

# The Analysis Of Electronic Government Blueprint For Implementation Towards The Actual E-Government Implementation

Raha Othman<sup>a</sup> and Abdul Razak Rahmat<sup>b</sup>

<sup>a</sup>Malaysian Center for Geospatial Data Negara (MaCGDI)  
Ministry of Natural Resources & Environment  
Level 7, Block 4G3, Precint 4  
Federal Government Administration Centre  
62574 Putrajaya, Wilayah Persekutuan Kuala Lumpur  
Tel: 03-88861163, Fax: 03-88894851, E-mail: raha@macgdi.gov.my

<sup>b</sup>Faculty of Information Technology  
University Utara Malaysia  
06010 Sintok, Kedah, E-mail: arazak@uum.edu.my

## ABSTRACT

*There is still lack of study in the area of e-government in Malaysia currently even though it is part of Vision 2020. Hence, more study is needed to provide accurate insight of e-government scenario in Malaysia. After the e-government initiative took off in year 1997, there are numerous negative reports with regard to the current status of the e-government initiative. This study will investigate the actual situation of e-government implementation based on the implementation blueprint document produced by MAMPU. It will also analyze Malaysia readiness in implementing the e-government projects where the analysis will be based on Heek's readiness model. Based on the result and findings of this study, several recommendations have been proposed in order to ensure the success of the e-government projects.*

## Keywords

*Electronic Government, MSC flagship*

## 1.0 INTRODUCTION

Electronic government is defined as the use of Internet and other digital devices in public sector to deliver services and information (West, 2004). Until recent years, e-government has been widely adopted in most countries in order for the countries to achieve good governance. The adoption of e-government integrates both the processing and the communication technologies since it integrates people, processes, information, and technology in the service of achieving government objectives (Heeks, 2001). By implementing e-government, it will help to improve the government processes, connect citizens and build interactions with and within the civil society.

One of the key factors for Vision 2020 realization is the adoption of Information and Communication

Technology (ICT) since it accelerates information and knowledge development and consumption and thus acts as the key driver for country future growth (Tengku Mohd Azzman, 2004). As one of the strategies to achieve Vision 2020, Multimedia Super Corridor (MSC) has been introduced to accelerate Malaysia's entry into the Information Age (Muhamad Rais & Nazariah, 2003). An agency, Multimedia Development Corporation (MDC), has been entrusted with the task of planning and implementing the MSC. The MSC was designed to create an ideal environment for ICT-related production as well as to provide the backbone for an information superhighway (UNESCO, n.d.).

The e-government flagship initiative will be the basis for enhancing efficiency and service delivery to the public while fostering partnership between the government, citizens and businesses (MAMPU, n.d.). One of the government agencies, Malaysian Administrative Modernization and Management Planning Unit (MAMPU), has been entrusted to plan, implement and monitor the e-government initiative. Re-inventing government services within government itself and to the public and the business is one of the key elements for a successful e-government implementation in Malaysia. Under the e-government flagship, seven main projects identified which are Generic Office Environment (GOE), Electronic Procurement (eP), Human Resource Management Information System (HRMIS), Project Monitoring System (PMS), Electronic Services Delivery (eServices), Electronic Labor Exchange (ELX), and E-Syariah (MDC, 2004).

### 1.1 Problem Statement

In order to realize the e-government adoption in Malaysia, MAMPU has introduced several documents to streamline the e-government implementation (MAMPU, 1998). One of the documents, Blueprint for

Implementation contains explanations on concept, vision, objectives and roadmap of e-government implementation. Despite of the availability of these documents, several surveys and studies which were done by recognized research firms and independent organizations have indicated that Malaysia was lagging behind in the implementation of e-government initiative, having low usage among the citizens and the e-government services maturity is low. Among the surveys and studies are:

- i. Impact Study on Seven Flagship Application (Muhammad Abkari Omar et. al, 2004) which focuses on the impact of the pilot electronic government applications implemented by the Malaysian government. The study concluded that users are not satisfied with the e-government services provided.
- ii. Global E-Government, 2004 (West, 2004) which focuses on several factors of e-government services such as availability of online information, information privacy and security, access for disable person, foreign language access, public outreach, advertisements on e-government, user fees and premium fees. The result of the study has ranked e-government in Malaysia at number 83 globally which is way below the result for year 2002 and 2001 where Malaysia was ranked 21<sup>st</sup> and 16<sup>th</sup> respectively.
- iii. Government Online: An International Perspective 2003 (Parr, 2003) that benchmarked citizen's use of government online services by interviewing representative samples of adult population in the country. It has classified Malaysia as having a low penetration in term of e-government usage among their citizens.
- iv. Benchmarking e-Government: A Global Perspective (UNDPEPA, 2002) in which the primary goal of this study is to objectively present facts and conclusions that define a country's e-government environment and demonstrate its capacity to sustain online development. The study has ranked Malaysia well above regional means for infrastructure readiness but, the information access measure is among the lowest among 190 UN countries that was surveyed. Malaysia's online services were barely above the interactive level and the citizen-centric component is only minimally present.
- v. Research on e-government status for 20 countries including Malaysia (Accenture, 2001) which had categorized Malaysia under the "Slow Starters" group which means that the e-government implementation in Malaysia is at a slow

pace. In term of service maturity, Malaysia is considered still very low. The delivery maturity also indicates Malaysia at low level.

Given the above indicators from the independent surveys and studies, there are ample evidences that e-government implementation in Malaysia requires more attention and focus from all group of Malaysian society. Since there are not many studies have been done in the area of e-government, there is a need for a study to be conducted which solely focus on this issue. This study will evaluate the usage of the blueprint document towards e-government implementation in Malaysia. Beside that, the study also focuses on Malaysia's readiness to implement e-government applications. Thus, the main focus is to determine whether the problem lies within the blueprint itself or some other factors such as the government readiness.

## 1.2 Objectives

The objectives of this paper are to study and analyze the blueprint document for e-government implementation in Malaysia and the government readiness to implement e-government applications. Specifically, the study seeks to:

- i. Determine any missing factors that can be considered as additional elements in the blueprint document.
- ii. Determine any action taken that deviate from the blueprint document which may impact the progress of e-government implementation. As such, an effective control and planning mechanism must be introduced to closely monitor the implementation progress to avoid the deviation.
- iii. Formulate a suggestion plan that would further help to strengthen or to improve the implementation of e-government in Malaysia.

With these objectives, the study hypotheses can be described that there are missing factors in the blueprint document as well as the document is not being adhered which resulted to a lower success rate of e-government implementation in Malaysia

## 1.3 Project Significance

The study is hoped to raise awareness on the public about e-government initiatives and identify any possible improvement for e-government implementation in Malaysia. Beside this, it is hoped that the study will provide significant data and insight of the local electronic government scenario. Possibly, the study will foster positive ideas and suggestions towards bettering e-government implementation.

## 1.4 Project Scope

In general, this study will only concentrate on the e-government applications defined by the Malaysian government. Non-electronic government flagship applications will not be included in the study scope since they are not part of the e-government flagship package as defined in the MSC initiative. This is to ensure that the result of the study is only based on the defined e-government applications and not based on all government-based applications found in Malaysia. The process of data collection is held only within MAMPU as the main agency that directly involved in closely monitoring all implementation process for all e-government application.

## 2.0 LITERATURE REVIEW

The vision of the e-government flagship application calls for the government to strive for service excellence by improving its productivity and effectiveness through the application of information and multimedia technology (Government of Malaysia, 1999). Leading edge technology will enable internal processes to be re-engineered and become more efficient and transform service delivery to customers. This transformation represents a paradigm shift that will impact the manner in which citizens interact with the government. Transactions will move towards a paper-less environment conducted electronically through speedy online multi-delivery channels.

Before implementing e-government initiative, a country must realize the principles of e-government. It is very crucial to understand these principles as failure to understand the principles may end up in total failure of e-government initiative. According to UNDPEPA, basic principles of e-government described as below (UNDPEPA, 2002).

- i. The e-government applications should be built based on the services around citizens' choices.
- ii. The main objective should be to make the government and its services more accessible.
- iii. The implementation of e-government initiative should facilitate social inclusion
- iv. The e-government applications should provide information responsibly
- v. The e-government implementation should use government resources effectively and efficiently.

In order to achieve the objectives of e-government, the implementation plan needs to consider many things; not just only about deploying multimedia systems into government departments. The implementation of e-government needs to co-ordinate change in all three main elements of government namely people, processes and systems (Muhammad Rais & Nazariah,

2003). Beside this, any government that wishes to implement e-government must ensure that they are ready for the change. The readiness for e-government starts with the political will and information policy (Akhtar, 2002). Other key factors for readiness are the availability of telecommunication infrastructure, the human capacity within the government, the existing and expected budgetary resources, the e-business climate and the official readiness to change. Several factors have also been identified that could impede in enabling e-government environment in developing countries such as institutional weakness, human resources issue, funding arrangements, the local environment and technology and information changes (UNDPEPA, 2002).

In Malaysia, the e-government implementation is considered relatively new for most people. As of now, no independent study has been conducted within Malaysia study the e-government implementation process or as to identify if Malaysia has prepared herself to move to e-government. Thus, there is significance for conducting an independent study on this as to ascertain the global image toward e-government implementation in Malaysia.

## 3.0 RESEARCH METHODOLOGY

The study will be conducted as an evaluation research due to the nature of the study which is for evaluation purposes. The research process in this study is adopted from Babbie (2004). However a few changes are made to the steps introduced, to meet the research needs. The steps adopted for this research are identify problem and objective, conceptualization, operationalization, selecting the research method, identify target population, data collection, data analysis and generate conclusion and recommendation.

During identifying problem and objective stage, general study is done to the area of interest to generate idea on the potential factor. E-government has been chosen as the potential area since there are quite number of issues arises recently and there is still lack of research done for this area. The scope of the study is reduced to concentrate only on the implementation process of the electronic government application. After well defining the purpose and problem statement the objective is identify.

In the conceptualization phase, the concept of the study is to analyze and suitable indexes are identified to achieve the objective of the study. Since the definition of 'success' in e-government implementation is very subjective, a good method of evaluating the success of e-government is very critical to the study. This is also supported by Proudfoot (2002) where most of recent studies on e-government measure the quantity of e-government but not the quality. The success factors are derived from the implementation blueprint

document itself where stated that conditions for success are usage, access, equality, quicker roll-out and expenses. Other than that, the success factor also derived from Heeks's government readiness conditions which are described earlier.

To achieve the objectives of this study, a combination of two research method is used, namely qualitative field research and unobtrusive research. In qualitative field research, no specific set of questions is asked in particular words and orders, however the direction of the point needed is set earlier to ensure all related data can be collected. While in unobtrusive research method, data is collected by analyzing existing documented data (Babbie, 2004).

The activity during operationalization is to identify the data collection technique and measurement technique. There are two sections of questions in this study. The first section of the questionnaires is focused on finding out how much of the blueprint document is being followed or is there any missing element not defined in the blueprint. The second section of the questionnaires will focus on findings if the government is ready and prepared to start with e-government implementation. Both sections of the questionnaires are combination of objective and subjective questions. The objective questions are in the form of 'yes' or 'no' answer. The subjective questions are developed to find out the details of the e-government implementation. The questions are subjective in nature because the answers or information given by the respondents are going to be in form of opinions, perceptions, observation or deduction. The justification for each point to measure in order to evaluate the success and government readiness, are shown in Table 3.1 and Table 3.2.

Table 3.1: Condition for Success

| Condition for Success  | Justification   |
|--|---|
| <p>A. Usage – widespread public adoption :</p> <p>a) Availability of statistical report on number of transactions done via e-Services facilities vs over the counter / other.</p> <p>b) Availability of statistical report on the spread usage by geographical area</p> <p>c) Availability of statistical report on the usage by location of service</p> | Based on the statistical reports available, the researcher will be able to determine the level of usage of the e-government applications.   |
| <p>B. Access – wide variety of delivery channel for public access</p> <p>a) Type of delivery channels available to access e-services.</p> <p>b) Geographical location of the kiosks machine</p> <p>c) Is the channel (i.e.</p>   | The number of type of delivery channels available will determine the accessibility rate. Also, number of instances for each type of delivery channel will determine the accessibility rate. The location of the delivery channel is also an |

| Condition for Success  | Justification  |
|--|--|
| <p>kiosks) location located in dense public places?</p> <p>C. Equality – reaching to all segments of society</p> <p>a) Service availability.</p> <p>b) Type of languages used as a medium.</p> <p>c) Availability of helpdesk service.</p> <p>d) Availability of any special service for disable person.</p> | <p>important factor for determining the accessibility rate.</p> <p>Type of service availability will determine whether the application reachable to all segments of society.</p> |
| <p>D. Quicker Roll-out – quick, focus and comprehensive roll-out</p> <p>a) Duration taken to start pilot test from project initiation.</p> <p>b) Type of facility category available in the current release.</p>   | Quick and comprehensive roll-out can be determined based on the project duration and the number of functionalities in the application.   |
| <p>E. Expense – minimal capital outlay</p> <p>a) Is the total cost within the budgeted cost?</p> <p>b) Percentage of cost saving or extra cost.</p>  | Expense factor can be determined based on the actual expense incurred versus the budgeted expense.   |

Table 3.2: Government Readiness

| Readiness Factors   | Justification   |
|---|---|
| <p>Commitment and Awareness</p> <p>a) IT Training to public service staff.</p> <p>b) Awareness program for the citizens and business community.</p>   | Factors to gauge the commitment and awareness factor which are number of IT training given and frequency of the training and type of awareness program and frequency of the awareness program   |
| <p>Legislative Infrastructure</p> <p>a) Laws and regulations that govern the e-government initiative.</p> <p>b) Any impending laws and regulations?</p>   | Legislative factor can be determined based on the availability of laws and regulations to support the e-government implementation.  |
| <p>Human Infrastructure</p> <p>a) Types of preparation to resolve 'skill gap' issue.</p> <p>b) Specific skills and knowledge trainings to support e-government initiative.</p> <p>c) Preparation to resolve the 'mindset gap'</p> | The human factor can be determined by type of specific skills training given to staff supporting the e-government implementation and type of programs implemented to resolve the 'mindset gap'. |
| <p>Technological Infrastructure</p> <p>a) Telecommunication infrastructure capabilities.</p> <p>b) Computing capabilities.</p>  | Technological factor can be determined based on the type of telecommunication infrastructure and the computing capabilities.  |
| <p>Data System Infrastructure</p> <p>a) Data availability (quantity) to support movement to e-</p>  | Data System factor will be based on the availability of existing data and the quality of the data to  |

| Readiness Factors  | Justification  |
|--|--|
| government.<br>b) Data quality to support the e-government project.  | support the e-government implementation.   |
| Institutional Infrastructure<br>a) Any other agencies that involved directly with monitoring e-government initiative other than MAMPU? | Institutional factor will be based on the availability of any institution to specifically support the e-government implementation process. |

Other than handling the interview session, information and data is gathered from the books, websites and MAMPU library. Interviews are conducted with officers from Electronic Government Division in MAMPU. The candidates selected for the interview are those who are involved and familiar with the implementation stages of e-government pilot applications. They are selected because they are likely to give complete answers to all the questions and able to provide opinion on the subjective questions.

During data analysis phase, all data and information gathered through the interview, books and documents review, and internet survey are analyzed. The information on actual implementation process is carefully study and compared with the proposed implementation plan in the blueprint document. Other than that the data and information are also being study and evaluated based on the measurement index choose in the earlier phase. The analysis is based on the data that is revealed by the target population and data that is derived from the documents.

The final phase of the research process is to generate conclusion and recommendation. Based on the finding and result from the analysis activity, a conclusion on overall study is made and a list of recommendation is generated.

#### 4.0 RESULT AND FINDINGS: GENERAL INFORMATION

The establishment of Malaysian Administrative Modernization and Management Planning Unit (MAMPU) was a result from the report entitled 'Development Administration in Malaysia' by Prof. John D. Montgomery and Milton J. Esman. The report basically stated that the increase of professionalism in government would be achieved via educational and training programs continuously (MAMPU, 2004). Based on the proposal from this report, Unit Pentadbiran Pembangunan (DAU) was established in 1966 to increase effort in improving the government administration. In year 1977, the agency has been restructured and known as MAMPU.

In initial stage of e-government development, the government has identified five pilot projects of e-

government application. In order to start the development of these five pilot projects, MAMPU has opened tender for Concept Request for Proposals (CRFPs) in year 1997 (MAMPU, 1999) and officially closed in November 1997. Evaluation of these CRFPs was done in year 1998. After extensive series of evaluation and discussion, MAMPU has awarded the pilot projects to two main consortiums namely Korszortium Collaborative Technology and MRCB Multimedia Consortium Sdn. Bhd.. The contract agreements have been signed at the end of year 1998 and in year 1999 (MAMPU, 2000). In year 1999 also, the consortiums have started planning for the pilot projects. In year 2000, the government has decided to include two more pilot projects to the existing e-government pilot projects which are Electronic Labour Exchange (ELX) and Electronic Syariah (E-Syariah) (MAMPU, 2001).

Realizing the importance of e-government pilot projects, MAMPU has established a new department called Bahagian Perancangan dan Pembangunan Kerajaan Elektronik in early year 1997. The main task of this department is to plan and to manage the implementation of e-government project. As the e-government project grows, MAMPU has decided to rename the department to be Bahagian Pembangunan Kerajaan Elektronik (BPKE) and increasing the department responsibility including on network issues, technical support, shared services outfit, and human resources on ICT (MAMPU, 2002). With the increase in responsibilities of the BPKE, MAMPU has created 208 new positions in order to support the new responsibilities. Such positions include technical positions and non-technical positions. BPKE also has been divided into six sections with each of the section in-charge of a specific task (MAMPU, 2003).

As the core agency for e-government project, MAMPU has introduced two management structures where one is at MAMPU level and the other one at core agencies that will implement the project (MAMPU, 2001). These management structures are known as Program Management Team at MAMPU level and Project Implementation Team at core agencies level. The responsibility of Program Management Team is to plan and monitor the progress of e-government pilot projects while the Project Implementation Team responsibility is to oversee the project implementation and to evaluate and approve all project deliverables.

#### 5.0 DISCUSSION ON FIVE CONDITIONS OF SUCCESS

The first condition for success described in the Implementation Blueprint document is usage which refers to the volume of usage of the application. In order to meet this condition, the application usage must be high and have widespread public adoption. The document has specifically mentioned that

comprehensive monitoring must be done on the application usage. According to MAMPU, the current report only covers the frequency of the electronic transactions only. Then, there is no comparison between the e-government transactions versus over the counter transaction for the same activity. The detailed reports are not made available due to confidentiality issue. Overall, the interviewed MAMPU officer agreed that the usage of e-government pilot applications is still at moderate level.

The second condition for success stated in the Implementation Blueprint document is access which refers to the wide variety of delivery channels delivered on an open architecture concept. This is to ensure that there is maximum public access. According to the document, it was proposed that public should be able to access to the e-government application via terminal in agency offices, telephone or fax, kiosks machine, internet access and interactive television. As of current pilot project, the e-government application still not able to be accessed via telephone or fax and interactive television. Thus, the current delivery channels are not fully met the proposed delivery channels.

The third condition for success described in the Implementation Blueprint document is equality which means that the application should be able to reach to all segments of society in Malaysia. In the pilot e-government application, the transaction can only be done via credit card. Hence, not all segments of society in Malaysia able to use the application as only credit card holders can enjoy the facilities offered in the application. Then, the medium of language used in the pilot e-government application is English and Bahasa Melayu. Hence, those who are not able to understand or read any of these languages will be spared from using the application. The current pilot e-government application also does not have the facility for disable person such as voice recognition. Overall, the 'equality' condition for success is not met in the current pilot e-government application.

The fourth condition for success described in the Implementation Blueprint document is quicker roll-out which means that the e-government application roll-out must be quick and comprehensive. According to MAMPU yearly reports, the first phase (first wave) of pilot application roll-out begin at end of year 2001 even though the initial application development started in year 1999. In year 2003, there also some of the e-government applications still going through the final acceptance test. This is quite a long time for rolling out an application. Another research on e-government impact in Malaysia also stated that many e-government vendors had taken longer time to deliver the solutions. Surprisingly, even after four to five years, the works are still in the pilot stage (Muhammad Abkari Omar et. al, 2004). In addition, all of the pilot applications are

not yet comprehensive as there are several functionalities proposed in the Implementation Blueprint document are still not included in the application. Overall, the e-government pilot applications are not quickly roll-out and not comprehensive.

The final condition for success described in the Implementation Blueprint document is expense which means that there should be minimal government capital outlay in providing e-government services. Since expenditure information is considered highly confidential, the researcher not being able to provide justification on this item. However, the simple answer given by MAMPU officer is that the expense is within the budgeted expense. Thus, the 'expense' condition for success is fully met.

In summary, there are certain missing elements found in the blueprint document such as the document does not clearly describe on how to reach the equality issue. Even though equality is one of the conditions for success, the implementation plan does not cover this matter. There are also parts of the implementation plan are not being followed by agency in charge. For example, types of report for monitoring the application usages have been proposed in the document but none of them exist currently.

## **6.0 DISCUSSIONS ON HEK'S READINESS FACTORS**

The first e-government readiness factor is about commitment and awareness. The commitment and awareness include the leader of the government, the civil servants and the public and business as well. According to the findings from MAMPU officers, the government leader commitment toward e-government implementation is very high. For example, the government has ensured that all public servants are being trained to handle the e-government application effectively. However, in another contradicting report, it was stated that there is still lack of commitment from government agencies. Even though the pilot applications have been roll-out, there's still lack of usage of the applications (Himmelsbach, 2002). In one of the researcher observation, one of the service providers for e-Services application has not being operational for the past one month. The message appears on the website is that the service provider is on the process of upgrading the website but until now the service still not available. In general, the leader commitment is high but there are certain quarters of the government agencies that are not seriously committed to help implement e-government application successfully in Malaysia.

The next factor of e-government readiness factors is the legislature infrastructure. There are existing cyber laws in Malaysia currently but none is specifically

addressed to cover e-government implementation. In year 2004, the government has proposed to table three new cyber laws to the parliament. They are Personal Data Protection (PDP) Bill, Electronic Transaction Act (ETA), and Electronic Government Activities Act (EGAA) (Chong, 2004). EGAA is a specific Act that will govern the e-government activities in Malaysia. Until this Act is accepted by the Parliament, the current e-government activities will not be properly governed by law.

Human infrastructure readiness is another e-government readiness factor. The attitude, knowledge and skills must be in place before the initiation of e-government projects. The competency level of people involve in e-government project must be very high and they must also committed to the projects. According to UNDEPEA report in year 2002, Malaysia human capital index is about 0.774 which is slightly higher than the regional average. The index indicates that the human infrastructure readiness is above the regional average for Malaysia.

In term of technological infrastructure readiness, Malaysia is considered as one of the best in the world. The network within the Multimedia Super Corridor (MSC) contains a high-speed 10Gbps fibre optic network that capable to support extensive public administration, education and business applications (UNESCO, n.d.). Even though there is strong telecommunication infrastructure within the MSC itself, there is still concern over the technological infrastructure capability in rural areas in Malaysia (Himmelsbach, 2002). This should be the future agenda as to ensure the equality of e-government access to all Malaysian regardless their location and social status.

Another important e-government readiness factor is the data system infrastructure. There should be enough data quantity and quality to support the move of e-government. Also, the data security must also be in place. In Malaysia, the government has initiated Smart Card as a multipurpose card to allow multi type of transaction. There are two types of card available currently (Himmelsbach, 2002). The first card is the Government Multi-Purpose Card (GMPC) which integrates national identification, driving license, passport details, health information, e-cash and a public key infrastructure. The second card is the Payment Multi-Purpose Card (PMPC) which integrates credit card, debit card, ATM and e-cash applications. However, the is still a lot more coordination and planning required before Malaysia's Smart Card fully used and operated as the multi-purpose card.

The final e-government readiness factor is the institutional infrastructure. There must be an institution to co-ordinate and lead the e-government initiative. In Malaysia, MAMPU is the core agency that

will lead the e-government implementation even though the pilot applications are scattered among many government agencies (MAMPU, 1997). Beside MAMPU, the government has appointed Multimedia Development Corporation (MDC) to ensure that e-government implementation is consistent with the multipurpose smart card, smart schools and telemedicine initiatives.

To sum up, there are several readiness factors which does not exist or partially exist. For example, there are no specific laws and regulations that will govern the e-government initiative available currently. In the of data system infrastructure, the infrastructure is exist but not fully optimized yet. The readiness factors should be co-exist within the Implementation Blueprint document in order to reduce any hiccups during the implementation stage of e-government applications. Failure to provide proper justifications in term of government readiness to implement e-government initiative will lead to many problems that will hamper the implementation process.

## 7.0 CONCLUSION

Several recommendations should be implemented after evaluating the findings of this research. Firstly, the e-government application should be build based on citizens' choice. Next, there should be a "whole-of-government" strategy to provide access to on-line federal information and services. Then, a comprehensive laws and regulations must be in place prior to the implementation of e-government initiative. In order to ensure the success of the project, a comprehensive set of monitoring tools must be deployed to oversee the implementation of the e-government pilot projects. Lastly, more awareness programs must be given to the citizens to increase their awareness on e-government initiative.

Since the conduct of this research is within the government agency, there are several limitation faced by the researcher. Among the limitations in conducting this research are confidentiality of information, detailed information is scattered and busy schedule of the MAMPU officers. It is recommended that future study on this subject should ensure better coordination with MAMPU and has longer study duration or the study is done by group of researchers. This is due to the complexity of the study. Other than these, it is also recommended that individual study to be conducted on each of the seven e-government pilot project since each of the pilot project are very unique and independently among each other.

*"The move from Kuala Lumpur to Putrajaya is more than a physical migration. It is also symbolic of discarding old legacies and old mindsets – a move towards information-driven frameworks for performance-based management and services. And,*

we hope, this move will set in motion a paradigm shift in our way of thinking, working and living.” (MDC, 1998)

Above is the excerpt from one of the speeches made by the previous Prime Minister of Malaysia on e-government subject. The government main objective of introducing e-government initiative is not just for the purpose of computerizing the current operations and procedures. It is the government hopes that the e-government initiative will allow the paradigm shift in the Malaysian way of thinking, working and living. A successful implementation of e-government initiative in Malaysia would mean that we are one step closer to achieve Vision 2020 goals. In conclusion, with full commitment given by all level of Malaysian society towards e-government initiative, success will be made reality.

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