IMPLEMENTATION E-GOVERNMENT INITIATIVES AMONG MALAYSIAN LOCAL AUTHORITIES

Prof. Dr Ahmad Bakeri Abu Bakar
Department of Library and Information Science
International Islamic University Malaysia
Kuala Lumpur, Malaysia
e-mail: bakeri@iium.edu.my

Nur Leyni Nilam Putri Junurham
Department of Library and Information Science
International Islamic University Malaysia
Kuala Lumpur, Malaysia
e-mail:nurleyni.np@gmail.com

Abstract— **This paper was to study the implementation of the eGovernment initiatives among the local authorities in Malaysia which are under the jurisdiction of the local governments by using the Web Presence Measurement Model. The findings showed that the City council came out top in terms of achievement for the five Stages of Web Presence while the District council came out last which means a good number of indicators are absent from the District council websites/portals The findings also showed that the local authorities operating in the State of Selangor were much more advanced in term of representation for their websites/portals compared to those found in the State of Sabah which is located at the bottom of the list. Lessons from this study indicate that local authorities operating in constituencies with high income per capita such as Selangor are able to integrate more facilities in their websites. However, social network facilities such as Facebook and Twitter are being provided by all the local authorities websites. It is expected that the evaluation of the local authorities websites will provide a clear indication as to the extent of e-government implementation among local authorities in Malaysia.**

Keywords- eGovernment, evaluation, Malaysia, local authorities, websites.

I. INTRODUCTION

The implementation of eGovernment in Malaysia witnesses the new beginning of reinventing the government by transforming the way it operates, modernises and improves its service delivery. This initiative by the government is in reality a product of the efforts under the Multimedia Super Corridor (MSC). It is designed to improve information flow and processes within the government, improve the speed and quality of policy development, and improve coordination and enforcement. This would enable the government to be more responsive to the needs of its citizens [1]
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The MSC is a project created by the eGovernment to hasten the process of the nation to become first world status by the year 2020. For this purpose the government has embarked in various initiatives and investments related to information and communication technology (ICT). The MSC now known as MSC Malaysia was responsible for establishing the e-government flagship under its flagship applications programme. Under the e-Government flagship, seven main projects were identified to be the core of the e-government applications. The eGovernment projects are Project Monitoring System (PMS), Electronic Procurement (eP), Generic Office Environment (GOE), E-Syariah, Human Resource Management Information System (HRMIS Electronic Services Delivery (eServices)), and Electronic Labour Exchange (ELX).

The commitment of the government towards investments in the ICT sector has been enhanced recently. During the tabling of the 10th Malaysia Plan (10MP) 2011-2015 in parliament in June 2010, the prime minister outlined several investments in ICT sector.

The move by the Malaysian Government to enhance the ICT sector has resulted in the improvement of Malaysia's ranking in the eGovernment development index as reported in the United Nations E-Government Survey 2012 "It is somewhat noteworthy that the emerging leaders group includes some developing countries that have begun to catch up with higher-income countries, such as Kazakhstan with eGovernment development index at 0.6844 , Chile with eGovernment development index at 0.6769, and Malaysia with eGovernment development index at 0.6703." [2] Therefore, it is important to find out whether the improvement of Malaysia's ranking on the eGoverment development index is effecting changes at the local government level.

Several states announced ICT plans to complement the development of the MSC. For example, Selangor state government has set up the Selangor Networking and the Web homepage for its various agencies which would link the state

administration and all government departments and agencies with every business organisation, office, factory, school and home in the state. Johor state government announced the establishment of Johor Information Infrastructure (JII) costing RM30 million, the first state to set up such a system in order to provide the public with a more efficient information service. The rate of development of the ICT sector at the state government level would directly or indirectly influence the state of eGovernment implementation at the local government level. This is due to the fact that the local government authorities are under the jurisdiction of the state governments. This situation arises from the Malaysian government structure of having a three-tiered government administrative systems namely federal, state government and local authorities.

Generally, the local authorities are under the jurisdiction of the state governments.   Three types of administrative councils are in existence. These are the City, Municipal, and District councils. A city council refers to a local authority in which the population of the jurisdiction area exceeds 500,000 people and the collection of the annual revenue is more than RM100 million. City councils are led by mayors. A local authority is known as the municipal council if the population of the jurisdiction area is not less than 150,000 and the annual revenue collection is more than RM20m. A municipal council is led by a president. On the other hand, a local authority is known as a district council if the population of the jurisdiction area is less than 150,000 and the collection of annual revenue is less than RM20m [3]. All these councils perform the same functions namely the provision of basic services which covers the maintenance of local community, including businesses as well as regulating land use and business activity within the administrative area.

A mayor or president will be appointed to head the local authorities. Currently the total number of local authorities in Malaysia is 145. The Malaysian local authorities (MLA) consists of 12 City Councils, 38 Municipal Councils and 95 District Councils. The executive powers lie with the mayors in city councils, and presidents in municipal and district councils. The state governments, elected every five years, appoint mayors, presidents and all councillors. These appointments are for a three-year renewable terms. The council decision-making process is through a committee structure determined by the local authority.

The eGovernment applications would not have succeeded had it not been for the strong support of the government in the information and communication technology (ICT) sectors. Governments of both developed and developing countries have embraced ICT to improve the quality of public service, increase public access to information and to energise more participation in civic affairs [4],[5]. The citizens also are accustomed to the developments of ICT through the high rate of utilization of Internet. In the case of

Malaysia Internet usage has increased at a remarkable rate. In 2000 the number of subscribers was only about 2 million [6]. In 2007 the number of Internet subscribers have reached 13.52 million [7]. At the end of 2010 it is estimated that the Internet penetration rate will be at 16.9 million [8]. The Internet is an important element in eGovernment as the term itself is defined as" exclusively an Internet-driven activity that improves citizen access to government information services and expertise to ensure citizen participation in, and satisfaction with the government process"[9].

One conduit of offering in the Internet services to the public and business clients is the creation of eGovernment websites or portals. The presence of eGovernment websites, however, might not change the status quo as they could just be displaying information in an attractive manner and nothing more to the public. [10] opined that " No longer can a website justify itself merely by being a website – the bottom line is apparently clear : web pages must reach concrete goals and prove their investment". In order to understand whether the creation of the eGovernment websites has benefited the public or not then the question of how usable these websites are to the public has to be evaluated. The evaluation of eGovernment websites and portals can be done at several levels of the government machinery. Some scholars have accessed for features such as information availability, service delivery, and public access at global level at national level and at municipality level [11].

The paper will cover the following components: purpose of study, methodology, data analysis and conclusion.

II.   PURPOSE OF THE STUDY

The aim of the study is to determine the maturity level of implementation of eGovernment applications at the Local Government levels based on the evaluation of the eGovernment websites or portals at local authorities level. This approach is taken in order to understand more clearly the actual situation on the ground.

III.   METHODOLOGY

A Model called Web Presence Measurement Model WPMM) was employed to evaluate the current status of those local authorithy websites or portals in Malaysia selected for the study. The Web Presence Measurement Model (WPMM) was introduced in the UN eGovernment Survey 2003 as an assessment towards United Nations member countries specifically for their capability in providing services electronically via the Internet. The WPMM shows 5 progressively ascending stages of presence that consists of Emerging Presence, Enhanced Presence, Interactive Presence, Transactional Presence and Networked

Presence. WPMM quantification considers the development of maturity of E-Government presence on-line. Indicators are used to measure the presence or absence of specific electronic facilities or services available in the government agency websites or portals. The WPMM model is shown in Table 1 and some refinements or adjustments have been made to some indicators to ease the evaluation process.

TABLE 1 : WEB PRESENCE MEASUREMENT MODEL INDICATORS [12]

Stage 1 Emerging Presence
Existence of an Official Website or National portal
Archived information
Message from Head of organization
Link to Ministries or other organizations
Stage II: Enhanced Presence
Provide current and archived information
Policies, budgets, regulations and downloadable databases
Search enabled
Site map
Menu provided
Help features such as FAQ provided
Product, service details and downloadable brochures
Stage III: Interactive Presence
Downloadable forms for printing and to be mailed back
Audio and video capability
E-mail, fax, telephone and physical address provided for ease of participation from public
Updated regularly
Stage IV : Transactional Presence
Instruction to support any transaction
Online application of identity cards, birth certificate and license renewal
Able to make online payments via credit, bank or debit cards
E-procurement facilities provided
Online bidding via secure links for public contracts
Stage V: Networked Presence
Use of Web Comment forms
Other innovative dialog mechanism such as chat or forum facilities
Web rating

A weight scoring method to gauge the presence of the relevant indicators is adopted in analyzing the maturity of the respective websites or portals. The weighting is computed on the basis of 1 unit score is given to the presence of a particular indicator. Based on this procedure the scoring weight for the five stages of presence is shown in Table 2.

TABLE 2: SCORING WEIGHTING

Stages	Weighting
StageI ;Emerging Presence	4
StageII:Enhanced Presence	7
StageIII:Interactive Presence	4
StageIV:Transactional Presence	5
StageV:Networked Presence	3

IV.   DATA ANALYSIS

The data for this study were obtained from an assessment of the Malaysian local authorities websites or portals in 2012. The assessment was based on the official local government websites or portals covering all the 14 states in Malaysia . The scoring process was based on whether the indicators as stipulated in the WPMM are present or absent. In the case where indicators are present they will be provided with an appropriate weighting as stipulated above.

Table 3 shows the scores obtained from an assessment of the City councils websites/portals in Malaysia. Not all states in Malaysia have their own City councils. Only 9 states are represented with City councils. In cases where the City council operates it can be seen that all have passed Stage I : Emerging Presence, while in Stage II : Enhanced Presence two City councils operating in the states of Sabah and   Sarawak   have 70% and 80 %   achievement respectively which means that there are certain indicators in the Stage II that are absent. All the City councils have passed Stage III : Interactive Presence while in Stage IV : Transactional Presence the City council of Selangor has the highest achievement of 100%. However for the Stage V : Networked Presence all the City councils achieved a high score of 100%.   They have incorporated in their websites social network facilities such as Facebook, Twitter and blogs. Table 3 shows the data for the top three and bottom three of the City Councils.

It is important to note that in a study conducted by [13] on the implementation of eGovernment at the Federal, State and Local Government levels in 2010 the performance of agencies under the local government in respect of Stage V :

Networked Presence was very poor and low in percentages as they have not integrated in their websites the social network facilities. As such we find nowadays the trend among the local authorities websites is to include Facebook and/or Twitter in their websites.

TABLE 3 : SCORING WEIGHTING FOR CITY COUNCIL WEBSITES/PORTALS

Stages	Fed Ter	Slg	Kdah	Tgg	Sbah	Swak
Stage I	100%	100%	100%	100%	100%	100%
Stage II	100%	100%	100%	100%	70%	80%
Stage III	100%	100%	100%	100%	100%	100%
Stage IV	80%	100%	60%	40%	20%	40%
Stage V	100%	100%	100%	100%	100%	100%

Table 4 shows the scores obtained from an assessment of the Municipal council websites/portals in Malaysia All states in Malaysia except for the Federal Territory have their own Municipal councils. These Municipal councils usually operate in the main towns of the States. As expected their scope of operations are much smaller than the City councils and as such their achievements would be likely less than that of the City councils. As shown in Table 4 there are several Municipal councils websites/portals that have not passed Stage II especially in the States of Sabah and Sarawak where they manage to achieve 60% and 80% respectively. Table 4 shows the data for the top three and bottom three of the Municipal Councils

TABLE 4 : SCORING WEIGHTING FOR MUNICIPAL COUNCIL WEBSITES/PORTALS

Stages	Perak	Slg	Kdah	Tgg	Sbah	Swak
Stage I	100%	100%	100%	100%	100%	100%
Stage II	100%	100%	100%	100%	60%	80%
Stage III	100%	100%	100%	100%	80%	100%
Stage IV	60%	80%	60%	40%	60%	40%
Stage V	100%	100%	100%	80%	100%	80%

In the case of Stage IV, Table 4 shows that not a single Municipal Councils websites/portals obtained achievements

of 100 % which means that there are several indicators that are absent from their websites.

For stage V, the Municipal councils websites/portals achievement are almost similar to that of the City councils achievements at 100 %. They also used social network facilities to improve their standing.

Table 5 shows that even at Stage I the District Councils websites/portals have not obtained 100 % achievement. The State of Sarawak has obtained an achievement of only 80 % while all the Malaysian states that have City Councils and Municipal Councils have an achievement of 100% which means that all the indicators in Stage I are present in their websites.

Table 5 also shows for Stage III the District councils websites/portals of the State of Sabah and Sarawak, obtained the lowest achievement of 80%. In the case of Stage IV the achievement of the District councils websites/portals are relatively lower than the City councils and Municipal councils websites/portals and in the case of the District council of Sarawak websites they obtained merely 20 % achievement which means four out of the five indicators are absent from the websites. In respect of Stage V the number of indicators present in the District council websites/portals are almost similar to those exhibited by the City councils and Municipal councils .websites/portals except for the case of District Councils of Sabah and Terengganu.

TABLE 5 : SCORING WEIGHTING FOR DISTRICT COUNCIL WEBSITES/PORTALS

Stages	Joh	Slg	Kdah	Tgg	Sbah	Swak
Stage I	100%	100%	100%	100%	100%	80%
Stage II	100%	100%	100%	100%	100%	100%
Stage III	100%	100%	100%	100%	80%	80%
Stage IV	80%	80%	60%	40%	40%	20%
Stage V	100%	100%	100%	40%	40%	100%

V. CONCLUSION

Based on the findings we can infer that the success story in the case of Malaysia's eGovernment implementation for local authorities is up to the level of City councils

websites/portals. It is also shown that States with a high income capita such as Selangor are high achievers while poor States such as Sabah are low achievers. This sort of indicate that local authorities with money to spend can develop their websites/portals to a sophisticated level of maturity while other less fortunate States could only provide the barest minimum for their websites/portals as in the case of Sabah. The Web Presence Measurement Model is a useful tool in identifying the presence or absence of certain indicators which are related to the measures of sophistication or maturity of the websites as exemplified in this study. Having identified the shortcomings the relevant authorities especially MAMPU, the agency responsible for enforcing eGovernment initiatives, should take steps to improve the situation of the public sector websites especially related to local authorities operating at State level.

REFERENCES

[1] A. B. Abu Bakar, Evaluation of Federal and State e-Government websites in Malaysia", Proceedings of the 4th International Conference on e –Government, RMIT University, Melbourne., 2008.

[2] United Nations . E-Government Survey 2012. New York.

[3] S.A. Hazman, "From customer satisfaction to citizen satisfaction: Rethinking local government service delivery", Paper presented at the Service delivery by local authorities: Issues and Challenges conference, Malaysia,2006.

[4] S.Y. Moon " The utilization of the Internet technology in the Public Services of Korea". Proceedings of the EROPA Hong Kong Conference, 2000..

[5] K.Schedler and L. Summermatter "E-Government: What Countries Do and Why: A European Perspective", *Journal of Political Marketing*, 2 (3/4),2003, pp255-277.

[6] M.Z.A.Rozan,. and Y. Mikami, " An exploratory analysis of 200 Malaysian Enterprise websites based on Web Presence Measurement Model (WPMM)". Proceedings of the International Conference on E-commerce, Subang, Malaysia,2006.

[7]MCMC. "Facts and figures: A report" http://www.skmm.gov.my/facts_figures/stats/index.asp,2008. Retrieved on October 15, 2012.

[8] ITU "Malaysia: Internet Usage Stats and Marketing Report 2010 " http://www.internetworldstats.com/asia/my.htm. Retrieved on October 20, 2012.

[9] UNDPEPA "Benchmarking E-Government:; A global perspective", 2002 http://www.unpan.org/egovernment2.asp. Retrieved on September 17, 2012.

[10] M. Benjamin and E. Whitley, " Assessing UK E-Government Websites : Classification and Benchmarking" Proceedings of the 12th European Conference on Information Systems, Turku, Finland,2004.

[11] A. B. Abu Bakar, Evaluation of eGovernment Implementation at Federal, State and Local government levels in Malaysia, " Proceedings of European Conference on eGovernment, Ljubljana,Slovenia, 16-17 June 2010.

[12] Extracted from the UN Global E-government Survey 2003. http://unpan1.un.org/intradoc/groups/public/documents/un/unpan016066.pdf. Retrieved on September 9, 2012.

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