

## Customer Satisfaction in Municipal Services: An Empirical Study in Majlis Perbandaran Sungai Petani (MPSPK)

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**Abstract**—Malaysia has launched the multimedia super corridor (MSC) and one of MSC Flagship Application is e-Government. The e-government initiatives done by Malaysia's government began in 1997, with the launched of MSC's e-Government Flagship Application (Malaysia ICT, 2009). It means that, until now the implementation of the e-Government is 13 years. According to Malaysia ICT (2009), the main focus of e-Government is to provide efficient and effective government delivery services to the Malaysians through internet, kiosk, Interactive Voice Response (IVR) or telephone or mobile phone. They can easily access the services and fulfill their requirement smoothly without any disruptions. But there are some customers believe that the e-services do not make their work easier but the obstacles against the use of e-services, largest number of respondents said that they have no internet access or those do not know how to use the internet. Thus, this research is try to investigate to what extent the customer satisfaction towards the implementation of the e-services and to examine the relationship between independent variables and customer satisfaction towards e-services in Majlis Perbandaran Sungai Petani, Kedah (MPSPK). This study was done in Sungai Petani area of Kedah. The total respondents are 230 customers at Sungai Petani where the respondents were selected randomly. The study uses Descriptive Statistic, Pearson Correlation and Cronbach's Alpha in order to analyze the data gathered by using Statistical Package for Social Sciences (SPSS). The result indicates that there is a significant relationship between customer satisfaction towards e-services and ease of use, trust, and privacy and security. In recommendation, the research suggests the links and direction

to use the e-services in the MPSPK's website must be easy to access in creating the user-friendly website for customer's uses. Furthermore, the research suggests MPSPK should promotes their e-services in wide scale to be a friendly website and feel secure in doing transaction. In future research, more variables should be study in e-services matters such as experience, information literacy, reliability, system availability, responsiveness and empathy by putting more value added of e-services implementation. With that, it hopes can increase the customer satisfaction to MPSPK as well as other government agencies at large.

**Keywords**—e-government, e-services, Government, Customer, Satisfaction, Local Government

### I. INTRODUCTION

Since the revolution of information and communication technologies (ICTs) widely across the world, 173 out of 190 countries, use ICTs to deliver the government services like Internet in order to increase efficiency and effectively in delivering the electronic Government (e-Government) information and services by reducing the cost and also provide the higher quality of service (Maria and Bo, 2008) [1]. The e-Government practices also take place in the countries such as the UK and in the 1980s and 1980s; many of the local governments in countries like Australia also made the changes.

Furthermore, government of Malaysia has launched the multimedia super corridor (MSC) and one of MSC Flagship

Application is e-Government. The e-government initiatives done by Malaysia's government began in 1997, with the launched of MSC's e-Government Flagship Application (Malaysia ICT, 2009). It means that, until now the implementation of the e-Government is 13 years. According to Malaysia ICT (2009), the main focus of e-Government is to provide efficient and effective government delivery services to the Malaysians through internet, kiosk, Interactive Voice Response (IVR) or telephone or mobile phone and government can respond to the needs and demand of the citizens. E-services are one of the seven pilot projects of the e-Government Flagship Application. E-services in the public sectors have been generally undertaken in the wider framework of governmental electronic services (e-government) (Alessandro, 2005) [2]. The e-services is a term of services that conducted over the electronic networks such as Internet and wireless network as well as electronic environments like ATMs, Kiosk and others (Rust and Kannan, 2003) [3].

In addition, e-services also known as internet-based customer service that can improve the service levels and increase the customers' loyalty, hence can save the money (Thompson, 2002) [4]. For the purpose of this research, the researchers only concentrated on the e-services and want to know to what extend the perception among the public after 13 years of its adoption in Sungai Petani area. Gathering of public perception remains to be one of the most crucial initial undertakings that would dictate for the deployment of e-government programs (Qurban and Austria, 2008) [5].

This research is to investigate the public perception towards the e-services provided in MPSPK. So, the factors are ease of use, trust, and privacy and security can determine whether the publics are satisfy or not with the e-services provided by the service providers. This research conducted in Majlis Perbandaran Sungai Petani, Kedah (MPSPK) and it is located in the middle town of Sungai Petani where is in Kedah area. MPSPK is a local authority that had adapted the e-services which is clearly stated in their website, <http://www.mpspk.gov.my/home>. The e-services provided by MPSPK for their customers are e-aduan, e-tanah, e-borang and e-bayaran. Their customers are consists of residents at Lembah Bujang, Sungai Petani, Semeling and other areas. Furthermore, this study is to identify whether the public may receive the full information about the e-services provided by MPSPK. The study is also to investigate what extend satisfaction towards the implementation of the e-services in MPSPK. On the other hand, this study also wants to examine the relationship between independent variables (factors influencing customer satisfaction towards e-services) and dependent variable (customer satisfaction).

## II. PROBLEM STATEMENT

The ease of use can be defined as when experience no difficulty or effort (Cambridge Advance Learner's Dictionary, 2003) [6] in using the e-services by the

customers. They can easily access the services and fulfill their requirement smoothly without any disruptions. But when, there are some customers believe that the e-services does not make their work easier. Finally, when asked about the obstacles against the use of e-services, largest number of respondents said that they have no internet access or those do not know how to use the internet (Secretariat of the Latvian Minister 2005) [7].

The reason of the different educational background had by every customer can be an indicator on how they do not know how to use the internet. The generation who are exposing to the information technology or technology environment will not have any problems in using the internet but those who are unsighted to the technology will face that problem. There are also have respondent mentioned that the website did not work correctly and they could not find the required information. Other than that, they mentioned that the e-services were not really easy to use because the process of downloading and accessing times are slow such as to download any kind of forms and navigation were difficult and took for a long time (Mehdi Asgharkhani, 2005) [8].

Trust or also can be known as trustworthiness are customers' perceptions of particular attributes of e-vendors including the abilities, integrity and benevolence exhibited by the vendors when they handle the customers' transaction. The trust in business to business (B2B) e-commerce is more difficult to establish than in traditional business, since there are even more barriers to overcome (Ming Wang, 2003) [9]. The government needs to build trust on the people to make them have the intention and believe in using e-services. The customers will not use the e-services and more likely will not feel satisfied with the services provided by the government through the internet if they don't have the trust on the e-services. When survey made by and asked the respondents what concerns by them about the e-services, most of them said that they cannot be sure that the documents which they file have been received (Secretariat of the Latvian Minister 2005) [7].

Besides, there also indicated that they do not really trust the e-services provider has control to protect their financial and personal information, and concern about the act of sending their private information via the internet. Furthermore, they as well as do not trust and confident of the information exchange especially made any payment through internet or online payment (Jasber Kaur and Noor Dalila Noor Rashid, 2008) [10].

The issue that usually arose related with the e-services is about security when doing online transaction. In fact, the vital for the customers to use the e-services is only accessing to secure electronic services (Ulf Melin and Karin Axelsson, 2009) [11]. The technical issues of security often become a problem for both customers and suppliers. For the suppliers, this problem occurred when they are implemented

e-procurement which is referring to the process of purchase goods and services for the organization via Internet in their business. The security features in the e-procurement is important to maintain the integrity of the organization's information networks. The problem is this feature was regularly found that firewalls prevented the conduction of electronic payment (Croom and Johnston, 2003) [12]. As the fast growing of technology in information processing and its complexity had made the privacy become the important issues nowadays. The lack of privacy can increase the customers distrust to the technology as to how personal data is being gathered and processed through online transaction and as the result the privacy is becoming a major barrier to widen e-commerce. Also, the problem like lack of security experienced by the online customers is the obstacle to the development of the e-commerce (Luis, Carlos and Miguel, 2007) [13].

The security problems are not only attacked in the overseas but also happened in our country, Malaysia especially on Information Technology (IT) security is became more complex and complicated. The threat is also growing faster as the increasing the number of business operated (PR Web, 2008) [14].

### III. METHOD AND MATERIALS

A cross-sectional survey was conducted Majlis Perbandaran Sungai Petani (MPSPK) from December 2009 until April 2010 using a quantitative method towards respondents. A total of 230 respondents were selected as respondents due to larger size of population. The data was analyzed using statistical Statistical Package for the Social Science (SPSS) in getting data and information. By this SPSS, the researchers used Descriptive Statistic, Correlation and Cronbach Alpha.

### IV. RESULTS AND DISCUSSIONS

#### A. Profile of Respondents

In this sections, discussed about the profile of respondents that consist of gender, age, race, occupations, and knowledge about the e-services in MPSPK, preference method used during transaction and experience in using the e-services in MPSPK. The female is the highest number of respondents which is 185 80.4% (n=185) and male is less which indicates 19.6% (n=45) respondents. The majority of the respondents came from Malay background which is 205 89.1% (n=205) respondents, followed by Chinese 16 7.0% (n=16) respondents and Indian which is only 3.9% (n=9) respondents. The age less than 25 years old is the highest respondents for this study which is 45.7% (n=105) respondents, followed by the age of 25 – 30 and 31 – 40 years old which is 35 15.2% (n=35) respondents respectively, the age of 41 -50 years old which is 13.9% (n=32) respondents, the age of 51 – 60 years old which is

7.0% (n=16) respondents and the age of 60 years old and above is 3.0% (n=7) respondents. The majority of respondents are government servants which is 27.8% (n=64) respondents, followed by businessman/women is 25.2% (n=58) respondents, private sector is 22.6% (n=52) respondents and not working is 3.5% (n=31) respondents. Finally, the respondents which are students indicate 10.9% (n=25) respondents.

Table I, it shows the frequency and percentage of the knowledge on the e-services provided in MPSPK among the respondents. Majority of the respondents did not know about the e-services provided by MPSPK which indicated 72.2% (n=166) respondents. Only 27.8% (n=64) respondents know about the e-services provided in MPSPK.

TABLE I. KNOWLEDGE ABOUT E-SERVICES AT MPSPK

Knowledge of e- services at MPSPK	Frequency	Percent
Yes	64	27.8
No	166	72.2
Total	230	100.0

Indicated in the Table II, the table explains about the frequency and percentage of the preference method used by the respondents when doing the transaction. Most of the respondents indicate 54.8% (n=126) were chose counter to make their transaction while 45.2% (n=104) respondents more prefer by using online when doing transaction.

TABLE II. PREFERENCE METHOD USED

Preference method used	Frequency	Percent
Online	104	45.2
Counter	126	54.8
Total	230	100.0

Based on the Table III, it shows the frequency and percentage of the respondents' experience in using e-services provided in MPSPK. 82.6% (n=190) respondents never use that e-services and only 17.4% (n=40) respondents had experience in using that services.

TABLE III. EXPERIENCE IN USING E-SERVICES IN MPSPK

Experience	Frequency	Percent
Yes	40	17.4
No	190	82.6
Total	230	100.0

#### B. Result of Findings

##### • Hypothesis 1 Ease of use

H1: There is a significant relationship between the ease of use and the customer satisfaction towards e-services in Majlis Perbandaran Sungai Petani, Kedah (MPSPK).

Table IV shows there is a significant relationship between customer satisfaction and ease of use, where  $p < 0.01$  ( $p = 0.000$ ) and  $r = 0.532$ . According to Cohen's model  $r = 0.532$  belong to the large correlation category, hence there is a large positive correlation between the ease of use and customer satisfaction. Therefore, the researchers do accept H1.

TABLE IV. RELATIONSHIP BETWEEN CUSTOMER SATISFACTION AND EASE OF USE

		Customer Satisfaction	Ease of Use
Ease of Use	Pearson Correlation	.532**	1
	Sig. (2-tailed)	.000	
	N	230	230

\*\*Correlation is significant at the 0.01 level (2-tailed)

### • Hypothesis 2 Trust

H1: There is a significant relationship between the trust and the customer satisfaction towards e-services in Majlis Perbandaran Sungai Petani, Kedah (MPSPK).

Table V shows there is a significant relationship between customer between customer satisfaction and trust, where  $p < 0.01$  ( $p = 0.000$ ) and  $r = 0.462$ . According to Cohen's model  $r = 0.462$  belong to the medium correlation category, hence there is a medium positive correlation between the trust and customer satisfaction. As a result, therefore, the researchers do accept H1.

TABLE V. RELATIONSHIP BETWEEN CUSTOMER SATISFACTION AND TRUST

		Customer Satisfaction	Trust
Trust	Pearson Correlation	.462**	1
	Sig. (2-tailed)	.000	
	N	230	230

\*\*Correlation is significant at the 0.01 level (2-tailed)

### • Hypothesis 3 Privacy and Security

H1: There is a significant relationship between the privacy and security and the customer satisfaction towards e-services in Majlis Perbandaran Sungai Petani, Kedah (MPSPK).

Table VI shows there is a significant relationship between customer satisfaction and privacy and security, where  $p < 0.05$  ( $p = 0.034$ ) and  $r = 0.140$ . According to Cohen's model  $r = 0.140$  belong to the small correlation category, hence there is a small positive correlation between the privacy and security with customer satisfaction. As a result, therefore, the researchers do accept H1.

TABLE VI. RELATIONSHIP BETWEEN CUSTOMER SATISFACTION AND PRIVACY AND SECURITY

		Customer Satisfaction	Privacy and security
Privacy and security	Pearson Correlation	.140*	1
	Sig. (2-tailed)	.034	
	N	230	230

\*Correlation is significant at the 0.05 level (2-tailed).

## V. CONCLUSION

The study conclude that all of three objectives which are to identify whether ease of use, privacy and security and trust of the e-services in MPSPK contribute to the customers satisfaction have been answered by this research. Hence, all of three factors of customer satisfaction which is ease of use, privacy and security and trust were strongly contributed to customer satisfaction toward e-services in MPSPK. The study recommended for MPSPK to create a friendly website to help customers easy to access into their website. Indirectly, they can promote the e-services at large scale to the customers. In future research, the scope of e-services matters can be extent into the big area and focusing into all agencies besides of local government.

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## REFERENCES

- [1] Maria A. kesson and Bo Edvardsson. (2008). Effect of e-government on service design as perceived by employees. *Managing Service Quality* 18(5), pp.457-478.
- [2] Alessandro Ancarani. (2005). Towards quality e-service in the public sector: The evolution of web sites in the local public service sector. *Managing Service Quality* 15(1), pp. 623.
- [3] Roland T. Rust and Kannan P.K. (2003). E-service: A new paradigm for business in the electronic environment. *Communication of the ACM* 46(6).
- [4] Bob Thompson. (2002). eService: Strategies for success in the customer age. Rightnow Technologies.
- [5] Qurban, H. M., Austria, R.D., (2008). Public Perception on E-health Services: Implications of Preliminary Findings of KFMMC for Military Hospitals in KSA.
- [6] Cambridge Advance Learner's Dictionary. (ed 2003) Cambridge University Press. pp 1371.
- [7] Secretariat of the Latvian Minister. (2005). The availability and effectiveness of electronic services in Latvia.
- [8] Asgarkhani, M. (2005). The effectiveness of e-services in local government: a case study. *The Electronic Journal of e-Government* 3(4), pp.157-166.
- [9] Min Wang. (2003). Assessment of e-services quality via e-satisfaction in e-commerce globalization. *The Electronic Journal on Information System in Developing Countries* 11(10), pp. 1-4.

- [10] Kaur, J. and Noor Rashid. (2008). Malaysian electronic government adoption barriers. Faculty of Information Technology and Quantitative Science, UiTM Shah Alam.
- [11] Ulf Melin and Karin Axelsson (2009). Managing e-service development-comparing two e-government case studies. *Transforming Government: People, Process and Policy* 3(3), 2009, pp.248-270
- [12] Simon Croom and Robert Johnston. (2003). E-service:enhancing internal customer service through e-procurement. *International Journal of Service Industry Management* 14(5), pp. 539-555
- [13] Luis V. Casalo', Carlos Flavia'n and Miguel Guinali'u. (2007). The role of security, privacy, usability and reputation in the development of online banking. *Online Information Review* 31(5), pp. 583-603.
- [14] PR Web. (2008). Growing IT security concerns stimulates forum attendance. Retrieved January 30, 2010, from [http://www.mscmalaysia.my/main\\_art.php?CategoryID=5&parentID=12073056649982&artID=12082571684963&p\\_artID=264](http://www.mscmalaysia.my/main_art.php?CategoryID=5&parentID=12073056649982&artID=12082571684963&p_artID=264)