoubtedly improve the procurement process and drastically cut-down the amount of time taken. This can result in an increase in the amount of tenders undertaken at any one time and/or an improvement in the overall control of the process. End users can be given access rights to involve them in the process to a large degree ie the specification writing etc and work with purchasing to achieve the best overall value in terms of price and quality.

As this Research had time constrain so this research have various other scope for future research. Electronic Government Procurement is a relatively new area of study. Bangladesh government launched e-GP as pilot basis in four targeted engineering organization. Present research examined situation of Public Works Department only. Future research options are given below:

- Performance measurement of e-GP system through various Key Performance Indicator (KPI)
- Performance measurement of the procuring entity and bidders and competitive study of these.
- Find out actual cost savings in tendering process to assess how much Value For Money (VFM) is achieved
- Identifying the training needs, motivational issues and composing a comprehensive training plan for both procuring entities and bidders.
- Develop a virus free platform for e-GP.
- Ethical issues in e-GP.
- Identifying the reason to reduce number of potential bidders since 2003.
- Identify the alternative way to assess competency of bidders.

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