

CHAPTER 5: CONCLUSION AND RECOMMENDATIONS

5.1 INTRODUCTION

This chapter summarizes the findings of the study and deliberates its conclusion and limitations. Suggestions for future research as well as recommendations to IRB are made. Finally the research's implications are then analyzed.

5.2 SUMMARY AND CONCLUSION

The importance of successful implementation of e-government has promoted streams of research. Study by Belanger and Hiller (2006) examined the privacy implication on e-government framework, while Teo et al. (2008) focus on role of trust on e-government success and Gauld et al. (2009) studied the responsiveness of e-government. Meanwhile since 2003 (the year Featherman and Pavlou (2003) published their study) a number of research has highlighted the importance of understanding the effect of perceived risk on: e-commerce (Pavlou, 2003), e-service (Featherman and Fuller, 2003 and Featherman et al., 2006) and e-government (Hung et al., 2006 and Horst et al., 2007).

The contributions of this study are threefold. First, it increases our understanding of the determinants of e-Government services acceptance. Second, it provides

an explanatory framework of the types of risks that are salient to taxpayers together with the factors from TAM model, perceived ease of use and perceived usefulness. Third, it provides support on different policies catering to different demographic factors that are used and will be used to promote e-government.

This study add to the field by examining effect of perceived risk (opposite of trust construct) on adoption intention and attempting to dive deeper into the construct and provide insight into its facets. It provided some preliminary evidence about the criteria that taxpayers used to evaluate their adoption of e-government.

As compared to the general population, this sample population was younger, well educated, more computer literate, and more comfortable with Internet-based transactions. These combined factors likely reduced risk levels or perception as compared to the general population. While this sample may not have perceived high levels of e-government inherent risk, each performance-based risk facet was nevertheless rated as very important by Malaysian taxpayers.

Result from this research finds that perceived risk comprises all the facets that has been examined by Featherman and Pavlou (2003), (1) performance, (2) psychological, (3) privacy and (4) time. It is important to note that this research did not include both social and financial risks. This is because these risks are not directly connected to the process of e-filing system. Malaysian taxpayers associated the following fear and uncertainties with e-filing; the loss of their

peace of mind (psychological), the fear of e-filing system not performing as it was designed and intended (performance) and the loss of their precious time invested in learning and adopting e-filing (time). The most important facet that taxpayer associate with the e-filing system is the fear of loss of control over personal information, such as when information about an individual is used without his or her knowledge or permission and the uncertainty that the information given during adoption of e-filing will be used to perform fraudulent practices (privacy risk).

Even though taxpayers realized that perceived risk associated with e-filing comprise of all the facets above, they are not letting that perception to affect their decision to adopt e-filing. They tend to have low inherent risk in their perception of the e-government initiatives. Furthermore many Malaysian even the so called well educated and computer savvy younger generation may not able to accurately gauge the meaning and probability of risk. The findings that PR may not be an important factor to taxpayers' adoption intentions is in contrast to the findings of Featherman and Pavlou (2003), but parallel to Fu et al. (2006) who found PR to be unimportant to Taiwanese taxpayers e-filing adoption behavior.

These results can also be explained using the global e-government constraints of e-government framework posited by Belanger and Hiller (2006). It can be deduced that Malaysian taxpayers are well aware of the constraints faced by their government in terms of laws, regulations and policies. The performance and

privacy risks associated with their e-filing adoption intention are protected within the Income Tax Act 1967. Possibility of aggregation of data collected, hidden data collection and other activities with serious privacy concerns were curtailed under the provision of the above Act. IRB has the obligation to report their data collection process, describe how the data will be used and strictly prohibited from trading the collected data with any third parties.

Furthermore, IRB's nationwide efforts to educate taxpayers in all matter e-filing including the precautions taken by IRB to reduce e-filing privacy and performance risks has been well received and seemed to reek with benefits. IRB has implemented the policy of giving talks, program or seminar concerning e-filing system primarily in order to educate Malaysian taxpayers and increase their acceptance of the e-service initiatives provided. These talks were given not only to big corporations in both the public and private sectors to target individual taxpayers but also to sole proprietors. Table 5.1 listed the number of talks given by IRB. This practice was implemented nationwide. Those efforts that started well before the introduction of e-filing system should continue into the future.

Table 5.1
Number of Talks given by IRB and Participant

	2006	2007	2008	2009
No of	3,575	3,560	3,764	3,661
No of Participant	267,552	172,854	270,969	222,351

The perception of usefulness of the e-filing system also does not have significant impact on Malaysian taxpayers' decision to adopt e-filing. This may be due to the fact that even though e-filing is full of benefits, they can easily switch back to the traditional method, manual without much effect on their performance within their organization. This research also found that Malaysian taxpayers' adoption intention will increase as they perceive that the e-filing system is easy, free of effort and convenience for them. Interestingly, Chang et al. (2005) not only found PU to be of no effect on adoption intention of their well educated and internet savvy respondents, they also deemed PEOU as an unimportant factor.

This result is the opposite of the result from Horst et al., (2006) that found with the absence of perception of ease of use, perception of usefulness of an electronic initiative in general is the main determinant of the intention to use e-government services. Similar to Horst et al. (2006), Fu et al. (2006) found that taxpayers tend to concentrate on the usefulness of a tax-filing method. Meanwhile Fu et al. (2006) also found the PEOU has significant effect on behavioral intention same as this current research.

Malaysia is a culturally diverse country and faces far greater challenges compared to homogeneous societies in formulating strategies to promote its electronic services. It is therefore important to understand the differences among the demographic characteristics of Malaysian taxpayers in order for effective

promotional schemes to be designed. This research explore the impact of gender, age, ethnic, education, experience (in years) on internet, availability of computer and network facilities and frequency of internet use on adoption intention of e-filing system as well as the perceived usefulness, perceived ease of use and perceived risk of e-filing system.

Ilias et al. (2009) found that the attitudes of taxpayers towards e-filing usage are insignificant across gender. Attitude is defined in terms of individual preferences and interests regarding the use of Internet tax-filing system. Attitude is one of important determinant in increase the level of behavior intention among taxpayers. This can be supported by Chang et al. (2005) that stated that attitude towards a particular system has a significant impact on adoption intention. This research found that taxpayers' attitude towards the usage of e-filing will be the same between male and female. However respondents' perception of risk was found to be different among male and female. This is consistent with Kruger and Nesse (2006) that found male generally and Nagaraj et al. (2008) that found Malaysian males specifically are more likely to engage in risk-taking behavior than their female counterpart.

Media outlets in terms of magazine publications are known to cater to the specific interest of different genders. IRB specifically and Malaysian government

agencies generally can use these channels to tailor promotional activities in promoting their electronic services. Publications such as Her World, Female, Wanita and Cosmopolitan have loyal female followings while their male counterpart is more incline to choose publications such as Men Health, PC World and Autosport.

Different ethnicity also has an impact on the perception of risk as it has been documented that Malaysian Malays are more risk averse as compared to their Chinese counterpart. In this instance, radio stations and newspaper publications are the appropriate channels to be used in order to strategically promote e-government services to different ethnic groups in Malaysian. Stations such as Klasik Nasional FM, Era FM, Hot FM and Sinar FM use Bahasa Melayu as their medium as well as newspaper publications Berita Harian, Harian Metro, Kosmo! and Utusan Malaysia. One FM, Ai FM and MY FM stations and China Press, Nanyang Siang Pau and Sin Chew Jit Poh newspapers meanwhile use the Chinese language as their medium. Other publications such as Malaysia Naban and Tamil Nesan cater to Tamil speaking Malaysian.

This study shows that education level plays an important role in increasing and improving taxpayers perception of ease of use of e-filing system as well as its' usefulness. The highest mean for both PEOU and PU are diploma and secondary school level. Taxpayers with the different level of education might

have different attitude because some of them have an exposure and high awareness in using e-Filing system due to their education background. They also assume that the difficulty of manual filing of taxation can be reduced when employing e-filing and e-filing would enhance their job performance. This finding is supported by Ilias et al. (2009).

In this study, it is found that there is significant difference in perception of ease of use between experienced and non-experienced taxpayers' in using the internet as well as frequency of Internet use. Taxpayers with zero years in Internet experience perceived the ease of the system differently than those with at least one year Internet experience. It is also true with the frequency of internet use by taxpayers. The more taxpayers use the internet, the easier they perceived e-filing to be. Experience in handling and transacting through the Internet plays a role in influencing the perception of e-filing ease of use and subsequently promoting the intention to adopt.

It can summarize that the learning experience with the Internet generally and e-filing specifically will provide taxpayers a confidence in adopting the system. Eventually, it will create a good attitude and intention to adopt. However, non-learners will assume differently if they are not receiving any exposure regarding the system. Taxpayers need to have a knowledge and exposure from IRB or professional body in encouraging them to e-file their tax returns. Obviously, IRB

needs to strengthen the understanding of e-Filing usage among taxpayers through program, seminar, workshop and any related event.

Currently, IRB has introduced Taxpayers' Awareness Months which is an annual IRB program where technical and expert supports are being provided by the board not only at their local branches but also through outside talks and seminars and conveniently located kiosks. Through this program, taxpayers will learn about income tax relief, rebates as well as how to use the e-Filing. This sort of program must be intensified in frequency especially at rural areas.

These findings have policy implications for the implementation of not only electronic tax-filing and but also e-government services. Understanding adoption factors can extend the understanding of taxpayers' decision making and lead to better strategies for a successful implementation of e-filing specifically and e-government generally.

5.2 LIMITATIONS OF THE RESEARCH

The findings of this research must be interpreted within certain limitations. Almost half of the respondents are those taxpayers who came to IRB offices in Federal Territory and Selangor during the early stages of Taxpayers' Awareness Months (February to April). First, the biasness may be in the form of digital divide which

is the gap between citizens with effective access to digital and information technology and those with very limited or no access at all. These unequal opportunity or access by some members of the society to information and communication technology and the unequal acquisition of related skills seriously dampen the technological readiness of general population to adopt e-filing. Their perception of risks and the type of risks that is salient to them may differ from this studied population.

Secondly, half of the sample is taxpayers that are willingly visit the IRB offices to seek advice and technical support. They can be called those who had sufficient knowledge about the e-filing system as well as the IRB. Thirdly, more than 90 percent of the respondents as those who earn a salary whereas sole proprietorships are not properly represented in this study.

5.3 SUGGESTIONS FOR FUTURE RESEARCH

Suggestions for future research stem from the limitations of this research. The limitations of this research include that the targeted population were considered relatively young, well educated and have years of experience in using the internet. Adoption behavior of respondents from rural areas together with those from urban areas should be explored in the future.

The theory of planned behavior (TPB) is an extension of the theory of reasoned action (TRA) and is used to investigate behavior prediction using attitudinal variables. Fu et al. (2006) support this suggestion as their model that integrates TAM and TPB accounted for more than 60 percent variance of taxpayers adoption intention. TPB incorporates subjective norms (perceptions that other people desire the individual to perform a particular way) and perceived behavioral control (internal and external constraints on the performing of the action) as direct determinants of behavioral intentions. Effect of positive attitude towards using e-filing and inclination to comply with other important people's opinions on adoption intention can be examined by using TPB. It is important to realize that the acceptance of e-Government services is not entirely under citizens' control as their belief can be affected by external and interpersonal influences. Furthermore individual's self-efficacy and facilitating resources as well as individual knowledge and facilitating resources are possible barriers to user acceptance of e-Government services. The integration of two important theories, TAM and TPB can effectively provide concrete managerial implications towards effective e-Government implementation.

Gefen et al. (2003) was among the first to integrate antecedents of TAM with the variable trust in their effort to explain consumers adoption behavior. While Pavlou (2003) and Pavlou and Fygenson (2006) integrated trust into e-commerce adoption model, Hung et al. (2006), Horst et al., (2006) and Teo et al. (2008) all focused on the role and impact of trust on e-government successful

implementation. Future researches can explore both aspects, positive and negative in terms of trust and risk and their impact on Malaysia's e-government adoption intention.

The use of SPSS applications (standard multiple regression, correlation, factor analysis) limit the ability to measure the construct and to explore the relationships between the variables. Structural Equation Modeling by AMOS used by Featherman and Pavlou (2003) is the better option.

5.3 IMPLICATIONS

This research provides several important implications for the implementation and promoting of effective electronic government services. E-government is the use of information technology particularly Web-based Internet applications to enable and enhance the access to and delivery of government information and service to citizens, employees, businesses and agencies. The Brown University Online Government Survey that is conducted annually ranked Malaysia as the thirty sixth (36th) in the availability of electronic government services in 2006. Malaysia's rank steadily improves as it was ranked at twenty fifth (25th) in 2007 and eleventh (11th) in 2008 (Mohd Zahri, 2009). This means that insights for electronic government implementation based on the findings of this research and

Malaysia's electronic initiative strategies 2005 might be helpful for other nations that have tried to build and promote effective electronic government services.

Among Malaysian government strategies toward effective electronic government are the establishment of e-government portal (www.malaysia.gov.my) that promotes *Integrated Administration* with interdepartmental and cross-agency online service capabilities as well as converged public or civil service to enhance transparency of government information. The government has also increased its administrative efficiency and public services by implementing EG*Net that provides secured Government connectivity for agencies throughout the country to access EG applications, a one-stop electronic service centre for job services (JobsMalaysia), online procurement (ePerolehan) and online land management and administration integrated system (e-Tanah).

Government departments and statutory boards themselves can take their own innovative actions to support the actions already taken by the federal government. The actions are:

- Provision of current and up up-to-date and useful government information, and enhancement of government transparency in their official websites and through their direct interaction with their "customers";
- Broadening of the electronic government services and contents, and promotion of the ease of use and convenience of these services;

- Promoting online technical support and setting up physical service counter at various premises (rural as well as urban) (Lai et al, 2004);
- Continuing to establish user-friendly web sites for IRB specifically and all government agencies generally;
- Formulation of information-related laws, that protect the privacy of citizens information and strengthening the security and trustworthiness of electronic government services as well as educating the public of the actions taken to protect them. Convenience should not be sacrifice in the process of enhancing information security and privacy; and
- Alleviating the digital divide resulting from family income, educational attainment, occupation, employment status, race, gender, age, and geography by providing the necessary technical supports in terms of hardware, technical supports and access to the Internet itself for every eligible citizen.

However, government agencies are currently facing the challenge of retaining and motivating citizens to continue using their e-government services as well attracting new adopters. This research indicates that the Malaysian government needs to also focus on some specific areas of ease of use of the system, gender and ethnicity of the targeted population. In order for smooth transition by the citizens towards higher acceptance of e-government initiatives, the federal government also must formulate a guideline for all related parties on the quality measures required in the development of all e-government systems.

This sample population was relatively young and well educated and they are highly likely to have lower inherent risk usage risk. These research findings also indicate that even though perceived risk did not deter taxpayers from adopting e-filing, the risk facets were deemed to be very important. These facts warrant the government to continue their efforts to control the risk as well as educate the populations on the security and privacy features available.

The promotion activities taken by the government should cater to the specific perceptions of risk by both gender and ethnic groups in Malaysia. Television or radio stations that are frequent by certain gender or ethnic should have different strategies to not only promote to new adopters but also retain current adopters. The advertisement that highlights the security features available as well as ease of use of the system is deemed to be more effective for Malaysians.

The comparisons between e-service offered by private service providers to e-government in terms of accountability, structure and access (Jorgensen & Cable, 2002) warrant the usage of these research findings in the improvement of government policies. E-government implementation is constrained by the requirement to services in the best interest of the citizens (accountability), subject to dispersion of authority (structure) and responsible in providing access to all citizens (access) (Carter and Belanger, 2006). These findings are salient to the

successful implementation of e-government in Malaysia as well as other developing countries.

The e-services offered in Malaysia's e-government portal can benefit from this research as the importance of users perception of system ease of use can propel the improvement in their computer interfaces and trial software.

Continuous e-filing education nationwide provided by IRB is seen as one of the reason that perceived risk played a minimal role in their adoption intention. Indicators of risk reducing actions (firewalls, digital signature, and personalized pin code) should be clearly communicated to the public. This information could be valuable for governments in designing and implementing their e-government services framework. The well catered framework can facilitate in improving the perception of Malaysian people towards the e-government services offered and increasing their adoption intentions.