e-Government: Online Service Delivery Evaluation in Pahang

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ABSTRACT

In order to be a developed country, a country must have a good economic status, i.e. income per capita as well as technology adoption. Thus, the level of e-government implementation is also one indicator that a country is to be a developed country one day. Tun Mahathir in his mission to bring this country to a higher level of global acceptance introduced MSC in 1996 with seven proudly presented flagships. After 13 years, we have seen so much improvement and paradigm shift in running our government's administrative activities. The migration from paper-based service to electronic version is well underway and enormous potential of e-government application being implemented. To look at e-government success, assessments are often conducted at the international and national level. Therefore, on that pretext, the writers feel that there is also a need to look at the local or state level as well because it does contribute to upholding what has been planned at the higher level. This paper assesses the current state of Pahang online service delivery system and the level of acceptance and satisfaction towards the services offered by Pahang state government in meeting the national e-government requirements.

Key words: *online service delivery, e-government, evaluation, citizen satisfaction*

Introduction

The internet changes everything. It changes the economy, education, community, individualism, and democracy (Kamarck & Nye, 1999 in West (2004)). New technologies enhance communication by overcoming geographical distance, promoting ideological variety, opening citizens to more diverse viewpoints, and encouraging deliberation (Thompson, 1999). The internet saves a lot of cost and time. With the internet comes the websites which then integrate information and service offerings. The websites offer the prospect of considerable change in how the public sector functions and transforms the office.

e-Government

Basically, e-government refers to the delivery of government information and services online through the internet or other formations and services online through the internet or other digital means (West, 2000). Unlike traditional structures, which are hierarchical, linear and one-way, internet delivery systems are nonhierarchical, nonlinear, two-way and available 24 hours a day, seven days a week. The non-hierarchical character of internet delivery frees citizens to seek information at their own convenience, not just when a government office is open. The interactive aspects of e-government allow both citizens and bureaucrats to send and receive information. By facilitating two-way interaction, electronic governance has been hailed as a way

to improve service delivery and responsiveness to citizens, in the long run generating greater public confidence in government (Gore, 1993; Markoff, 2000; Raney, 2000).

According to Brown University, e-government is a very good example of technology usage in communication. Its ultimate goal is to provide citizens with services and, thus, it needs to be well-designed, easy to navigate and accessible to a wide variety of users. Furthermore, Gil-Garcia & Martinez-Moyano (2007) suggest that e-government is neither a homogeneous nor a static phenomenon. Recent empirical studies have identified two important dynamics in e-government evolution. First, e-government in general has evolved from its initial presence on the internet (i.e. giving static information) to more transactional and integrated applications (i.e. downloadable forms/documents/payment etc). Secondly, at the aggregate level and as a general trend, national governments have started adding technological and organizational sophistication where state and local governments have to follow.

No matter what, e-government implementation enhances government service to facilitate the public. It provides better transparency, saves a lot of waiting time and travelling time, thus, is definitely more cost effective.

Malaysian e-Government

The Malaysian government is trying its best to provide her citizens with the best possible services. Malaysia has a total of 1,133 portals and websites consisting of 442 federal sites, 681 states, six (6) Electronic Government Telehealth Flagship Applications and four (4) other sites, namely myGovernment (myGov), Portal Pusat Maklumat Rakyat (MR), Khazanah Nasional and eKL. New categories tabulated in e-government portals/websites are the Statutory Bodies, Local Authorities, District and Land Offices as well as Universities (MDeC, 2007). This is an addition to the existing categories which are federal, ministry, state, FCC members as well as EG & TH Flagship applications. Thus, with these many online systems and applications, the government is gradually moving from paper-based to paperless service.

The transformation of such service from paper-based to electronic version has opened wide the potential of e-government application (Welling & Wei, (2004) in Sidi & Nizam, 2007). Hence, all the state governments in Malaysia have started to have their online presence and developing the best that they could give to the public. However, designing a credible government website needs efforts from many individuals and becomes a fairly complicated matter.

This paper assesses the current state of Pahang online service delivery system and the level of users' satisfaction towards the online services offered by the Pahang State Government.

Research Framework

Global e-Government Ranking

In assessing the e-government progress and standards, two major educational institutions have been known to have the authority in such matter apart from other bodies. They are Brown University and Waseda University.

Brown University

In 2006, Malaysia has leaped from position 157 to 36, despite experiencing a decline in 2005. In the 2007 e-government report, Malaysia was highlighted as having a portal (myGov) that has links to many of the online complaint forms. In the BU report, sites were suggested to be well-designed, easy to navigate and accessible to a wide variety of users using standardizing templates with consistent navigation, having accessibility aids, listing when pages are being updated, organizing pages by user type, creating "most popular" lists, and having an online services menu and interactive technological assistance.

Waseda University

2005 and 2006 have illustrated the falloff of Malaysia from being in the Top 10 to being eliminated to Top 15. This is because other countries like Singapore, United States, France, Japan and Korea continue to climb up the rankings with more electronic transactions and processes made available to the citizens (MDeC, 2007). For example, in 2007, Singapore has more than 950 online services in her e-service portal. This shows that Singapore is really serious in giving better services to its citizen by enhancing online transaction. Table 1 is the Malaysian e-government ranking reported by MDeC Report (2007). The ranking given by the different four (4) bodies are based on four (4) different criteria but online services provided to the citizens is one of the criteria emphasized in the assessment.

Table 1: Overview of Malaysia e-government ranking from 2002 – 2007

2002	59/190	21/198	N/A	20/23
2003	43/191	8/198	N/A	18/22
2004	42/191	83/198	N/A	17/22
2005	43/191	157/198	9/23	19/22
2006	N/A	36/198	14/32	-
2007	N/A	25/198	15/32	14/22

Local e-Government Ranking Based On Portal/Website

Before going further into the discussion, Table 2 shows the existing top 10 ranking of the portal/websites of government agencies in Malaysia based on the main assessment ranking from MDeC 2007 (latest) Portal/Websites Assessment Report.

There are about 1,133 portal/website obtained from myGov portal, whereby each of the portals and websites are evaluated based on stipulated criteria and consequently divided into several categories ranging from federal, ministries and state government agencies. MDeC not only evaluates the portal/websites but also has given ranks based on these government agencies online services. These rankings are given based on the number of electronic services which the agencies provide to the public. Table 3 shows the top 10 list based on MDeC (2007) report as well as the state governments' ranking which shows that the Pahang State Government's online services is at number 134 compared to the rest of the government agencies.

Table 2: Malaysia e-government ranking

NO.	RANKING	PORTAL/WEBSITE	SCORE	STARS
1.	1	Ministry of Housing and Local Government	83	5
2.	2	myGovernment Portal	80	5
3.	2	Sarawak State	80	5
4.	3	Institute of Islamic Understanding Malaysia (IKIM)	79	4
5.	3	Ministry of Education	79	4
6.	4	Malaysian Administration Modernisation and Management Planning Unit (MAMPU)	77	4
7.	4	Penang State Secretarial	77	4
8.	4	Selangor State	77	4
9.	4	Subang Jaya Municipal Council	77	4
10.	5	Universiti Utara Malaysia (UUM)	77	4
11.	6	Ministry of Finance, Malaysia	75	4
12.	6	Merlimau Polytechnic	74	4
13.	7	Perbadanan Putrajaya	74	4
14.	7	City Hall of Kuala Lumpur	70	4
15.	7	Ministry of Domestic Trade and Consumer Affairs	70	4
16.	7	Ministry of Human Resources	70	4
32.	13	Johor State	62	4
45.	13	Penang State	62	4
152.	20	Pahang State	55	3
132	19	Melaka State	56	3
181.	22	Perak State	53	3
194.	23	Kedah State	51	3
393.	31	Sabah State	43	3
509.	36	Perlis State	38	2

Evaluation of Government Portal/Websites

In 2007, a total of 1,133 Malaysia Government portals and websites were assessed as opposed to 900 and 1,055 portals and websites in 2005 and 2006 respectively. By undertaking such assessment, it is envisaged that:

Malaysia could sustain and/or improve her e-government Global Ranking
More online services can be offered to the public via the portal/website and enhancing government service delivery, and
The initial objective of understanding the assessment to have the same "look and feel-portals and websites could be achieved.

Looking at the Pahang State Government's ranking, the writers took the initiatives to assess the current level of e-government satisfaction in Pahang, basically on her online service delivery system.

Table 3: Malaysia online service ranking

NO.	RANKING	PORTAL NAME
1.	1	Penang State
2.	2	Sepang Municipal Council
3.	2	Subang Jaya Municipal Council
4.	2	Kuala Selangor District Council
5.	2	Citi Hall of Kuala Lumpur
6.	2	Ministry of Domestic Trade and Consumer Affairs
7.	3	Kuantan Municipal Council
8.	3	Property and Land Management Division
9.	3	Ministry of Higher Education
10.	3	Road Transport Department
26.	4	Perak State
54.	7	Sarawak State
69.	9	Selangor State
80.	11	Sabah State
89.	12	Terengaanu State
132.	18	Johor State
134.	18	Pahang State

Scope of Study

The survey was conducted at the Pahang State Government Secretariat Office. An online survey was linked to the URL address of the office, www.pahang.gov.my for three (3) consecutive weeks with the possibilities of accepting 1,000 responses. www.pahang.gov.my is the official website for the state of Pahang and it links to all other state agencies. The survey was opened to the public/citizen/users who access the website to seek for information, download documents/ forms etc. Users should assess the website based on the services given, the overall presentation of the websites and give suggestions to improve the current website and its online services.

Research Methodology

The method used in this study was based on the previous MDeC evaluation of the online service. A set of questionnaire was designed and put up online. The questionnaires had four (4) categories, namely, the demographic section, user perception section, website presentation and suggestion section. The evaluation was quite similar with E-Qual evaluation which is often used in website quality evaluation but often adopted a format that suits the needs of the organisation. By adopting a previously developed and validated instrument, benefits accrue in the form of improved validity; the ability to compare results with the next studies can be a good movement towards building a cumulative tradition of research (Straub & Carlson, 1989; Malhotra & Grover, 1998).

The standard of E-Qual instrument previously called WebQual, contains 23 questions (Barnes and Vidgen, 2002). Since this instrument is used for government sector, therefore, the writers have altered the questionnaires to suit the situation. E-Qual has been under development since 1998 and has undergone numerous iterations. The development of E-Qual is based on research from three (3) core areas, i.e. information quality, usability and interaction and service

quality. Since this is an online survey, the writers feel that the questionnaires should not be too long for users to answer and, thus, it had only 21 short questions with 7 sub-questions.

Design of the Evaluation

The survey of the website quality and user satisfaction for Pahang State Secretariat Office in Kuantan was conducted using the internet-based questionnaire put up online for one-month for the public to answer and give opinions. The homepage of the website has instructions and guidelines for the users to complete the questionnaires and provide the link to the URL address of the survey.

Analysis and Discussion of Quantitative Results

The survey was put up for the period of almost one month. However, only 40 respondents responded. These respondents come from various backgrounds and area in Pahang. The questionnaires are as in Table 4 below.

Table 4: Online survey questionnaire

1.	Demographic	I am working at
2.		I am working at Pahang state government
3.		I am living at
4.		Age
5.	Information/service quality	I browse the website because
6.		Latest information can be accessed
7.		Quality online service
8.		Response from officers
9.		Quality of overall dept online service delivery
10.	Accessibility	I browse the website from
11.		Ease to access website
12.		Time taken to access website
13.	Usability	I always used online transaction to pay online
14.		Opinion of number of online service
15.	Website design	Colour
16.		Arrangement
17.		Text
18.		Overall design
19.	Satisfaction	Level of satisfaction on the website
20.	Recommendation	Suggestions to improve

Analysis and Discussion of Qualitative Results

This section will discuss the results of the survey using a variety of statistical methods for data analysis.

Discussion of Summary Data

There seems to be a lack of encouragement in browsing the website or users who answered the survey questions. This is evident from only 38 respondents answered the survey which was put up for almost one month. The writers were able to put the data into a reliability test, using the Alpha Cronbach test and obtained 0.63 for the users' responses. Table 5 is the table produced by SPSS v15.0. The statistics shows that the majority of the respondents of Pahang.gov.my website are satisfied with the website as higher percentage is shown on the 'agree' and 'strongly agree' columns. On the other sections shown in Table 6, the writers look at the satisfaction on the online service provided by the website.

Table 5: Users satisfaction on Pahang.gov.my website - Crosstab statistics

1.	Website have attractive background and colour	2.6	20.5	12.8	56.4	7.7	100
2.	Information on the website are properly arranged	2.6	2.6	10.3	74.2	10.3	100
3.	Arrangement of information is easily understood	2.6	12.8	20.5	56.4	7.7	100
4.	Text colour enhanced readability	2.6	0	5.1	71.8	20.5	100
5.	Text size is suitable	2.6	2.6	10.3	66.5	18.0	100
6.	Overall design of website is attractive	0	12.8	12.8	64.1	10.3	100

Table 6: Users' opinion on the online services provided at Pahang.gov.my website

1.	The online services provided are satisfactory	-	15.4	35.9	30.8	12.8
2.	The online services provided should be improved	2.6	12.8	17.9	35.9	28.2

Statistics shows that even though 43.6 % of the respondents are satisfied with Pahang State Secretariat website (Pahang.gov.my) online services, 64.1% (the majority of the users) still feel that it should be improved. The other 35.9% who are not sure whether the online services provided are satisfactory also represents the 33.3% who responded that the online service should not be improved. One possible reason to this could be that they have not experienced or been exposed to the online services provided by other government websites.

Discussion on Qualitative Data

In questions 20 and 21 respondents are asked to give reasons if they are not satisfied with the online services provided by Pahang State Secretariat Office and would like to suggest improvement in the services. Among the reasons for dissatisfaction received are stated in Table 7. 35.9% of the respondents did not give any comments on this question because they may only browse for specific information and seldom browse other government websites. Therefore, they do not know what type of services that are lacking at Pahang.gov.my website. This can be further shown in Table 8 below. On the other hand, the result from Table 7, shows that 43.7% respondents gave positive response when they stated that they need more or better online application/services on the website while the other 2.6% stated that the services which Pahang.gov.my lacks (during the research) should also be integrated with other Pahang government agencies' websites.

Table 7: Qualitative responses given by respondents on reasons for being dissatisfied with the online services provided on Pahang.gov.my website.

1.	Website should be more interactive	23.1%
2.	Need to increase number of online services for the public	10.3%
3.	Not much online application if compared to other organizations' website	7.7%
4.	System provided is too classic	2.6%
5.	No integrated services provided	2.6%
6.	System provided is not effective enough for the users	2.6%
7.	Access is too slow	5.2%
8.	A lot of the links are not functional or broken link	2.6%
9.	Sometimes information sought after is not provided	2.6%
10.	"Latest News" section is not the 'latest news'	2.6%
11.	No downloadable forms for those seeking for a job.	2.6%
12.	No comment	35.9%

Table 8: Description for browsing Pahang.gov.my website

1.	Getting information	87.2
2.	Download forms	30.6
3.	Download documents	23.1
4.	Online services (i.e. registration etc)	23.1
5.	Online payment	12.8
6.	Getting latest news	61.6
7.	Others	7.7

Other findings that need to be highlighted are 2.6% respondents felt that there are many broken links, and 2.6% stated that the latest news section actually are not the latest updates of current happenings/activities in Pahang. More expert users may explore the potentials of a websites, thus, have explored the website further for possible services and information. This type of users realise what feature needs to be added or enhanced on a website. On the other hand, job seekers (unemployed) are frustrated to find out that the application forms for job vacancies are not provided online. They may feel that they do not need to make unnecessary trip to the office to get the forms themselves. This actually defeats the core purpose on establishing e-government in the first place. Even though the figure is small, they represent crucial element for website improvement.

For question no. 21, 12.9% respondents suggested that Pahang.gov.my should have more online services/application while 2.6% suggested that it should learn from other government organisations in this country to improve or modify the system provided, thus, become more innovative and creative. Apart from this, there are also suggestions to use more state-of-the-art ICT tools to help enhance the website and make sure Pahang government employees use the online service system for official or non-official matters to reduce time and cost.

An unemployed respondent specifically requested for job application forms to be included in the online system to facilitate the citizen in filling up for vacancies in the state of Pahang. There is also a need to have an online registration for those who want to register their name on SPA8 to facilitate job application matters in the Pahang state government offices. When this is possible, these people can check the status of their application rather than having to wait for a reply or having to make a phone call to the specific office. This feature is especially important for the unemployed people in Pahang.

There is also a need to enhance citizens' knowledge and awareness on the needs and importance of having a good online service delivery system to help them in their daily routine. Another suggestion received is to ensure there is a professional assistance in developing and maintaining government websites to ensure better quality service can be provided.

Summary and Conclusion

Evidence from the last Malaysia's Portals and Websites Assessment in 2007 showed that Pahang was ranked at number 20, positioned at 132, placing below seven (7) other states in Malaysia namely Selangor, Perak, Sarawak, Selangor, Sabah, Johor and Terengganu. Pahang's effort in implementing e-government and providing better services to its people should be applauded. However, more joint-efforts from the IT staff, the top management and state government is important to make it successful. On top of everything else, feedbacks from the public are crucial

for providing better and improved online services. It is Pahang's vision to achieve service excellence, therefore, the government should be committed to transforming the way in which the public interacts with the government.

The Pahang State Government's website still has areas to improve. Thus, comments given by good intention citizens should be taken into considerations. The current development of ECER and the coming Oil, Gas and Maritime project which will be taking place in Pekan absolutely demand better government services. e-government implementation will provide those potential investors and job-seekers an easy access to information and all the required services without having to be present at those government offices. This will definitely lead to more efficient and effective management practices as it requires less effort and time for both government and public. There will be no long waiting lines or queues at government offices because people will access information and services at their convenience either from home or workplace. Consequently, this saves the government and the public time and money, probably less traffic congestion, too.

The more online services provided by the government, the more beneficial it will be to the overall development of the state, and this, in the end, will increase the knowledge and overall human capital value of the people of Pahang Darul Makmur.

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