The Study of E-Procurement System to Suppliers in Penang and Kedah Area

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ABSTRACT

Through greater use of information technology (IT), the Government of Malaysia hopes to create an efficient administration providing better and faster service to the people, thus bringing a distinctive change from the traditional practice. Electronic Government will improve both on how government operates internally as well as how it delivers services to the people of Malaysia. Thus, to realize this vision, it requires a comprehensive development and implementative programmes, which cover all aspects of government activities. Five pilot applications for electronic government have been prioritized, and one of them is the Electronic Procurement. E-procurement aims to re-engineer, automate and transform the current procurement system by delivering cost savings and a faster turnaround time by enabling the government to become a "Smart Buyer".

1.0 LITERATURE REVIEW

E-procurement is the exchange of information across electronic networks, at all stages in the supply chain, whether within organization, between businesses or between businesses and consumers. (E.P.G. Strategy Group). E-procurement is the business-to-business purchase and sale of supplies and services over the Internet. An important part of many business-to-business sites, e-procurement is also sometimes referred to by other terms, such as supplier exchange. Typically, e-procurement web sites allow qualified and registered users to look for buyers or sellers of goods and services. Depending on the approach, buyers or sellers may specify prices or invite bids. Transactions can be initiated and completed on line. Ongoing purchases may qualify customers for volume discounts or special offers.

The purchasing and supplying (procurement) activities of organizations is one which spans both internal service and B2B services. This is an important activity found in all organizations, public, private, government and charities and can be responsible for a large amount of spending. (Croom and Johnston, 2003). Such spending on, for example, materials components, facilities, subcontract capacity, IT equipment and supplies, consumables, stationery, travel and insurance can constitute a significant amount of money.

Procurement is traditionally an internal service provided by a dedicated team of professionals. It typically operates at the interface between the organization's external supplier marketplace and the organization's operational processes. Procurement has many of the characteristics of the marketing function though it faces the other direction in the supply chain (Croom and Johnston, 2003). Procurement is usually responsible for the identification of (internal) customer's needs, translation of those needs into specifications, management of the delivery goods and services and an assessment of the (internal) customer's satisfaction with those goods and services. The other elements of the process involve communication with suppliers, sourcing, requests for tenders, price negotiation, ordering, receipt and invoicing.

Supply chain management involves the procurement of materials that would be transformed to finish items for delivery to customers. The purchasing function has always been a major cost in operations and one area that is always looked at is to control cost. The advent of the Internet technology has made it easier to manage procurement, hence the emergence of the term e-procurement. E-procurement can bee seen as crucial function in the supply chain network. It is a user-friendly and an Internet-based purchasing function that enables the electronic processing of orders. E-procurement is an integral part of any e-business or e-commerce operation (Madu and Madu, 2003).

Carbone (1997) identified some of the key characteristics of e-procurement as follows :

- Reduction in transaction costs
- Quicker and more accurate transaction purchasing
- Elimination of maverick buying
- Reduced inventory
- Improved order tracking
- Improved information management
- Increased contract compliance
- Lower prices
- Increased employee satisfaction

E-procurement is able to achieve these characteristics by using a solution platform that will have access to consolidated information on the supply chain network. This makes it easier to evaluate different suppliers, products and services through online catalog information. It also offers the opportunity the comparative product shopping so buyers can in fact evaluate product features, benefits and price on line. It is clear that by maintaining a suppliers' catalog on line, comparative assessment of product features and costs can be made promptly. This in effect helps

eliminate maverick buying and the inefficiency of paper-based purchase processing and improves the tracking and controlling of purchases (Madu and Madu, 2003).

E- procurement also enhances payment methods and order confirmations (Madu and Madu, 2003). Several of the larger corporations have reported significant gains from the implementation of e-procurement solutions. This list includes IBM, British Telecoms and Microsoft. Many of their savings are in the reduction in the average transaction costs and the average cycle time. The importance of this to quality is that any function that adds value to the customer ultimately increases customer satisfaction makes the organization more efficient and productive and improves an organization's processes, thus making it easier for the organization to continue to deliver more value to its customers. These cost reductions imply also that the organization is able to transfer some of the costs savings to the customer, implying that more value is delivered at a lesser costs.

Prasad Hedge, a partner with Denali Consulting commented that E-procurement used to be about dealing with low value, and repeatable items that clog up the purchasing function. However, over the past couple of years, the tools have started to become more collaborative and not just transactional. Troy Gazette, the director of IT platform strategies for MSX, argue that the e-procurement is like the electronic equivalent of a bidding conference, using the Web to interact with a greater number of suppliers. Answers to suppliers' questions can be broadcast to the entire pool of vendors, or not, depending on the automotive customer's own preferences.

Troy Gazette also added that one of the beauties of optimization in e-procurement system is that it frees both buyers and sellers from the straitjackets of fixed bundles of goods or services against which bids are solicited. That means that online buyers and sellers can now do something they once couldn't. Sellers can bid for selected parts of lots, or include in their offering non-standard terms such as volume discounts, extended price validities or other goodies not explicitly covered by the bidding terms. Buyers, for their part, can evaluate those bonuses. It doesn't sound too difficult, but in practice, disentangling the merits of a dozen suppliers' different bids is surprisingly challenging, which is why companies have usually opted to enforce standardization in the first place.

Christa Degnan, a senior analyst at Aberdeen Group in Boston, says purchased goods and services are often the largest expenditure at many companies. She estimated that for every dollar a company earns in revenue, 50 cents to 55 cents is spent on indirect goods and services, things like office supplies and computer equipment. That half dollar represents an opportunity, by driving costs out of the purchasing process, companies can increase profits without having to sell more goods. Automating the procurement process can, in theory, reduce unauthorized spending, slash administrative costs and enable companies to better manage purchasing by analyzing spending patterns. In fact, Degnan cites research showing that the average cost for processing a purchase order manually is $114 per purchase order. By automating that procedure, the cost goes down to an average of $31.50 per purchase order, she says. In terms of time, e-procurement drives days out of the process, from just over a week to two days, Degnan adds. And unauthorized, or maverick, spending drops by 51%.

Benchmark Research reports that 63% of high-performing companies (in the US, the UK and Germany) have saved between 10% and 50% with e-procurement solutions up to the beginning of 2002. Companies can also save up to 20% on purchasing costs through an on-line e-procurement system by tracking purchases, consolidating suppliers and negotiating better discounts. The OECD estimates larger companies with a turnover above $NZ500 million spend $US75 to $US150 on processing any given purchase. Whilst New Zealand has mainly smaller companies, it is clear that significant cost savings can be achieved by the majority of small, medium and large organizations.

Motorola is one example of company that is using the e-procurement system. Motorola has been using Ariba's e-procurement software since 1999. It has also conducted e-RFPs for more than five years and e-auctions for more than a year. As of March 2002, Motorola has more than 21,500 users representing 309 locations in 19 countries. The company has 697 internally hosted catalogs, which include a total of 650,000 items. For e-RFPS, 60% to 70% of the sourcing spending is performed online. For e-auctions, it's 10% to 15%. More than 80% of e requisitioning is done online, says Robert K. Harlan, the director of Internet negotiations for Motorola. In 2001, Motorola saved $126 million using e-requisitioning. Harlan says that the ROI on e-auctions in particular "has been huge, 50 times the cost of the project. Motorola used Ariba to process more than 160,000 purchase orders in 2001.

Besides the huge benefits of the e-procurement system, there are still some drawbacks in the system. In October 2001, Forrester Research, Inc has conducted a research base on 50 global 3,500 companies. Forrester report titled "E-procurement Applications," companies reported four types of problems with e-procurement projects:
1. **Integration** – 30% responded that back-end system integration is a bear.
2. **Training/change management** - User expectations/change management can be difficult. Thirty-two percent of those interviewed

for the Forrester study said that they wrestled with getting employees to use the new software. "It's not just about technology," says Frances Howarth, the research director of e-business at Aberdeen. "Change management is an essential cornerstone of a good e-procurement implementation."

3. **Supplier relationship management** - Suppliers don't always want to get on board. This is a surprise to many companies, but 26% of the Forrester respondents reported being blindsided by their suppliers' reluctance to do their part of an e-procurement project.

4. **Catalog management** - Content management is tough. Internally hosting electronic catalogs can be a cumbersome process, 10% of survey respondents said.

2.0 INTRODUCTION

E-procurement in Malaysia is a leading e-Government Flagship Application project developed under the Multimedia Super Corridor (MSC) initiative and is developed, implemented and managed by Commerce Dot Com Sdn Bhd in collaboration with the Finance Ministry. E-procurement is the nation's unique state-of-the-art electronic procurement system for Government-to-Business (G2B) exchanges set to streamline processes for increased efficiency and productivity. E-procurement is an end-to-end electronic government system that enables suppliers to sell their products and services to the government via the Internet. E-procurement provides a platform for business communities to learn how to do business online, initially with the government and in future with global clients and customers. The system was also aimed at transforming the nation's "bureaucracy-centered" government to a "citizen-centered" one.

The new procurement system enables ministries, agencies and departments to electronically select items to be procured from the desktop, initiate an electronic approval process and create, submit and receive purchase orders, delivery orders and other related documents electronically. In line with the directive, government suppliers must have the proper information communications technology (ICT) infrastructure and be e-procurement ready to gain access to the government's procurement system. To do this, suppliers must submit electronic catalogues to e-procurement. These catalogues are what the end buyer, in this case, the Government, sees when browsing through the different supplies and services to compare their offerings and prices.

As reported in The Star on 28 October 2003, government suppliers in Malaysia are enjoying brisk sales as a result of e-procurement, the electronic procurement system developed under the Multimedia Super Corridor's e-government flagship application project. According to a statement issued at the e-procurement Consumer Day in Putrajaya, it was reported that some suppliers are enjoying more than 40% increase in sales, some even more than 100% through the system. The statement said that apart from higher sales, e-procurement had helped government suppliers run their businesses more effectively and efficiently and had helped to reduce their operating costs. Monthly transactions on e-procurement had risen to as high as RM12.61mil in September 2003 from RM305,584 in January 2003.

3.0 CRITICAL ISSUE

An understanding of the benefits of the e-procurement system is essential for the success of any business to survive in future. This study seeks to provide such an empirical base. The study attempted to measure the use of e-procurement system to suppliers in Penang and Kedah area, as part of their initiatives to e-commerce, and the benefits received behind the system. It is also important to promote the widespread adoption of e-Commerce in Malaysia.

4.0 AIMS OF THE RESEARCH

The objective of this paper is to identify the benefits and some limitations from the transparency created in the new system to the government and suppliers (large and small). The finding will be able to describe the important roles of E-procurement as a marketing tool in the business industries, and to suggest ways to overcome the limitation, in order to create business efficiency through the system.

5.0 METHODOLOGY

The methodology of this paper is based from data collection from secondary sources such as journals, reports, papers presented in conferences, statistics, and the Internet. Primary data could come from interviews and questionnaires with representatives of government agencies as well as suppliers in Penang and Kedah area, in order to gain their official opinion of the system.

6.0 FINDINGS

At present, 3,500 government agencies are using e-procurement while the number of suppliers registered with e-procurement totaled 44,000. As prescribed under the Treasury circular, government procurement would only be done with suppliers who are registered with e-procurement. Commerce Dot Com Sdn Bhd (CDC), has more than 35,000 government suppliers registered for e-procurement but only a mere 6,000 suppliers are active users at the moment.

Through e-procurement, suppliers would not only become accessible to procurement centers nationwide but they now automatically qualify as worldwide suppliers. With an increased base of potential buyers domestically and globally, suppliers are set to enjoy

enhanced revenue opportunities. Once a government procuring office is online to e-procurement, they can buy everything from pencils to office furniture to spare parts through the system. The only items that are not dealing with are items of national interest fighter planes, submarines and petroleum products. Everything else whether through a central contract (the whole government buying from a single contract), direct purchase (items costing up to RM100,000 that are not handled by the central contracts), quotations (items costing between RM101,000 and RM200,000) and tenders (items costing in excess of RM201,000) are to be purchased through the e-procurement system.

There are three modules under the e-procurement system, which consists of sales channel supplier registration, central contract and direct purchases. All of these modules already fully functional and are being used by the government in its procurement exercises. Currently, almost all suppliers to the government are registered with e-procurement. However, fewer than 18,000 electronic catalogue items have been created and uploaded into the e-procurement system. Electronic catalogues are a critical component of the e-procurement system and suppliers have been urged to place their product catalogues into the system to enable the government to source for their goods. With e-procurement, government buyers can now make more accurate procurement decisions, with immediate access to the latest product and pricing information available on-line thereby making smart purchases instantly.

Based on the study conducted, nearly half (51%) of the respondents companies who are using the e-procurement system in Penang and Kedah area are from the trading organization. 13% of the respondents are from the education sector and another 13% from the manufacturing organization. 25% of the balance respondents are operating as other type of organization. It was also found that 13% of the respondents' companies had been established less than a year. Another 38% of the companies had been established for more than one to two year's time. 13% of the respondents' companies were established between three to five years and the remaining 38% was established within five years.

It was found that majority of the respondents (75%), have been using the e-procurement system within one to two year's time. Another 25% of the respondents have been using the system for more than two years, and none of the respondent use the system less than a year. Most of the users of the system are in senior management position (38%). The middle management officer represents 36% of the user, while 26% of the respondents are from junior level management. None of the respondents are from the other position mentioned in the study.

The study also found that 25% of the respondents strongly agreed that e-procurement system is helping their organization in increasing the accessibility to become government supplier. 50% of the respondents still agreed with the effectiveness of the system, and only 25% of respondents did not agreed with the usefulness of the system. It was found that the companies that did not fully utilize using the system, would not get the benefits from the system.

According to Commerce Dot Com Sdn Bhd (CDC) chief executive Datuk Mohd Salleh Masduki, the e-procurement system is set to trigger the country's transformation to the K-Economy and promote the widespread adoption of e-Commerce in Malaysia. This is generally true. Based on the study conducted, 80% of the respondents strongly agreed that the system has become an entry point to their company for e-business. This is because the system enables the supplier's transition into e-business. However, only 20% of the respondents did not agree. However, 76% of them agreed that they could adopt and grasp the e-business more rapidly by using the system. It is no doubt that the e-procurement system had helped most of the companies in simplifying their selling process. 62% of the respondents agreed, 25% of respondents did not agree and 13% respondents did not give their comments on this matter.

As business operations become automated with e-procurement, suppliers would have simplified end-to-end processes and reduced administrative work resulting in immense savings in operational costs amidst shorter turnaround periods. 86% of the respondents agreed with this statement and 14% did not agreed. However, most of the respondents strongly agreed that the e-procurement system had improved their business planning and forecasting, and increase their companies' efficiencies. Further, 63% of the respondents found that the system had helped them in increasing their technical skill and made them becoming more knowledgeable workers. However, they did not feel that their motivation as an employee had increased through using the system.

E-procurement system also helps the company in the marketing activities. For example, advertising of goods and services are much cheaper and faster. 76% of the respondents agreed with this matters. However, almost all respondents (84%), agreed that the system provides a borderless advertising at a very low cost and helps in increasing their sales and tenders.

In the financial activities, the system has help in reducing the administrative and operational costs. According to Malaysian Administrative Modernization and Management Planning Unit Director-General Datin Nazariah Mohd Khalid, traders and suppliers will benefit from the transparency created in the new system and will also receive faster payments. However, only 38% of the

respondents agreed that they received payments faster than before. Another 38% of the respondents agreed that the system was able to generate more profit to their company.

Commerce Dot Com Sdn Bhd chief executive Datuk Mohd Salleh Masduki has told StarBiz that they believed the biggest challenge most suppliers faced is unfamiliarity with new technology. However, he hopes that in a rapidly evolving market whether global or domestic, measures have to be undertaken to maintain and increase the business communities competitive advantages. However, the study shows that majority of the respondents (72%), agreed that there are not many problem arises in order to be familiarize with the new technology. Only those employees who are above 40 years, find some difficulties to accept and familiarize with the technology. It was found that most of the respondents said that it is easy for the system to be accepted by younger generations and supported by the management in the organization.

Furthermore, study shows that only 25% of the respondents found that cost of implementing the system was a problem to their company. However, none of the respondents responded that the cost of implementing the system was the major problem that their company faced. Most of the respondents believed that by implementing the system, it would secure their employees' commitment. The registration procedure of the system was also found not to be the obstacle in implementing the system. However, some of the companies felt difficulties in training their employees to use the system at the starting stage.

7.0 RECOMMENDATIONS

It can be concluded from the study that most of the public are still not aware of the e-procurement system and its benefit. Only certain companies that involve with the government know about the system. Thus, action needs to be taken to provide more information to the public about the system, and make them familiarize with the new technology. More promotion should be done through seminars, conferences, or any other types of advertising tools. It is hope that by creating awareness among the public, they will realize the benefit of the system. For those employees who are lack of information technological knowledge, they can undergo trainings conducted by Commerce Dot Com to enhance their knowledge.

It is also found that even though the cost of implementing the system is considered expensive to some small companies, but the gain in return is much higher and valuable in terms of marketing the product and reducing the administrative cost. Generally, there will be high potential in Internet procurement for suppliers in Malaysia, and especially in Penang and Kedah areas. Thus, every suppliers should not miss this golden opportunity to become more

successful in their business. It is understand that it will be difficult for some Malaysians to rapidly adapt to the changes of the new system due to cultural inertia. However, in the long run, as Malaysia is working towards the net world, Malaysian's companies need to be ready for the challenges of the internet global market.

8.0 CONCLUSION

E-procurement means the Internet based access to the being and service offer of suppliers (e.g. in the form of on-line catalogs), whereby expiration processes and order times are shortened clearly by automation. E-procurement software may make it possible to automate some buying and selling process. Companies participating expect to be able to control parts of inventories more effectively, reduce purchasing agent overhead, and improve manufacturing cycles. E-procurement is expected to be integrated with the trend towards computerized supply chain management.

Medium to large size organizations and government departments regularly purchase the same products from a limited number of companies are ideal candidates for e-procurement. Due to multitude of benefits the system offers, more and more companies have adopts the e-procurement system. But real e-procurement, where it becomes a key part of the supply chain, will requires a lot more commitment from partners involved in managing more complex B2B relationships often requiring additional technologies and capabilities. This requires integration between the purchasing process and information residing in inventory systems, logistics systems, and other supplier back-end systems and often requires a great deal of customizing. Best of breed e-procurement systems should have the ability to locate suppliers, evaluate their offerings, and make comparisons. They also need to ensure that the proper contractual terms are applied to each order.

As being discussed earlier, many businesses have turn to e-procurement systems to control, simplify, and automate the purchase of goods and services from multiple suppliers. Traders and suppliers will benefit from the transparency created in the new system and will also receive faster payments. Other benefits include more accurate orders, fewer product returns and a shorter time needed due to electronic retrieval and submission of quotations.

The key to the system is to find the right products from the most right supplier at the right time and the best price as well as ensuring the responsiveness and service levels are appropriate for the business purchasing needs. As the e-procurement model matures, it is embracing more than simply office supplies and goods that might re required for maintenance and repair purposes. A much wider range of goods and services including raw materials, parts and components for manufacturing are included.

It is also believed that by doing business online and leveraging on the pervasive presence of the Internet, small and large-scale businesses have equal opportunity to gain competitive advantages. Some of the government suppliers conducting business via e-procurement were already reaping the benefits of doing business through the Internet. They were able to increase revenue opportunities with access to a wider base of buyers both international and locally. Government too can enjoy the benefit of e-procurement. Apart from saving money for the Government, e-procurement, which comes under the e-government service, will be able to replenish supplies quickly through electronic quotations. The system, when fully implemented, will help the government to become a smart buyer.

In this fast shrinking world, business face unprecedented opportunities. On the other hand, markets are expending due to economic growth and advances in technologies. The borderless marketing flagship application is developed on the premise that multimedia technology can be used by business more efficiently and serve customers better across different time zones, and effectively reach out to new customers. The use of the technology will eliminate the traditional berries of time, space and form. It is also true that it would take time for people to get used to and be comfortable around with this new technology. However, sooner or later, all suppliers will realize the significance of e-procurement system to ensure their survival in the business.

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