

# The Level of E-Procurement Usage in Project-related Procurement Practices in Sri Lanka: A Case Study

W.N. Sellaheewa

*Kaatsu International University, Sri Lanka*

*wasana@kiu.ac.lk*

## **Abstract**

*The term procurement has been become a very crucial in contemporary world. Procurement is the act of making the right product or service available to the right person at the right time at the right price in the right place. Procurement implications can impact on the overall cost of carrying out the decision in any organization. In this globalized world, almost all the processes are being becoming digitalized while manual systems are disappearing. In this context, procurement systems have also been digitalized in most of the countries in the world. The e-procurement practices have been acquired such a popularity just because of the benefits of it. In this context this study has been conducted to identify the level of e-procurement usage in public procurement in Sri Lanka. Accordingly, this study has been conducted as a case study with reference to the Sabaragamuwa University of Sri Lanka. The purpose of this study is to investigate the level of e-procurement usage in public procurement in Sri Lanka. This study is relating to the exploratory qualitative case study design. Primary data for this research has been collected through in-depth interviews followed a semi structured questionnaire and observation method. Sample size was 20 including Procurement officers, administrative officers related to the procurement in the university, Project Coordinators and Activity Coordinators of the projects within the Sabaragamuwa University of Sri Lanka. Data has been collected using convenience sampling method. Gathered data have been analysed using Within-case Analysis. Accordingly, it has been provided detailed description of the selected case and then it has been elaborated the several themes within the case. As the main findings of this study, it was revealed that the level of usage of e-procurement practices is low at Sabaragamuwa University of Sri Lanka. Further, recommendations for increasing the level of e-procurement practices and the way of increasing the efficiency while eliminating delays using e-procurement practices has also been provided in each stage of procurement based on the recommendations provided by the respondents.*

**Keywords:** *Public Procurement, E-Procurement*

## Introduction

Through the uproar of media outlets and digital devices, technology is disrupting our natural lifestyles. By today, technology has been affected on almost everything in human lives. Technology has shaped our lives easier while introducing more simple and efficient ways of doing things. Accordingly, this situation has been influenced on the way of doing procurement practices as well.

Although “procurement” has become very popular by contemporary world its history goes back to 17<sup>th</sup> century. The term “procurement” has its roots in military logistics where formally acquired goods and services in in 17<sup>th</sup> century. Simple meaning of the term “procurement” is the process of finding and agreeing to terms, and acquiring goods, services, or works from an external source, often via a tendering or competitive bidding process. The **aim of e-procurement** is to provide digital solutions in order to optimize the **procurement** process.

It has been identified the ways of conducting all the Manuel procurement practices with the help of technology. It was revealed that doing thing electronically reduces the unnecessary delays. These kind procurement practices are well-known as “e-procurement” and the meaning of e-procurement is purchase and sales of goods, works and services through the internet as well as other information and networking systems. The e-procurement value chain consists of indent management, e-Informing, e-Tendering, e-Auctioning, vendor management, catalogue management,

Purchase Order Integration, Order Status, Ship Notice, e-invoicing, e-payment, and contract management.

E-procurement in the public sector is emerging internationally. Most of the developed countries like India, Bangladesh, United Kingdom, United States, Malaysia and Australia successfully using electronic procurement systems as a governmental practice.

This study will distribute a significant knowledge regarding the usage of e-procurement within Sabaragamuwa University. Therefore, the implications will be vital for other universities as well because most of the government university practices are homogeneous in nature. Other government universities in Sri Lanka are possible to just conduct a pilot study and identify the level of usage of e-procurement. Then they can practice the recommendations provided by this paper. It is also possible to generalize the findings once this study conducted with a sample which represent all the public universities in Sri Lanka. Further rooms are available to expand this study with the use of public sector business organizations as well.

## Literature Review

### Definitions of Procurement

Procurement guidelines (2006) issued by the National Procurement Agency in Sri Lanka, defines Procurement as “obtaining by Procuring Entities of Goods, Services or Works by the most appropriate means, with public fund or funds from any other source whether local or foreign received by

way of loans, grants, gifts, donations, contributions and similar receipts". Therefore, the simple meaning of procurement can be mentioned that acquiring of goods and services from the most effective way. Public procurement is the process by which government buys goods and services from both public and private suppliers for the needs of its people (Cardapan-Antonio,2003).

### **E-Procurement**

E-procurement became one of the most successful applications in the world. It had been widely adopted by companies seeking better business processes proved bottom line. These advantages had not been lost on governments which engaged in extensive buying activities and are major customers for a wide range of goods and services (Yusof, 2010)

Anthony Flynn and Paul Davis have been conducted a research on theory in public procurement research and for conducting a systematic literature review for their research they could only find 29 percent of articles theoretically grounded, with the incidence of theory having increased in recent years. The meaning of e-procurement is the use of IT in procurement activities. The prefix "e" usually denoted something related with information and communication technology. e-procurement referred to the use of integrated information and communication technologies to carry out individual or all stages of the procurement process (Croom et all, 2004). The level of e-procurement usage and e-procurement adoption depend on various factors such as the

organizational factors, managerial factors, customers and suppliers of the organization and government requirements. The factors affecting to the adoption of e-procurement is varied when it practices in different contexts (Williams,2006).

Lefebvre et al., (2005) classified e-Procurement functionalities in detail considering information and transaction perspective as a part of B2B e-commerce study. Accordingly, searching for new suppliers and searching for goods and services is considered as "electronic information search"; purchasing via e-catalogues, placing and managing orders with suppliers and accessing suppliers' goods or services database as "simple electronic transactions", purchasing via e-auctions, e-tenders, negotiating contracts with suppliers, making payments to suppliers, accessing suppliers' inventories and allowing suppliers to access the buyers' inventories as "complex electronic transactions"; and sending documents to suppliers, doing collaborative online engineering with suppliers' and tracking goods purchased during transportation as "electronic collaboration" (Hasan 2013).

### **Theoretical Framework**

A framework has been derived from a comprehensive study on impacts of IT on the public sector (Andersen & Danziger, 2001). In this context we apply the four areas for evaluating the adoption incentives of the municipality of Copenhagen. The capability perspective suggests the motives for electronic procurement adoption to be a matter of better

access to valid information about products which could lead to improved quality of the information about electronic procurement. The perspective also includes the expectation of more efficient routines and faster procurement processes inside the public sector institutions. The interactivity perspective focuses on how digital procurement is corresponding with the patterns of power and control of the eProcurement process, communication among the units involved in eProcurement, and the coordination of the eProcurement tasks, people, and policies. It also considers the relations between the public and private sector such as enabling of shared eProcurement between the private and public sector and a different role of the suppliers.

There are theory and practice related to the e-procurement adoption. Orientation of the decision-making processes is related to the impact of digital procurement on the unit's cognitive, affective and evaluative considerations. For example, we consider whether digital procurement makes actors structuring problems differently and whether the employees perceive that their discretion has been altered by digital procurement. The perspective concerning value distributions is related to whether a public institution experiences a shift in values that is attributable to digital procurement. Specifically, values associated with the well-being of employees. That indicates the matter of do they experience increased surveillance of their procurement behaviour and do they disapprove this. Further, the job

satisfaction and job enlargement of public employees which means do they experience a more interesting job are core attributes related to this perspective.

## **Methodology**

Primary data for this research has been collected through in-depth interviews followed a semi structured questionnaire and observation method. Sample size was 20 including Procurement officers, Administrative officers related to the procurement in the university, Project Coordinators and Activity Coordinators of the projects within the Sabaragamuwa University of Sri Lanka. Data has been collected using convenience sampling method. Gathered data has been analysed descriptively using Within-case Analysis. Accordingly, it has been provided detailed description of the selected case and then it has been elaborated the several themes within the case.

## **Discussion**

### **Electronic procurement usage prior to initiates the procurement activities**

There are two dimensions of procurement can be identified related to procurement in Sabaragamuwa University of Sri Lanka. Some procurement activities are focused to purchase for the purpose of functioning of the university. This dimension will be common for any of the public sector organization in Sri Lanka. But another category of

procurement is also available in government sector activities. The purpose of those procurement is developing the university. There are various development projects financed by World Bank or various grants are there to finance those university development projects. In this study, the term “procurement” refers both procurements related to general procurement of the university and university development projects.

Accordingly, there are some approvals and discussions to be conducted before the initiation of a development projects. The approval may be received from an external party to the university like World Bank, Asian Development Bank, voluntarily financing agency or the government.

Then the usual practice of the Sabaragamuwa University of Sri Lanka is physically attending such events and occasions and maintaining manual documents related to all the important discussions. In this phase telecommunication and letters were used to inform the event or meeting to participants. Most used methods to inform such meetings are email and registered post letters. Even though there is a possibility to use the novel technologies such as Skype, zoom etc. the university is still following the traditional methods of meeting without having any rational on behind.

#### **E-procurement usage in Bid document preparation stage**

The bidding document can be regarded as the care output of the Procurement Management process. This document is used when

requesting quotations from potential suppliers to purchase goods and services. This document consists of item list, price schedule and a detailed description of the products, constructions or services which is expected to be purchase or construct using this bidding document.

The preparation of bidding document can totally be done electronically. There is no need to maintain bidding documents manually. This is practiced by Sabaragamuwa University as well. At this stage it was evidenced that SUSL is following electronic procurement practices rather than any other stage in the procurement process.

#### **E-procurement usage in getting approval for bidding document**

Approval for bidding document mean the bidding document preparation committee should be recheck the Bidding document prepared and put their signature on the pages which consists the list of items which is going to be procure, specifications and the price schedule. The ordinary practice of SUSL is, firstly various resource persons belongs to the project team who have the knowledge regarding the items to be procure or works to be constructed, send the specifications to the relevant Project Assistant or the Project Coordinator via email. Then the Project Assistant accumulate all the specifications related to the certain procurement and prepare the bidding document. After that the hard copy of the bid document should be signed by the persons who have appointed to prepare the bidding document.

Specifications are exchanged electronically via email all the time. But the approval process takes considerable time because of the lectures of other appointed persons are not available at the university premises at the same day. Normally there are three to five persons appointed to prepare bidding documents and therefore, at least it takes three to five days and it is certainly an unnecessary delay. Therefore, there is no usage of electronic procurement practices at this stage at Sabaragamuwa University of Sri Lanka.

If it allows to use electronic signatures on bidding documents, after circulating the soft copy of the bidding document among the relevant persons they can put their electronic signature after checking the accuracy of the details in the bidding document. This method will ease the task and it would be better if the coordination part is done by the project assistant or procurement assistant.

It is needed to maintain electronic procurement files related to each procurement. Finally, this approved bidding document can be kept within that electronic file. Once the Project Assistant sent that bidding document to the centralized office which is handling university procurement. But there is no such a practice at SUSL.

#### **Appointing members for Bid Opening Committee and Technical Evaluation Committee (TEC)**

While the approval for bidding document is going on it is possible to appoint members for bid opening and Technical Evaluation Committee

which is commonly known as TEC. Normally, these committees are appointed by the Vice Chancellor and there is a manual procedure. But it is possible and easy to appoint this committee electronically. Then the appointed soft copy can directly be sent to the centralized office which is handling university procurement to further proceed. Or else, a clerical person must go to the Vice Chancellors' office to submit procurement files for appointing committees and again go to Vice Chancellors' office to collect the appointed files. Such unnecessary time and energy wastage can be minimized by using e-procurement.

#### **E-procurement usage in Invitation for Quotation**

Initially it was invited quotations only via registered post. But when it has to re-invite quotations due to receive no quotations at first time or if the respective approving committee does not give the approval for TEC report, quotations were recalled via email. That practice indicates that there are no hard and fast rules that it must be invited quotations only from registered post. But, SUSL is not much familiar with e-procurement practices in this stage. Procurement is the procuring or buying of goods, services or construction work through electronic medium. E-bidding is the process of bidding through electronic medium. But such electronic bidding system cannot be visible at SUSL.

#### **E-procurement usage in bid opening**

In the normal practice, quotations are received time to time within the allocated period. Bid opening process



is totally manual in Sabaragamuwa University of Sri Lanka. But, bid opening process is totally run by electronic mode in the countries like India. For an instance, India has an electronic procurement hub called “Central Public Procurement Portal” and there is a comprehensive and very confidential method of bid opening. E-bidders can bid for procurement and bid opening occurs online. Summary of the bid opening also visible at the same time and it is very transparent method as well. E-procurement software is the enterprise system that automates and integrates the spectrum of a organization's procurement cycle. A good solution for e-procurement software will increase the transparency of spending and approval processes.

### **E-procurement usage in preparation of Technical Evaluation Committee (TEC) Report**

After opening the bids, the next task is to send the opened bids to Technical Evaluation Committee for evaluating. Once opened the bids, bid opening minutes are preparing. In this e-procurement process, it will be easy to prepare bid opening minutes simultaneously even the bid opening is going on. Zoom technology will be the simplest method available and well known by the people after Covid 19 pandemic. If SUSL has an electronic procurement portal the bid opening minutes will be generate by automatically. But, after the bid opening, at least it takes three to five days to finish the preparation of bid opening minutes and submit the

relevant documents for TEC to evaluate.

The normal practice at SUSL is the project assistant collect all the related documents to evaluate bids and submit to the chairman of TEC committee. The person who has appointed as the chairman of TEC may not available all the time at university premises. Some project Assistants have experienced that, to submit the documents to the chairman of TEC takes more than a week. Any of the electronic systems are not practicing by SUSL at this stage as well.

### **Approval for TEC report**

Just like in other stages, approval for TEC report also has become manual at SUSL. Approval for TEC report is granted by Department Procurement Committee (DPC), Minor Procurement Committee (MPC) or Regional Procurement Committee (RPC). There is not any electronic procurement methods are following by this phase by SUSL. But, if it uses the electronic procurement methods it is possible to send the electronic version of the TEC report prepared by Technical Evaluation Committee to the relevant procurement committee (DPC, MPC or RPC) by as email within just a second. Then the approval will also be received within a shorter period and the procurement process will be speedup.

### **Placing Purchasing Orders**

Once received the approval for the report prepared by technical evaluation Committee SUSL is writing purchase orders manually and send to the relevant suppliers by

registered post. It takes relevant days to reach the purchase order to suppliers and sometimes it further delay due to delays in the post. But if the purchase order sends to the relevant supplier via email the same expected thing happens and only difference is it takes only two seconds to reach the purchasing order to the supplier. Gradually SUSL has been adopted to electronic systems and as the current practice, before send the purchasing order by registered post, scanned purchasing order will be sent to the relevant supplier.

### **Findings and Conclusion**

According to the findings of this study, it was revealed that Sabaragamuwa University of Sri Lanka is following traditional ways to conduct their procurement activities. Sabaragamuwa University of Sri Lanka is relying on manual

procurement processes and practices although inefficiencies are there. Although some procurement officers are aware of the inefficiencies, they have become muted due to the fear of red tape bureaucracy embedded with the university system. Almost all the officers from top to bottom are concerning about their job security and anyone will not go to break the existing rules and procedures revealing the drawbacks or inefficiencies of the system. This study also evidenced that the level of e-procurement usage is low at SUSL. According to the view of the respondents SUSL is gradually engaging with the e-procurement practices

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