

ICT to Enhance Administrative Performance: A Case Study from Malaysia

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Abstract

Malaysia has achieved considerable steps in the use of ICT in administration since mid 80s. The vision of the Malaysian e-Government initiative which was formulated and launched in 1997 is to transform the public sector service delivery through the use of IT and multimedia. Since its start, there are eight projects implemented under the e-Government initiative flagship. This paper presents work done in one of these projects: e-Procurement (locally known as e-Perolehan) project. The aim of e-Perolehan project is to facilitate and improve government procurement besides to improve the quality of services provided within the Government-to-Business (G2B) setting. The paper briefly discusses how information and communication technologies were deployed to enhance the online procurement system in Malaysia.

Keywords: Electronic Government (e-Government), Information and Communications Technology (ICT), Electronic Procurement (e-Procurement)

1. Introduction

In the fast globalizing world economy of today, governments the world over are recognizing the importance of Information and Communications Technology (ICT) in development. An increasing number of Electronic Government (E-Government) initiatives are being employed to improve the delivery of public services to the people, and to tap the potential synergy from the interaction between new technologies, an educated population and an enabling environment for the attainment of knowledge-based economies (Ramlah et al., 2007; Murali et al., 2007; Lawson-Body & Miller, 2006; Akman et al., 2005; Ebrahim & Irani, 2005; Carter & Belanger, 2004; Ndou, 2004; Donnelly & McGruirk, 2003; Gupta & Jana, 2003; Heeks, R. 1998). The waves of E-Government are rising through public organizations and public administration across the world. More and more governments are using ICT especially Internet or web-based network, to provide services between government agencies and citizens, businesses, employees and other non-governmental agencies (Zaharah, 2007; Ndou, 2004; Donnelly & McGruirk, 2003; Fang, 2002).

The Malaysian government has envisioned a technologically advanced society and implicitly, a technologically enabled government through its Vision 2020 (Hazman et al., 2006; Maniam, 2005). The move towards a digital government is progressing slowly along the government-to-government (G2G) route and also along the government-to-citizen (G2C) and government-to-business (G2B) path. Alongside with the launching of the Multimedia Super Corridor (MSC) in 1996, the government has lined up several flagship e-Government projects namely project Management System, Human Resource Management Information System, e-Procurement and General Office Environment intended to transform the government from the paper-based, unintegrated islands of agencies and departments to an integrated and networked government.

This paper presents a case study on e-Perolehan in Malaysia, as part of the overall e-Government initiative launched in the country. The next section presents an overview of the e-Government landscape in Malaysia. Section three

presents a case study on the e-Perolehan initiatives and the last section present the pertinent challenges and issues within the e-Perolehan framework.

2. E-Government Landscape in Malaysia

The public sector in Malaysia is going through period of rapid change. The government's leading role in spearheading the surge forward into the information rich digital age has compelled the public sector to lead the way (MAMPU, 2003; 1997a; 1997b). The government of Malaysia launched Electronic Government with the aspiration to employ multimedia technologies to re-invent the way the government operates. E-Government will improve both how the government operates internally as well as how it delivers services to the people of Malaysia (Maniam et al., 2007). The E-Government implementation seeks to improve the convenience, accessibility and quality of interactions with citizens and businesses; simultaneously it will improve information flows and processes within government to improve the speed and quality of policy development, coordination and enforcement (Reddick, 2004; Moon, 2002; Layne & Lee, 2001).

The objectives of electronic government are to reinvent government and to catalyze MSC. Reinventing government would address the following areas:

- (1) Improving connectivity between all parties that deals with government be it public, inter government agencies, private companies, and foreign country interrelationship. This gives better access to government.
- (2) High quality services are expected to be assured.
- (3) Better processes or systems are also crucial in terms of improving the government services.
- (4) Create greater transparency and governance.
- (5) Empowering government officers in the administration as well as the implementation level.

The vision of E-Government is a vision for people in government, business and citizenry working together for the benefit of Malaysia and all of its citizens. The vision calls for reinventing government using multimedia and IT to improve productivity. It also seeks to create a collaborative environment that fosters the ongoing development of Malaysia's multimedia industry. There are eight projects launched to date under the E-Government Flagship since it was started in 1999. All this projects will use ICT and multimedia technologies to transform the way the government operates, coordination and enforcement. Table 1 summarizes the projects and its characteristics.

3. E-Perolehan Implementation

E-Perolehan is the new procurement system allows the Government ministries to electronically select items to be procured from the desktop, initiate an electronic approval process and also create, submit and receive purchase orders, delivery orders and other related documents electronically. Objectives of e-Perolehan are (Ratha, 2007):

- (1) To ensure best value for money for Government procurement
- (2) To ensure suppliers receive faster and more accurate payment
- (3) To ensure accountability and transparency in all Government procurement
- (4) To increase collaboration between the business sector and the Government

E-Perolehan deals with the Government to Business (G2B) relationship. On the supplier's side, e-Perolehan allows them to present their products on the World Wide Web (www), receive, manage and process purchase orders and receive payments from government agencies via the Internet. The supplier's product catalogue, which can be viewed from any desktop with a web browser. The supplier is able to submit quotations, obtain tender document and submit tender bid through e-Perolehan. E-Perolehan allows suppliers to register or renew their registration with the Ministry of Finance through the Internet. Suppliers are able to submit application, check application status and pay registration fees through e-Perolehan.

E-Perolehan will be the single point of registration for the suppliers. All approvals of the application for registration remain with the Registration Department of Ministry of Finance. Services available in the supplier registration module include the following (www.commercedc.com.my):

- (1) Supplier registration can be done online via the Internet using the e-Perolehan website
- (2) E-Perolehan routes all successful supplier applications for online approval by the relevant authority upon full submission of completed documents.
- (3) E-Perolehan facilitates generation of certificate for registered and successful supplier.
- (4) The supplier registration module supports online renewal of registration by the suppliers.
- (5) The supplier registration allows online application for registration of additional category or "bidang".

(6) E-Perolehan supports online suspension or termination of the supplier registration.

3.1E-Perolehan Business Model

The business model that is used for the implementation of e-Perolehan is an end-to-end model (MAMPU, 1997a). Procurement requires a complete integration of services from the buyer to the supplier and vice-versa. To ensure the success and consistency of procurement services, the responding organization shall provide an end-to-end solution. In this model, there are three distinct communities, namely the supplier community, the buyer community, and the procurement service provider. Figure 1 illustrates the three core entities involved in Malaysia's e-Perolehan initiative.

Supplier Community:

The supplier community consists of suppliers who have registered with the MOF to provide supplies and services to the government. There are about 120 000 registered suppliers (Commerce Dot Com, 2007) supplying goods under four categories, that is, Central Contract, Direct Purchase, Quotation and Tender purchase. These suppliers bear the responsibility to coordinate with the procurement service provider and register onto the new system with the Government Procurement Management Division, within Ministry of Finance. All suppliers are required to provide and update the necessary information regarding the items that they supply online.

Buyer Community

The government is the buyer community. The Malaysian government spent about RM 20 553 million on procurement in the year 2006 and has increased the amount to RM 23 151 million in for the year 2007 (www.mof.gov.my, 2007). The cost of processing and managing this process is extremely high with increasing expectation from the supplier side for the government to be more efficient. It is the responsibility of the buyer that is government to have the necessary information in place to be able to accept and respond to the supplier electronically in the process of procurement.

Procurement Service Provider:

The procurement service provider (Commerce. Com Sdn. Bhd.) provides the electronic concept solution which enables the full transaction of the procurement process between the buyer and the seller (Zaharah, 2007). The end-to-end model requires the service provider to provide a total solution to both the supplier and the buyer community. This includes application, hardware and software if necessary and more importantly the capability to exchange business documents between the communities e.g. Purchase Orders, Request for Quotation, and Request for Tender Document etc. The security and confidentiality of this document shall be ensured so as not to comprise the confidence of both communities. The service provider shall also adhere to all necessary government procurement policies and legal requirements. However, Commerce.Com can provide advice and give suggestions to the government if necessary with the aim of improving the current processes in order to enhance the efficiency and to lower the cost of operation for the government. Currently, Commerce.Com is involved in 2 modules for e-Perolehan:

- (1) Module 1 – Registration of the suppliers on-line with Ministry of Finance
- (2) Module 2 – Transactions – Central Contract, Direct Purchase, Quotation and Tender purchase.

3.2E-Perolehan Benefits

The e-Perolehan initiative is expected to provide significant benefits to both the buyer (government) and supplier communities. The findings of our interview with an official of the Ministry of Finance (project manager for the government) suggest the following benefits of e-Perolehan for the government:

- (1) Offers more effective and efficient procurement process in line with the country's transformation to the knowledge based economy (K-Economy). E-Perolehan is a vehicle for the government to leapfrog into the new economy and promote the widespread adoption of e-Business in the country.
- (2) Lowers operational cost for the government over time. The government will be able to reduce administration and operational costs through the usage of e-Perolehan as business processes are reduced and streamlined.
- (3) Better and up to date choice of products and services. A government buyer would have immediate access to a wide variety of products and services available to them via e-Perolehan, which will make them a better informed buyer.
- (4) Latest product information and pricing available on-line. E-Perolehan will always be up to date with the latest information that will help the buyer to make a more accurate procurement decision.
- (5) A more skilled and knowledgeable workforce. Through its usage, e-Perolehan will indirectly promote a higher rate of IT literate workforce, both in the government and private sectors.

(6) Better management of purchases and payments. With e-Perolehan, the government buyer would be able to track or audit the procurement processes or transactions that have been made.

(7) Will benefit from improved purchasing control, scale economies and greater accuracy in the ordering and billing process. Off-contract and uncontrolled purchases that drive up product cost and reduce negotiation leverage will be minimized. It also prevents corruption by eliminating gate keepers and reduces abuse of discretion and other opportunities for corruption (UNDP 2006). Besides that, information such as status of back orders and delivery status will be up-to-date and available electronically. This will help the government agencies in planning and budgeting process. The government ministries will also still maintain the freedom and responsiveness of decentralized purchasing, given the relevant information on the products and specification.

The potential benefits to the supplier community involved in e-Perolehan include the following:

- (1) Suppliers become much more accessible to a government buyer, whenever and wherever the supplier is.
- (2) E-Perolehan enables the supplier's transition into e-Business, providing an entry point for e-Business capability.
- (3) Suppliers will be able to adopt and grasp the e-Business concept more rapidly, due to the usage of e-Perolehan
- (4) Advertising of goods and services is much cheaper and faster, and yet reaches a much broader base of buyers.
- (5) With the Internet platform, suppliers would virtually have a borderless advertising channel at a very low cost.
- (6) Simplified processes and less manual work reduces administrative and operational costs. Through e-Perolehan, almost all the business operations will be automated, thus not only leading to lower operational costs, but as will as faster turnaround time to the buyer.
- (7) Suppliers would be able to receive payments faster through electronic payment. Supported by a highly secured network infrastructure, suppliers would be able to receive payments for goods and services in a shorter period.
- (8) Improved business planning and forecasting due to a more efficient and predictable procurement process. Due to the fact that e-Perolehan automates business processes and improves work efficiency, suppliers would be able to anticipate the procurement processes more accurately.
- (9) Through the e-Perolehan system, the suppliers are able to use a single electronic catalogue for all government ministries while extending a global reach electronically to existing and new customers on the service (www.eperolehan.com). Suppliers shall also benefit from improved information accuracy, increased productivity and reduced operational cost with the electronic retrieval and submission of quotation and tender information. Efficient processing on both supplier and buyer community will also translate to faster payment turnaround time.

4. Issues and Challenges

It has been eight years since Phase 1 of the e-Perolehan initiative has been launched. Although there are close to 120 000 government linked suppliers, only approximately 50 000 suppliers are e-Perolehan enabled. Although 50 000 suppliers have the capability to participate in e-Perolehan, only 6 000 suppliers are active users of the system. The rest are classified as inactive or casual participants of the system. The following points highlight the key issues inherent within Malaysia's e-Perolehan initiative that prevents the government and the service provider from maximizing the value potential of the system:

Cost :

There are costs involved before a supplier becomes e-Perolehan enabled. Specifically, suppliers have to bear the cost of purchasing a smartcard for transaction, pay for training, and also any software renewal cost that occurs. These payments are directed towards Commerce.com. Given that the majority of the suppliers within the traditional category belong to the small-medium size operations scale, it is only natural that they are not keen in becoming players within e-Perolehan, given the costs involved, to become e-Perolehan enabled.

Infrastructure and Skills:

As mentioned the majority of the supplier community fall within the small-medium size industry grouping. Traditionally, this sector has not been well versed with use of state of the art information systems. Issues such as lack of bandwidth support, poor computing and information systems architecture in general, prevents the majority of the suppliers from playing a more active part in e-Perolehan.

Business Focus/Change Management:

The majority of the suppliers are not keen to do business with the federal government, given the e-Perolehan requirement. Suppliers prefer to do business with local and state government as they can use traditional methods for selling tier products. Furthermore e-Perolehan still has not gone into tender and quotation compared to direct purchase and central contract which is small in volume. This issue is also in line with the need for better change

management to convert the mindset of traditional sellers to embrace change and use technology in the procurement process in general.

System Constraints:

The feedback we received from our interviews also suggests that the system in its current incarnation is not robust on several aspects. For examples, a supplier registered with the system, can only upload product information for ten different product areas, for free. Additional charges will; be incurred if more product lines are listed within the system. In short, for a company that has a wide product line, the additional cost involved to market the product via the system, might not be attractive.

Government Policy:

Although the Federal government of Malaysia encourages suppliers to become e-Perolehan enabled, the government can decide if it is willing to transact with a non e-Perolehan company, as long as the company is registered with Ministry of Finance. Stated differently, although in theory the supplier community must become part of the e-Perolehan system, in practice, this requirement has not been made mandatory as yet.

Despite the lackluster response by the majority of the seller community, close to 6 000 suppliers, as mentioned, have fully embraced and are active participants of the system. This situation is predominantly true for suppliers that visualize e-procurement as an opportunity and given the fact that the government could make it mandatory for large scale suppliers to use the system actively.

5. Discussion and Recommendation

One of the main challenges for an e-Procurement project is the establishment of an appropriate and context tailored strategy. Every project or initiative needs to be rooted in a very careful, analytical and dynamic strategy. This seems to be a very difficult task, requiring a focus on many aspects and processes, a holistic vision, long-term focus and objectives. Many public institutions limit their activities to a simple transfer of their information and services online without taking into consideration the re-engineering process needed to grasp the full benefits. The government must have a clear strategy to overcome the barriers to change. Part of the strategy is to engage in a rigorous assessment of the current situation, the reality on the ground and the inventory of projects, articulate costs, impacts and benefits of programme as well as continuously monitor and evaluate the project upgrading. Borrowing a lesson from the private sector, e-Procurement must be customer-driven and service oriented. This means that a vision of e-Procurement implies providing greater access to information as well as better, more equal services and procedures for public and businesses.

The e-Perolehan initiative in Malaysia is pretty much at an infant stage, albeit significant time, money, and efforts already invested into the project. To ensure the true potential and benefits of e-procurement is realized by all parties involved, emulating success stories from e-procurement initiative such as in West Australia and in Andra Pradesh, is a must for the Malaysian government. For a start, significant change to the mindset of the traditional suppliers is required. This can be done via active and continuous promotion and education of e-Perolehan and the benefits it brings to the supplier community, and also to the government. In addition, the service providers, namely, Commerce.com should reconsider reducing the cost of training and purchasing of the smart cards, particularly for the small scale suppliers. Lastly, the Federal government should craft out policies that are favorable and non-conflicting with the policy objectives and implementation plan inherent within the e-Perolehan initiative.

6. Conclusion

The findings from our case study in Malaysia suggest that the government should take a more proactive role in promoting e-Perolehan in Malaysia. This includes among others, making sure that the government's policy on procurement avoids any contradiction with the e-Perolehan implementation plan. In addition, issues such as regulating the cost for training and purchase of the relevant equipment should also be within the control of the government to ensure the small scale suppliers can be enticed to become active participants of the system. In terms of the sellers (suppliers) two kinds of e-Perolehan adopters currently exist. First is the aggressive adopters who are involved fully (6 000 suppliers). These suppliers seem to benefiting from e-Perolehan and are trying to achieve competitive advantage by using IT in their procurement process. Nevertheless, there are the conservative adopters (the laggards) – are taking 'wait and see' approach, before they are willing to actively become part of the system. On balance, the general consensus amongst both the buyer and seller communities is that e-procurement will become an important management tool to enhance the performance of supply chain especially in the public sector. In this regard, we expect that between the next three to five years, more suppliers will grab the opportunity and benefit fully from the e-Perolehan initiative in Malaysia.

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Table 1. Main Projects under the E-Government Flagship

Projects	Characteristics
Generic Office Environment (GOE)	provides a new paradigm of working in a collaborative environment where government agencies communicate, interact and share information
Electronic Procurement (EP)	Links the government and suppliers in an online environment. Government agencies as buyers procure goods/services by browsing catalogues advertised by suppliers. Aimed at best value for money, timely and accurate payment
Project Monitoring System (PMS)	Provides a new mechanism for monitoring implementation of development projects, incorporating operational and managerial functions, and knowledge repository
Human Resource Management Information System (HRMIS)	Provides a single interface for government employees to perform HRD functions effectively and efficiently in an integrated environment.
Electronic Services (e-Services)	Enables direct, online transactions between the public, the government and large service providers via electronic means
Electronic Labour Exchange (ELX)	A one-stop-centre for labor market information, accessible to government agencies, the business sector and the citizens.
E-Syariah	Introduces administrative reforms that upgrade the quality of services in Syariah courts. To enhance the Islamic Affairs Department's effectiveness- better monitoring and coordination of its agencies and 102 Syariah courts.

Source: MDeC (www.mdc.com.my)

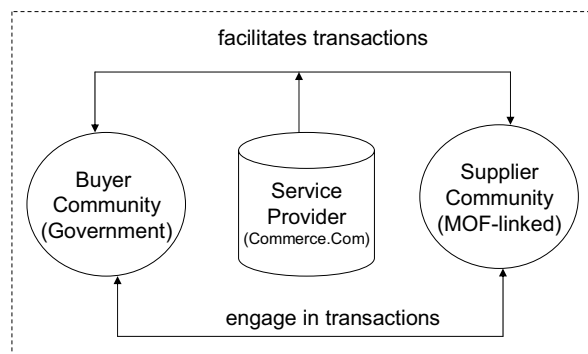


Figure 1. e-Perolehan Model