

Tax E-filing Adoption in Malaysia: A Conceptual Model

Yusniza Kamarulzaman and Anna A. Che Azmi

University of Malaya, Kuala Lumpur, Malaysia

Abstract

Tax e-filing is one of the e-government services that is gaining importance for public to perform their responsibility to the country through tax payment. Despite the rapid adoption of e-filing in Malaysia, the e-filing system is still unreliable especially at peak period which lead to high level of risk perceived by taxpayers. This paper proposes a framework that incorporates the significant affect of performance risk, which is a significant perceived risk facet, on tax e-filing adoption in Malaysia. In this paper, the framework also posits the perceived risk and performance risk within the Technology Acceptance Model (TAM) within the e-filing context. This model will serve as a useful guideline not only for devising strategies to promote e-government services, particularly tax e-filing service but also to improve the performance of the e-filing system.

Keywords: E-government, E-filing, Perceived Risk, TAM

1. Introduction

The growing use of internet had made e-government possible for many countries, even for developing countries. Government around the world is investing in the development of e-government services. One of the e-government services that are gaining importance in Malaysia is the e-filing system. In 2009, 1.25 million taxpayers were reported to have filed their tax return through the e-filing (Bernama, 2009). The Inland Revenue Board in Malaysia (IRB) introduced this system to enable taxpayers to submit their tax return through the internet. To e-file (i.e. submit their tax returns electronically), taxpayers are initially required to obtain a digital certificate from the IRB. This digital certificate was introduced as one of the security features of e-filing. Only taxpayers with a valid digital certificate are able to access their tax return online. Once taxpayers gain access to their tax return, they could complete and submit their tax return online. During the keying-in process, taxpayers are given the flexibility to move back and forth between pages. Also, taxpayers are somewhat guided to ensure that errors when key-in the data are minimised. For example, the e-filing system calculates the tax payable of the taxpayer based on the information that was entered in the form and error messages will appear if any amount of

personal relief is entered in excess of the legal threshold. Once the form is completed, taxpayers are able to submit the form electronically at a click of a button.

The e-filing system was introduced 4 years ago in Malaysia and various problems were faced by the taxpayers when using the e-filing system. The grouses of these taxpayers regarding their experience when using the e-filing system could easily be read through their blogs and newspapers clippings. These grievances were with the performance of the e-filing system. An example of a current problem is the returns have to be completed online. Users could not complete a soft copy of their return offline and then upload or submit the completed tax return to the IRB. In other words, users have a restricted amount of time to fill the tax return online. Thus, for successful e-filing, taxpayers not only have to be familiar with the electronic version of the tax return but they also have to feel comfortable using the internet and computers.

2. Research Background

Researches such as Hoffman et al., (1995), Alba et al., (1997) and Peterson et al., (1997) have discussed several benefits that offered to the consumers with regards to most online activities. The Internet allows consumers to conduct transactions within a few mouse clicks. Tax e-

filing offers many benefits to both service provider (IRB) and stakeholders. To the IRB, e-filing minimizes the tax officers' workload and operational cost due to the submission of tax returns in a paperless environment. It is also reduces the costs of processing, storing and handling of tax returns. To the taxpayers, e-filing offers convenience, saves time from reduces any calculation error on the tax return and they are able to fill in their tax return at their convenience. Tax e-filing provides many aspects of convenience (i.e. time to file, place to conduct the filing, ease-of-use, information searching and online transactions) to a degree that is not quite available through traditional channels. These conveniences can serve as a key driver of e-filing adoption.

3. Research Problems

Despite the swift consumer acceptance on e-filing practices, IRB faces some major challenges towards the implementation of the e-filing system. Amongst the challenges is to ensure that the system runs smoothly and efficiently during the tax filing period each year. This is referring to the technical aspect of e-filing, i.e. computer and information systems utilized for the e-filing system need to be stable and reliable enough to handle large amount of information processing especially during the peak period of e-filing, especially when it is close to the deadline. The service provider, the IRB, has to ensure that the e-filing system could handle large processing of data during the month of tax submission without any glitches.

Another critical issue on e-filing is that the IRB has to ensure the confidentiality and privacy of the information submitted through the Internet is preserved. If the IRB are not able to provide an e-filing system that could overcome these challenges, taxpayers might be reluctant to adopt the e-filing system. The issue of information privacy, if it is not overcome and well strategized, could be translated into risk to current and potential adopters of the e-filing system. Thus, it is very important for the IRB to understand the risk perceived by the taxpayers and to ensure that the risk is minimized. To maximize the advantage of the electronic phenomenon, IRB needs to identify and understand how far perceived system risk may impact users' decisions to engage in tax e-filing facility.

4. Research Objectives

The main objective of this research is to understand the affect of perceived risk and performance risk in the context of e-filing adoption in Malaysia. The study also aims to assess how significant is the perceived risk to the perceived ease of use and perceived usefulness of the e-filing system. The research

adopts and extends the Theory of Acceptance Model (TAM) to include Performance risk as a facet of perceived risk; this is discussed further in the research framework section. Based on TAM, this study aims to investigate the effect of perceived risk on the behavioural intention of tax payers to use e-filing facility provided by the government. This paper is expected to provide theoretical explanation of perceived risk in influencing the acceptance of e-filing in Malaysia.

5. Research Significance

The importance of this research is described as follows. First, this research adds to the existing e-service and e-government literatures by focusing on the significance of the performance risk and perceived risk on the adoption of tax e-filing in Malaysia. Second, the research is useful to the IRB because it identifies the types of risk that the taxpayers perceive about the e-filing system. Finally, the research findings can be a useful guide to the service provider in their strategy development through highlighting the areas that the e-filing system could be further improved.

6. Literature Review

6.1 Adoption of E-Filing

E-tax filing is a new channel to pay taxes via electronic medium such as the Internet. Although it is convenient, easy, flexible and available 24/7, the innovation might cause some problems to consumers. At present, there is very limited literature that focused on the adoption of e-filing system, particularly in Malaysia context. Most of the literature related to tax e-filing adoption, applies and extends the well known Technology Acceptance Model (TAM) by Davis (1989) (Wang, 2002; Chang et al., 2005; Gallant et al., 2007), Theory of Planned Behavior (TPB) by Fishbein and Ajzen (1975), (Hsu and Chiu, 2004; Hung et al., 2006) and a unified model of both theories (Fu et al., 2006) to assess the adoption intention of the e-filing system. Other literature such as Carter et al., (2008) had used the Unified Theory of Acceptance and Use of Technology (UTAT), while Wang et al. (2007) had used the Innovation Diffusion Theory to observe the e-filing adoption among taxpayers.

Wang et al. (2007) had examined the effect of the computer self-efficacy variable on the antecedents of the Perceived Usefulness (PU) and Perceived Ease of Use (PEOU) while Fu et al., (2006) had observed the compatibility variable. In addition, Chang et al., (2005) have studied the effect of quality antecedents of PEOU and PU, which are information system quality, information quality and perceived credibility on adoption intention. Besides, a significant number of studies have found that perceived risk significantly affects the behavioural intention of current and potential users of the e-services, such as e-filing system

(see, Hsu and Chiu, 2004; Fu et al., 2006; Gallant et al, 2007; Carter et al, 2008). However, the perceived risk in these studies only measures the effect of overall risk on the behavioural intention.

6.2 Theory of Perceived Risk

The theory of perceived risk has been applied to explain consumer behavior in decision making since the 1960s (i.e. Bauer, 1967). The definition of perceived risk has changed since online transactions became popular. In the past, perceived risk was primarily regarded as fraud and product quality. Perceived risk refers to certain types of financial, product performance, social, psychological, physical, or time risks when consumers make transactions online (Forsythe and Shi, 2003). Perceived risk has been tested with TAM in numerous studies in understanding consumer behaviour towards adoption of online shopping (Bhatnagar et al., 2000; Gefen and Straub, 2003; Kamarulzaman, 2007). However there is very limited application found in e-government studies.

Consumers perceive risk in most non-store purchasing decisions (including services) seems to have a higher level of perceived risk associated with them (Dollin et al., 2005). Tax e-filing is considered similar to online shopping when comes to transaction setting as both are done via virtual media, the Internet. Tan (1999) found that information technology-related form of transaction activities is similarly perceived as higher risk or loss by consumers, and suggested that risk-averse consumers are less likely to do transaction on the Internet. Since Bauer, (1967) proposed the concept of perceived risk of consumers; many researchers have discussed the issue and have presented numerous extended definitions (i.e. Mitchell, 1999; Huang et al., 2004; and Pires et al., 2004).

With the growing penetration rate of Internet usage, consumers are concerned about the various types of risk presented when engaging in online transactions. When customers are uncertain about online services they may worry about an unjustifiable delay in product delivery, providing payment without receiving the product and other illegal activities and fraud (Ba and Pavlov, 2002). According to Pavlou (2002) cognitive and affective factors are important variables that prevent people from trusting online services. He defines this as the user's subjective expectation of suffering a loss in pursuit of a desired outcome. Other studies also indicated that perceived risk is an important determinant of consumers' attitude toward online transactions (Bhatnagar et al., 2000; Dollin et al., 2005; Kamarulzaman, 2007). Since intention to use an e-filing for tax transactions involves a certain degree of uncertainty,

perceived risk is incorporated as a direct antecedent of behavioral intention to use in this study

Several types of perceived risk have been widely used in previous research (Mitchell, 1999; Featherman and Pavlou, 2003; Rotchanakitumnuai, 2007). For instance, financial risk is the potential monetary loss that consumers may encounter after purchasing particular products or services. Performance risk is viewed as the likelihood that a product performs as expected. Physical risk is related to safe problems arising from using the product, especially those directly related to health and security. Psychological risk is the possibility that the selected product will be consistent with the consumer's self-image. Social risk is considered to be the perceptions of significant others towards the products or services. Convenience risk stands for the additive problematic inconveniences that the consumer will encounter when they purchase the products or services. A perceived risk variable decomposed into its sub-facets is possibly be a better measure because it gives insight as to which risk facets are important for potential users (Featherman and Pavlou, 2003). Rotchanakitumnuai (2007) investigated on the use of three risk facets, namely privacy risk, performance risk and the fair financial audit risk on the tax e-payment system in Thailand and found that only performance risk and the fair financial audit risk were significant variables to the adoption of the e-payment method in Thailand.

6.3 Research Framework

Tax e-filing brings vast opportunities for both users and the government but the adoption is still at infant stage in Malaysia. Lack of trust is one of the most frequently cited reasons for consumers not purchasing from Internet (Lee and Turban, 2002). Thus, this paper's main focus is to investigate the relationships between perceived risk and tax e-filing usage intention, and the differences of their relationships. The TAM, originated from the Theory of Reasonable Action (TRA) represents an important theoretical contribution toward understanding online usage and its acceptance behavior to measure the intention of tax e-filing adoption mediated by perceived usefulness (PU) and perceived ease of use (PEOU) which two intervening variables of the prediction.

There is theoretical an empirical support for integrating perceived risk with TAM variables. Previous research integrates perceived risk with the model, arguing that perceived risk relates to PU and PEOU. Gefen and Straub (2002) also assimilate perceived risk, PU and PEOU in the context of e-services. Pavlou (2002) also includes perceived risk in the TAM model constructs.

Perceived risk in e-filing increases behavioral uncertainty and affect the intention to adopt the e-filing applications. However, users are likely to adopt e-filing facility if their risk perceptions and environmental uncertainties are alleviated. Building from the TAM and perceived risk literature, the following hypothesis are developed.

- H1: PEOU of tax e-filing adoption significantly affects perceived risk.
- H2: Perceived risk of tax e-filing adoption significantly affects PU of e-filing usage.
- H3: Perceived risk significantly affects the intention to adopt tax e-filing.
- H4: PU of tax e-filing significantly affects the intention to adopt tax e-filing.
- H5: PEOU of tax e-filing significantly affects the intention to adopt tax e-filing

Cunningham (1967) suggested that performance risk influence all risk facets such as privacy risk, time risk, financial risk, psychological risk and overall risk. Featherman and Pavlou (2003) further support this proposition. In their study on online purchasing system, seven different facets of risk were identified which were performance risk, financial risk, time risk, psychological risk, social risk and overall risk. They found that all these risks significantly are influenced by performance risk while performance risk is found as an antecedent of PEOU. Hence, the performance risk associated with the adoption of e-filing has been incorporated in the model. Thus, the following hypotheses are established:

- H6: Performance risk of tax e-filing adoption significantly affects perceived risk.
- H7: PEOU of tax e-filing adoption significantly affects performance risk.

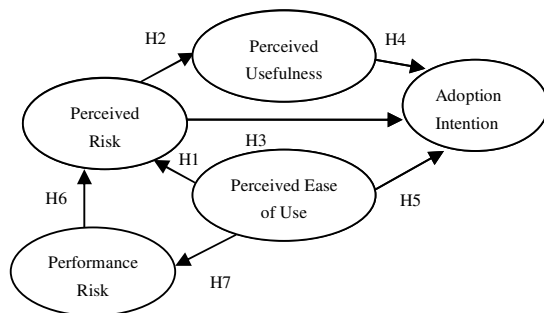


Figure 1. Research Framework

7. Discussions and Conclusion

Previous researchers have highlighted the importance of perceived risk to the adoption of

e-filing. This research attempts to provide insights into performance risk, thus, providing useful input on the adoption and evaluation of the e-filing system by users. It is predicted that both perceived and performance risks will be significant. There are potential benefits of this research. First, risk-reducing strategies could be formulated to encourage e-filing adoption such as improved security features for the user interface. Second, this research could identify the demographic characteristics of those with higher or lower inherent e-filing usage risk.

This research could also be expanded to include different types of respondents such as paid tax preparers and different types of taxpayers. Paid tax preparers are given the rights by their clients to prepare their tax matters. They use the e-filing system for different types of clients and are more frequent users of the e-filing system than taxpayers who file for themselves. It would be interesting to understand which facets of risk are more significant to them. Different types of taxpayers such as companies may deal with more complex transactions than individual taxpayers, thus, they may emphasis on different risk facets when filing in the tax return form electronically.

Perceived ease of use influences the performance risk of the e-filing system. Having an e-filing system that is not too complicated will also minimize the performance risk. Performance risk will be lowered only when taxpayers feel that the system is easy to use. This will also lower the perceived risk that taxpayers feel towards the system. The IRB Malaysia should be aware of the significant role of performance risk. This means that any system malfunction or glitches should be minimised. In addition, IRB should communicate to the taxpayers regarding the improvements that have been made to the e-filing system, so that the public are assured that their past grievances will no resurface.

A successful adoption of the e-filing system means that the system is adopted by a large number of taxpayers. Ensuring that the existing adopters of e-filing had a good experience using the system will increase the likelihood of future adopters. Taxpayers will voluntarily convey their experience to their friends and family, this is a form of free advertising for the e-filing system. Advertising campaign should also stress on the benefits of e-filing over manual filing. The security features of the e-filing system, which ensures privacy of information and transaction, should also be included in the advertising slogan.

8. References

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