Providing Transparency & Streamline the Procurement Process through the e-Procurement Management System

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Abstract: This paper examines the major procurement problems including lack of internal communication among procurement sections and languid procurement activities which hinders the implementation of procurement projects, as well as the agencies, cannot use the available annual budget completely, in this paper various methods have been used to better define the existing challenges of procurement, such as interviews, questionnaire, and literature review. This study introduces four applicatory goals in the area of electronic government procurement (e-GP). The main objectives of this study are: (i) To make the procurement process more efficient (ii) Optimal control and management of procurement activities, (iii) To actualized the transparency and accountability, and (iv) To change the conventional procurement to e-procurement system through a web-based application. And finally to find out the effectiveness of the system, it was shared with local procurement experts for test and validation.

Keywords: E-procurement, Government procurement, Procurement process and Conventional procurement.

1 INTRODUCTION

E-Government procurement (e-GP) refers to the application of ICT in the area of public procurement, it relates to the development of new procurement methods aiming at exploiting the capabilities that technology provides "... hence," achieving efficiency gains that a paper-based procurement environment can't offer (OLC.worldbank, 2011).

Current e-GP systems are at various levels of maturity. Some countries, such as the Republic of Korea, have implemented advanced, fully integrated end-to-end e-GP systems. Others, such as Canada, Chile, Indonesia, Malaysia, Mexico, the Philippines, and Portugal, have applied e-GP systems for nearly a decade, and they are now used extensively by a large number of procurement entities, with scope for further growth. Bangladesh and Georgia initiated e-GP implementation around 2010, with plans to implement full-fledged e-GP systems. A handful of countries have already made plans but have yet to embark on e-GP implementation, and...
a few countries have yet to take even the initial steps (ADB.2013).
Implementation of electronic government procurement (e-GP) started from 2005 practically by the government of Afghanistan and e-procurement is a major part of the Afghanistan government's plans for the institutionalization of good governance, and increase the quality of work and services.

According Anwar M. Raufi, 2010 The procurement system of Afghanistan is a centralized system but the effort is being used for decentralization of this system at the national level, although there are many barriers to creating, an effective, and sustainable procurement system in organizations.

The main challenges include lack of internal communication among procurement sections, lack of transparency, lack of a comprehensive procurement system, traditional procurement system and disorder of procurement activities always causes, that government agencies not fully utilize their annual budget and lose millions of dollars annually.

To bridge the gap this research introduces the e-Procurement Management System for the ruling problems which can help to manage the organizations spending, and compare to conventional system which is usually manage by Microsoft word and excel the e-PMS is faster and creates a strong work relation between different procurement section and amplify procurement activities. The followings are the objectives for this paper.

- To institutionalize the transparency and accountability in the procurement affairs
- To change the conventional procurement system into a standard and comprehensive system.
- To make the procurement process efficient for companies to participate in government procurement.
- Effective control and management of the procurement process and save resources.

2. METHODOLOGY
This study uses a literature analysis method through reviewing the similar case in different counties, a comparative analysis was carried on ERP in ....and eP in Malaysia, to propose a suitable modal a data collection through questionnaire and interview was conducted in procurement department of three major organizations in Afghanistan namely Ministry of Transport, Ministry of Finance and National Procurement Auturation of Afghanistan.

2.1 Literature review
The purpose of this literature review is to assess the potential usage of e-procurement system and the extent to which e-procurement system can solve the existing problems of the procurement sector in Afghanistan. Hence, two similar cases have been reviewed, namely ERP and eP system in Malaysia.
2.1.1 ProcureAgent (ERP) is a feature rich web-based application dedicated to Requisition, Purchasing and Supply Chain Management. From requisition entry through to order fulfillment, ProcureAgent software incorporates all the tools needed to centralize and run the purchasing operation. (plucomtechnology, 2018)

2.1.2 The Malaysian e-procurement System (eP) is the second related procurement system that has been studied in this research. The system has future like improve the efficiency through by an automatic purchasing and supports the digital Malaysia initiative, a national program to advance the country towards a fully digital economy by 2020 (eiplatform, 2013)

(Figure1) Table of comparison between two systems

As a result, both the systems have been developed to simplify the procurement process, to streamline the transparency and to provide a better condition for government to business (G2B).

2.2. Data Collection
The primary goal was to find out the problems in the government procurement departments, to do so, two different approaches have been used to identify the core problem including questionnaires, face to face interview with procurement experts.

2.1.1 Questionnaire:
A total of 35 questionnaires were sent in April 2017 by email for procurement employees in several governmental organizations, 17 out of 35 responded to all ten questions. All the questions were based on the current problems in the procurement departments and the measured use of information technology in the procurement processed.

2.1.2 Interview
In this stage totally eight procurement experts who were working with government in procurement section for many years was interviewed. The focus of the interview was to understand the main problems in the area of procurement including poor coordination among procurement sections, lack of transparency, poor planning system and lack of mentoring mechanism.

2.2 Data Analysis
In the final stage all collected data from the interviews and the questionnaire were analyzed using IBM SPSS Statistical Analysis software and Microsoft Excel. The result shows the major problems of procurement deparments. 19 out of 25 participants believes that Lack of internal communication among procurement sections is the core problem in the procurement deparments, followed by disorder of procurement activities, lack of
transparency, lack of system for provides a comprehensive procurement planning, traditional procurement system. Lack of an comprehensible ICT systems. The figure 2 shows the result.

(Figure 2) The current problems in the procurement sectors

3. PROPOSED MODEL
The E-procurement management system (ePMS) is a web-based system and basically a new electronic procurement system in government agencies which provides a framework for collaboration among all sections of procurement within organization.

The system has been prepared to facilitate the procurement process, effectiveness in the area of purchasing and planning, as well as the process of the projects. Today procurement is not limited to the provision of goods and works since, control and management of procurement process become important especially in government area.

For providing better procurement services, it is essential to control the procurement procedures to develop the efficiency and effectiveness of the planning and purchasing and create a positive atmosphere in the procurement departments.

E-procurement management system can allows departments to send order requisitions through by e-PMS system and allows the procurement departments to approving the order requests, make the procurement planning, oversee the process of the projects and set up the purchasing operations in one place, moreover saving the important data in one central location and makes communication easier and faster between all procurement sections.

At the same time, the procurement director or manager is responsible to approve orders requisitions according to requirement and price. In this stage, according to the procurement law and roles, low value and immediate orders are made to the purchasing section and high-value orders are sent to the planning section.

The orders requisition are processing by three main areas as below, these areas will serve as the framework for the e-GP system.

3.1 Online approve the orders requests
After order has issue by procurement director the purchasing section may operate e-PMS software for providing the purchase order documents and search for qualified suppliers and complete the purchasing process within the specified timeframe.

3.2 Make the procurement planning
E-PMS system allows the Planning section to process the activity cost estimates, project schedule like provides information regarding dates of deliverables products or
services and making require timetables for projects, provides information about the project stakeholders and maintain information about market circumstances. In addition this section makes an annual plan for all projects which will implement by contract management section and prosecute the implementation of the projects.

3.3 Contract Management

through by e-PMS application the contract management section arranges the bidding documents, project declarations, provides contract documents and oversee the projects activities as acquire according to the procurement annual plan.

4. Verification

The system has been shared with 5 procurement experts to verify the effectiveness of the system. They had the opportunity to fully study the system, they evaluated the system positive, as follow:

4.1, As a procurement officer the system can provide a lot of facilitation in the procurement sectors of Afghanistan.

4.2, The e-Procurement Management System looks like a supplementary system for procurement, it can create positive changes in the procurement field.

5. Conclusion

The e-Procurement Management System will be used for the first time in the Afghanistan government agencies. Which will be a new and innovative trend in the procurement departments, the system will make smooth and efficient the process of the projects.

The result from varification and evaluation highlights that the system has a positive potential for optimizing the procurement management system and will solve the current procurement problems in governmental organizations.

The system will be a web-based comprehensive system, utilizing ICT in all level procurement activities, and will pave the ground for achieving the institutionalizing transparency goals and adjust the daily procurement activities and make sense the monitoring procedure which allows the directors and managers to approve online procurement orders requisitions and classify them automatically into two categories by considering the price and requirement and
each section can easily process the orders requisitions. Finally, the e-procurement management system (ePMS) will simplify the procurement process and eliminate the inconsistency in procurement departments.

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