WCIT 2010

The impact of dynamic purchasing systems in the electronic public procurement processes

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Abstract

Traditional procurement processes to shorten the decision-making mechanisms and processes to optimise transparent, integrated, and most importantly, the operational costs in order to reduce the development of information and communication technologies, public procurement processes using e-procurement concept becomes more and more prevalent started. Alignment in the name of our country's European Union membership by the European Parliament and Council Directive No. 2004/18 in goods, services and works contracts have included the need to perform electronically. Directives, and electronic auctions, dynamic purchasing systems and new applications such as framework agreements have come. In this study, the Dynamic Purchasing System (DPS), the tender which the institution's needs quickly to meet the time limited, the validity period of being selected met the criteria and specifications comply with the shows that submits a bid that all economic operators which are open to a completely electronic process. However, the tender notice, invitation to bid and evaluation of suppliers, such as the ever-changing dynamic process in which the execution of a process completely electronic environment brings with it some risk factors. Important milestone in the process of electronic procurement in the public sector which will create one of these systems will be provided through the active participation of small businesses and will create a more competitive environment.

The purpose of this study, the DPS can be implemented in Turkey could become a critical success factor to be considered for the review is to create awareness for the public and private sectors. These objectives to reach the other country models examined in our country studies will be compared, as well as the application process depends on the sensitivity as a needed improvement of the system all the security elements of structuring processes will be discussed.

Keywords: Public Procurement, e-Government, e-Public Procurement, Dynamic Purchasing System

1. Introduction

Public procurement is the purchasing of public goods, services and public works by government agencies and public authorities. Public procurement comprises a very large percentage of a governments’ economy, so it is important to ensure government agencies are implementing the most cost-effective and sensible methods to provide public services (1).

The process of procurement is limited in a strict way. The system of government procurement requires high level of flexible, agility and adaptability because it is knowledge denseness and the process should be changed frequently.

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that its framework can fit the demands of e-Government Procurement commendably. Electronic public procurement helps the government to obtain better working equipment or services in a relative low price and improve the working efficiency and reduce financial expend. All the researchers and works have been done are just for one purpose is that makes easier, more efficient to optimise government official procurement process.

In the last years, public and private procurement players set up several initiatives and networks, aimed at sharing best procurement practices. Some examples are the International Federation of Purchasing and Materials Management (IFPMM)\(^{(2)}\), the International Purchasing and Supply Education and Research Association (IPSERA)\(^{(3)}\), the Public Procurement Network (PPN)\(^{(4)}\) and The European Union (EU) Public Procurement Learning Lab (EU Lab)\(^{(5)}\). Today, procurement strategies are more a part of a public organization’s success than ever before. Technologies give governments the opportunity to truly make purchasing more efficient and inexpensive. Public e-procurement would be the next big thing and that it would significantly alter the way governments worked together with private sector in the future. As a result of these changes, more governments need to put in place some best practices that can guide their purchasing decisions and that can help them make their procurement processes a success.

The Turkish government has long been characterized as one that often provided inferior services to its citizens is cause of corruption in the government and poor regulatory oversight. By enacting certain regulations, the government has attempted to reform procurement services through a series of legal amendments governing how government agencies operate. By imposing new guidelines the government hoped to have a greater influence over how government agencies spend their money.

In this article, first chapter is mentioned about general means of electronic public procurement and the benefits. The next part is given the literature review of dynamic purchasing systems and survey results that is applied to measure of the readiness status to the Turkish public and private organizations for the dynamic purchasing system usage. The final section is discussion and conclusion part.

**Electronic Public Procurement (E-PP)**

Information and communication technologies provide ways of drastically reducing different categories of transaction and communication costs. In that respect, the potential merit of various electronic procurement (EP) forms, such as electronic catalogue, dynamic auctions, intelligent agent applications seem largely undisputed suitability for not only private but also the public organizations with the challenges of assessing the purchasing requirements \(^{(6)}\).

Efficient procurement practices, both private and public play a key role in modern economies as they ensure reduction of wasteful activities. Achieving such efficiency is an ambitious task, as procurement faces numerous challenges, especially due to the market structure, the legal framework and the political environment that procurer’s face \(^{(7)}\).

Organizations need to have a handle on an extremely important aspect of their procurement that will be the last trading functionality available on our e-procurement platform. Unfortunately many companies and investors have failed to realize the promise of e-procurement. One procurement software vendor saw its stock fall from $330 per share to $2. That's an incredible plummet to say the least, but falling stock prices do not necessarily mean that e-procurement has tumbled off the business radar. Between 2002 and 2003, the e-procurement market actually grew by 12% and about 17% of businesses are planning to implement these programs in the near future. There are also ready a large number who are already using e-procurement. Despite this growth, one size fits all e-procurement strategies may not be right for every organizations.

Electronic public procurement development have been identified, best management practices associated with public and private sector that can be implemented beginning with the maintenance of relationships with suppliers. In the past, these relationships were almost nonexistent because buyers and sellers related to each other so confrontational. The selection of the product can be made on the basis of price, performance, and service offered criteria. All these elements and ingredients can take action and try to reduce these costs wherever possible. In addition, public organizations can continue to investigate these factors and to evaluate alternatives or modifications that might save the extra money.
According to these selection criteria, the public authorities chose the suppliers as they are needed or moved to a new supplier next. This type of approach is often too short to be effective. Instead, another alternative is to focus on the choice of a number of vendors who offer reasonable prices and quality materials, and establish a long term relationship with them. In this way, companies ensure their products and cannot give up the additional costs and delays in finding new suppliers all the time. There is a limited duration. There is need a completely electronic system which may be established by a contracting authority to purchase commonly used goods, works or services by integrated with much more suppliers in short time. For this reason, a dynamic purchasing system set up as a completely electronic system that is used to establish the system and award contracts under electronic public procurement platform.

**Dynamic Purchasing System**

A dynamic purchasing system is defined in article 1.6 of the Procurement Directive 2004/18/EC (8) that follow the chronology of a tender procedure and introduced modern purchasing techniques, such as dynamic purchasing systems and electronic auctions. Furthermore, there is a new obligation to weigh award criteria. Specific provisions on central purchasing bodies and references to environmental and social considerations are other innovations of the new legislation worth mentioning.

Dynamic purchasing system is a completely electronic process for making commonly used purchases which is limited in time and opens throughout its validity to any economic operator which satisfies the selection criteria and has submitted an indicative tender that complies with the specification. Such techniques help to increase competition and streamline public purchasing, particularly in terms of the savings in time and money which their use will allow.

There are three active players of the dynamic auctions are: the public administration (named as a buyer), the suppliers and the contract authority for platform owner which is offering the infrastructure and the technical support. In particular, contract authority is need for appropriate administrative structures at central level to ensure the key functions of policy-making, drafting of primary and secondary legislation, provision of operational tools, help-desk, monitoring and statistics as well as controls in a coherent manner for all areas related to public procurement.

Public Procurement Authority (PPA), also defines Turkish contract authority, work together with the buyer and according to the relevant law (9), the auction rules such as durations, supplier qualifications or other issues for determining the purchasing criteria. All the potentially eligible suppliers will be noticed about the incoming dynamic purchases and they will provide the necessary documentation to be qualified and admitted to the auction by using PPA electronic platform as seeing below figure (10).

**Figure 1: Public Procurement Notice Management System**
They will automatically receive ID and password to access the portal and enter the dynamic auction area. At the defined date and time, PPA and the buyer kick off the auction and they will monitor the bidding dynamics as the suppliers make their offers. Once the auction is closed as the defined duration time expires, the winner is automatically notified and all the participating suppliers receive the final ranking.

If the problem is too severe, cannot be fixed in a timely manner, or poses too great of a risk, the contract authority have to stop doing purchasing with the supplier. This means that the buyer should carefully find an alternative source of supply and, if possible, reduce its reliance on the supplier in question. Once there is sudden drop in supplier performance or a downward trend, it is depend on many factors. These include the supplier's past performance, level of current performance, strategic importance, possible damages, and overall risk. The dynamic purchasing system development seeks to identify and mitigate risks in an attempt to boost overall profitability. It often involves performance assessments, supplier scorecards, periodic reviews of supplier data, and supplier development also involves software, systems, processes, and people. It helps an orientation that is geared toward improving the performance of the supply base and buying well.

Within the framework of electronic procurement, dynamic purchasing systems also constitute a significant innovation. By these means, contracting entities can ensure greater competition in the procurement process as the system is open for bidding to every economic operator that satisfies prequalification selection criteria. The main difference with framework agreements is that any bidder is allowed to join the system at any time. The increased level of competition and the flexibility of the procedure explain the success of this tool that is expected to deliver significant value for money when used appropriately (11).

Soon after the entry into force of the two Directives in 2004, the majority of member states declared their intention to adopt dynamic purchasing systems. This tendency strongly reflects the support of national public administrations for a more effective and economic management of public procurement through electronic means. Nonetheless, national states transposed the Directives in accordance with pre-existing national rules and thus it might be regulated differently across the countries.

In Turkey, there is not yet any implementation for dynamic purchasing system. For this reason, authors tried to measure that Turkish government authorities and private sector are ready for dynamic purchasing system. The survey prepared as web page and contained 6 questions and distributed 150 public and private employees using their e-mail address. There are the number of 93 people were answered online during 2 mounts. According to the results, dynamic purchasing systems, the public and private sector employees are not knowledgeable. Private sector workers who participated in the survey, 68% are not knowledgeable about the subject. Employees in the public sector in 76% of those surveyed do not have information about DPS. The authors asked public and private sector employees that “which area is useful as a more efficient factor if implement DPS”. Public employees think that this system would increase competition. Private sector employees are also thought it would be beneficial in terms of cost.

Viewed from this angle, E-PP is an essential business function of government. Despite the importance of effective procurement practices to government efficiency, very little is known about what dynamic purchasing systems do in practice, and how procurement practices affect government spending. This paper reports the results of a dynamic purchasing system readiness survey by using public and private in Turkey. To examine the potential implementation awareness from adoption of electronic public procurement platform users, the authors estimate performance measurement for supplies, and monitoring equipment spending. Results indicate that the use of dynamic purchasing calendars, central warehouses platform, and tenderers lists are associated with significant time and cost savings.

Conclusion

In view of the rapid expansion of dynamic purchasing systems, appropriate rules should now be introduced to enable contracting authorities to take full advantage of the possibilities afforded by these systems. It is necessary to define a completely electronic dynamic purchasing system for commonly used purchases, and lay down specific rules for setting up and operating such a system in order to ensure the fair treatment. This purchasing technique allows the contracting authority, through the establishment of a list of tenderers already selected and the opportunity given to new tenderers to take part, to have a particularly broad range of tenders as a result of the electronic facilities available, and hence to ensure optimum use of public funds through broad competition.
Also, dynamic purchasing systems will be a powerful benchmarking tool both for the public administrations, who can use it to tune their spending, forecasting and allocating their budgets and for the suppliers, who can understand what their offer has to be to be distinctive and appealing. Unfortunately, many government organizations simply do not have a clear understanding of what these cost factors are, and it paralyses their ability to develop best practices from the beginning. The contracting authority shall inform the tenderer referred to in the first subparagraph at the earliest possible opportunity of its admittance to the dynamic purchasing system or of the rejection of its indicative tender.

For successful organizing of the public dynamic purchasing systems with following features:

- Common procurement system for dynamic purchasing of Goods
- Better monitoring and control for suppliers by developing performance measurement system, there is a mechanism in place to periodically collect performance data from suppliers, the next step is review and analyze the performance data.
- More real time information to connect with more public authorities, and notification of tenderers.
- Set up tight monitoring system to control on timely of tenderers qualification documents appropriate.
- Improved accountability and reduce response time.

The next best practice that will help dynamic purchasing development a successful electronic procurement strategy is strong support from the government leadership. Many of these managers take a completely hands-off approach, but their involvement can be helpful. They have to convince the lower level managers and employees that they are truly committed to the endeavour. No one wants to spend months learning new technology and adapting to a new approach to doing business if it is simply going to be changed at a moment's notice.

References
2 The IFPMM is the union of 42 National and Regional Purchasing Associations worldwide for public and private organizations.
3 IPSERA (International Purchasing and Supply Education and Research Association) is a multi-disciplinary network of academics and practitioners dedicated to the development of knowledge concerning Purchasing and Supply Management.
4 The PPN (Public Procurement Network) is an informal European-wide co-operation network in the field of public procurement and was established at a meeting, which took place in Copenhagen on January 31, 2003. www.publicprocurementnetwork.org
5 EU Lab (European Union Public Procurement Learning Lab) is not only a generic network on the field of public procurement, but also has the option to create a group in a confidential environment.
8 The award of public contracts (public works, public supply and public service contracts) is coordinated by two specific directives: directive 2004/18/EC regarding the so-called "traditional contracting authorities" (the “classical sector”) and directive 2004/17/EC concerning the authorities and entities operating in the fields of water, energy, transport and postal services (the “utility sector”).
9 Public Procurement Law (PPL, No:4734 2002 as amended by 5812 of 2008)