A General Study for Role of the Quality in the E-Procurement Process

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ABSTRACT

This paper reports the current state of e-procurement technologies and related issues. It analyzes how companies are moving quick into these technologies, how experimentation is occurring to learn about the business opportunities that may emerge through these technologies, the dangers and benefits associated with them, and the expected evolution of e-procurement technologies in the near future. Predictions few years back indicated that e-procurement technologies would become exponentially over the main portion of the decade. However, these expectations have not been met. Current e-procurement technologies are in their developmental earliest stages and an overwhelming design is as yet unavailable. The result of our survey indicates that the last equilibrium may include several technologies, each one serving a different segment of the market. This variety of arrangements is likely to further delay the progress of the business to its development stage. Companies are moving toward e-procurement technologies with very different strategies based upon the perceived dangers and benefits associated with the technology and their competitive position and environment. We identify two fundamental types of companies. The principal type is moving aggressively to receive e-procurement technologies, frequently experimenting with different arrangements. The second type embraces a more conservative strategy by selectively experimenting, regularly with one technology. This latter gathering relies on these limited experiences to provide the capabilities to move rapidly into the technology as a predominant design emerges. The survey results suggest that e-procurement technologies will become an imperative piece of inventory network management and that the rate of reception will accelerate as aggressive adopters share their experiences and perceptions of generally safe.

Keywords : E Procured Software, E- Security, E- Procured Technology, Quality Scenario

I. INTRODUCTION

The Adoption and Use of the E-Procurement Technology Models

Online procurement (e-procurement) has been identified as the "most imperative element of e-business operational excellence for large corporations"[1].

An e-procurement technology is defined as any technology designed to facilitate the obtaining of products by a commercial or a government association over the Internet. E-procurement technologies including e-procurement software, B2B (business-to-business) barters, B2B market exchanges, and acquiring consortia are focused on computerizing work processes, combining and leveraging authoritative spending power, and identifying new sourcing opportunities through the Internet.

E-procurement software uses the latest method for development, i.e. Object Oriented Software, Agile

approach, Fuzzy logic. Future developments are expected to extend these technology models to create collaborative production network management tools [2][3].

Of course, e-procurement technologies have been credited with giving noteworthy benefits to companies who adventure into them. These advantages include reducing administrative costs, shortening the order fulfilment cycle time, lowering inventory levels and the price paid for products, and preparing associations for increased technological joint effort and arranging with business partners [4].

The relevance of these advantages suggested a quick movement from customary to e-based procurement models. Likewise, only a few years back market examiners predicted that Internet B2B exchanges a subset of e-procurement technologies would increase from approximately $600 billion out of 2000 to over $6.3 trillion by 2004 [4].

Unfortunately, this tremendous expected development rate has been revised downwards. Recent market observations indicate that the appropriation and integration of e-procurement technologies into the business mainstream is happening at a much slower than expected pace. One reason is the verifiable affiliation that investors have made between e-procurement [3][5].

Technologies and the business-to-consumer (B2C) models responsible for the Internet bubble. More often, the log jam has been associated with technology-related issues.

A recent report by the Conference Board focuses to problems in the implementation side and concludes that "associations are discovering (e-procurement) implementation more complex, more expensive, and more time expending than they initially envisioned" and that advisors have been "widely criticized for overstating the business case for e-procurement"[5][6].

Companies were bouncing onto the e-procurement temporary fad without completely understanding the inter organizational cooperation and network effects underlying these technology models, the investment required to move the correct data from suppliers to employees, and the complexities of integrating these technologies with existing Enterprise Resource Planning systems[6].

In this paper we present the results of a research project undertaken to outline practices of e-procurement technologies, understand the drivers benefits and dangers of their reception, and project the expected evolution of these technologies in the near future.

The discoveries are based on a survey administered to North American companies supplemented by extensive talks with industry experts and obtaining managers who are utilizing e-procurement technologies.

The examination indicates that the slower-than-predicted development isn't the consequence of a single problem. Rather, e-procurement technologies are still in their early stages of the conventional technology S-curve, in which alternative technology models are quickly evolving and users are as yet dealing with the triumphant model. This process is especially complex because the ultimate outcome may well be that different market segments will receive different technology arrangements. Because a well-defined business process is as yet unavailable, companies are utilizing different strategies to approach these technologies[4].Some companies' aggressive adopters are investing critical resources to experiment with alternative arrangements with the expectation of identifying the technological winner and making an interpretation of this leadership position into competitive advantage. Other companies conservative adopters are taking a "sit back and watch" approach. These companies are investing selectively in a reduced set of technology alternatives with the expectation of learning enough

to be ready to move when a winner emerges. Regardless of the current strategy of an organization, the overall consensus is that e-procurement technologies will become an essential management device to enhance the performance of supply chains.

The current concentrate on indirect products as a method for experimenting with the technology is expected to evolve into procurement processes that facilitate inventory management and the purchase of capital merchandise. The real benefits and dangers of e-procurement technologies and managers' evolving perceptions about these benefits and dangers will determine the speed at which the technology moves from its developmental early stages to the selection and development stages [9][8]. However, the perceived dangers that are keeping down companies from investing in e-procurement technologies are numerous.

Notwithstanding technology-related dangers, there are dangers associated with the integration of these technologies with existing data systems, with the business model that these technologies impose on supplier-customer relations, and with the security and control mechanisms required to insure their appropriate use [7].

The evidence presented in this paper should enable finance, bookkeeping, data technology, acquiring, and best managers to better prepare and plan for the future of e-procurement software in their associations.

II. METHODS AND MATERIAL

1. Parts of E Procurement System

E-procurement technologies including E-Procurement Software, B2B (business-to-business) barters, e-security and any mechanism that helps to improve any of it can help the end user to get the highly accurate quality process.

Figure 1. Parts of the E-Procurement System

2. Premises

The following premises have been considered when the proposed framework is being used to quantify security using complexity attributes which having impacts on security.

- The identified factors of e-procurement process e.g. effected software, quality issues of software, security issues and platform dependency covers all aspects of e-procured approach.
- The identified factors having impact on e-procurement process and its behaviour are best suited in latest technologies in software terms.
- An integrated approach to measurement of e-procured software at different stages of Software life Cycle Process is feasible.
- A common set of features for desired values may be used to form the basis for its development.

3. Generic Guidelines

The guidelines before following the process to assessment of e-procurement process be listed as follows:

- Assure compliance/observance to collect the common set of essential and desirable features of proposed methodology.
- Identify and persist all security and quality factors to be measured in SDLC perspective.
- The values of attributes must be persisting for quantification and designing process of e-procurement process.

4. Benefits in Practicing the E-Procurement System

Receiving an e-procurement system has conveyed great benefits to the government and it is additionally another path for the government to save

on the management cost and at the same time become more efficient in the procurement process of products online. The primary advantages e-procurement can deliver include cost reduction, process reorganization, improved contract fulfilment and increased spending under management and numerous other benefits [10]. The huge cost sparing of e-procurement to the government is in the reduction of cost and effort of processing the purchase order which can be manipulated electronically, and additionally the marked reduction in inventory costs and decreased order fulfilment time. Previous researchers identified and measured four types of cost investment funds from utilizing the e-procurement system, namely order cost, administrative cost, lead-time order cost, and opportunity cost of capital [11]. Meanwhile, other researchers concluded that rehearsing e-procurement will provide quality offering, efficient timeliness, cost sparing, limiting effort in working together, reduce monetary dangers and technical dangers, lastly increase supplier competition, which would lead to save cost of purchasing merchandise or services at high prices [11]. Furthermore, it was stated previously that offering for open sector projects is the best place to practice e-procurement of products and ventures, and this is because of the high transparency of data resulting from electronic offering [12].

III. RESULTS AND DISCUSSION

Challenges in the E-Procurement Implementation

The essential challenges of E-procurement systems are to deliver a quality software because these systems are completely relay on the internet technology and related e software's like ERP, CRM, etc [7]. Second ever of challenges is that to provide internal and additionally external security to the stream of information and data of the E-Procurement System. Relatively recent development in the business application area and the absence of benchmark has enabled reference models to be developed, especially in new firms that are simply beginning to learn of these systems' functionalities and their uses in their associations. Based on previous researchers, there are factors adding to challenges in the implementation of e-procurement, for example, technology, infrastructure and legislation, environment; besides, resource limitations, and hierarchical and management characteristics are additionally contributing elements to the success, or otherwise, of an e-procurement implementation. External elements from the business, market, government, and technological change are beyond the control of associations. However, these barriers can be minimized and even completely mitigated through careful arranging and research [11].

The technology barriers to suppliers include understanding and commitment to specialist software and the start-up fee required by the vendors that is normally beyond the budgetary capabilities of SMEs or that they would prefer not to focus on such a costly system. The declared help of such systems is generally from the larger companies that would benefit more due to the large volume of trade and numerous exchanges. The usefulness and security issues of the system are real concerns for potential adopters. The wide-spread use of e-procurement systems likewise depends on the accessibility of supporting infrastructures, for example, sufficient broadband coverage. Inadequacies in government policies and legislation are areas to be highlighted in the system.

The standard procedure for governmental tendering process which mandates the purchasing of printed tender documents in physical offices by interested parties in person is a decent example. This precludes the use of e-tendering system and presents a huge setback for the government attempting to establish and electronic government system. Absence of principles in the development of e-procurement systems results in users of one system being unable to communicate electronically with users of other different systems, creating a diverse yet fragmented e-procurement environment[11].

IV. CONCLUSION

E-procurement is more than only a system for making purchases online. The system has been implemented to achieve critical benefits, for example, cost investment funds and increased efficiency. So to provide the quality software is an essential issue promotion security mechanism will provide the added advantages to the e-procurement system.

Other advantages in applying an e-procurement system are a faster government procurement process and higher transparency compared to conventional procurement and tendering methods

The system helps government agencies in settling on more informed and accurate decisions through giving easy access and relevant data about each offer and competitors. Granting process would be very organized and precise because the decision-production committees will have better knowledge about the offers and they could get better evaluating which would ultimately save a considerable measure of unnecessary expenses.

It is critical for the government to give careful consideration on the accessibility of infrastructure, for example, IT and ICT, for a better e-procurement implementation. ICT based software are imperative to help increase effectiveness and efficiency of e procurement process. Business interchanges, business process, cost reduction and cycle time, explore new markets and business opportunities, increase transparency in contracts, and overall competitiveness, are major and pertinent areas to be given more concentration in enhancing the e-procurement system in government agencies.

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