

**DETERMINANTS OF USER SATISFACTION AND
USAGE INTENTION OF E-FILING SYSTEM IN
MALAYSIA**

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**FACULTY OF BUSINESS AND ACCOUNTANCY
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KUALA LUMPUR**

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**DETERMINANTS OF USER SATISFACTION AND USAGE
INTENTION OF E-FILING SYSTEM IN MALAYSIA**

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**DISSERTATION SUBMITTED IN PARTIAL FULFILMENT OF THE
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Abstract

Purpose – The purpose of this paper is to investigate on the factors that affect the user to filing corporate tax returns using the e-filing system in Malaysia.

Design/methodology/approach – The study uses quantitative research approach where questionnaires with close-ended questions were used. In total, 200 questionnaires were distributed and 187 were found usable for data analysis. Analysis of data was done through two types of statistical analysis software which are SPSS and Smart PLS. Structural equation modelling is used to analyse the hypotheses. 11 hypotheses were formulated and tested.

Findings – The results shows that service quality and user satisfaction have significant impact on usage intention while trust in technology significantly influenced perceived risk among users. Meanwhile, information quality and trust in government significantly influenced user satisfaction. Based on the three dimensions of IS success model, service quality and information quality were found to have the most consistent-and significant influence over user satisfaction and usage intention in adopting the system. The implications are further discussed.

Originality/value – This study proposes a framework which constitutes the combination of Information System Success Model (ISSM) theory and Trust theory. This framework is useful since it is able to identify-factors that affect users' adoption of e-filing system.

Keywords: E-filing system, Adoption of electronic tax system, Corporate taxpayers, User satisfaction, ISSM

Abstrak

Tujuan- Tujuan disertasi ini adalah untuk mengkaji faktor yang mempengaruhi pengguna untuk memfailkan penyerahan cukai korporat menggunakan sistem e-filing di Malaysia.

Reka bentuk/Metodologi/Pendekatan- Kajian ini menggunakan pendekatan kuantitatif di mana soal selidik berpandukan soalan tertutup digunakan. Keseluruhannya, 200 soal selidik telah diedarkan dan 187 telah dikenalpasti sebagai berguna untuk analisis data. Analisis data ini dilakukan melalui dua jenis perisian analisis statistik iaitu SPSS dan Smart PLS. Model persamaan struktur digunakan untuk penganalisan hipotesis. 11 hipotesis dirumuskan dan diuji.

Hasil kajian – Keputusan kajian menunjukkan bahawa kualiti servis dan kepuasan pengguna memberikan impak yang signifikan terhadap niat kepenggunaan manakala kepercayaan terhadap teknologi mempengaruhi tanggapan risiko dalam kalangan pengguna pada tahap ketara. Di samping itu, kualiti informasi dan kepercayaan terhadap kerajaan juga mempengaruhi kepuasan pengguna. Berdasarkan tiga dimensi Modal Kejayaan Sistem Informasi, didapati bahawa kualiti servis dan kualiti informasi mempunyai pengaruh yang konsisten serta ketara terhadap kepuasan pengguna dan niat kepenggunaan dalam menerapkan sistem tersebut. Implikasi seterusnya dibincangkan dengan lebih lanjut.

Keaslian / Nilai – Kajian ini menggunakan kerangka yang merangkumi gabungan teori Modal Kejayaan Sistem Informasi (ISSM) dan teori kepercayaan. Kerangka ini berguna kerana berupaya mengenalpasti faktor yang mempengaruhi penerapan pengguna terhadap system e-filing.

Kata kunci: Sistem E-Filing, Penerapan sistem cukai elektronik, Pembayar cukai korporat, Kepuasan pengguna, ISSM

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LIST OF SYMBOLS AND ABBREVIATIONS

E-filing	Electronic filing
IRB	Inland Revenue Board
ISSM	Information System Success Model
SmartPLS	Smart Partial Least Square
SPSS	Statistical Package for the Social Sciences
SQ	Service Quality
SYQ	System Quality
IQ	Information Quality
TIG	Trust in Government
TIT	Trust in Technology
PR	Perceived Risk
US	User Satisfaction
UI	Usage Intention
CR	Composite Reliability
HTMT	Heterotrait – Monotrait Ratio
AVE	Average Variance Extracted

CHAPTER 1: OVERVIEW OF RESEARCH

1.0 INTRODUCTION

The first chapter begins with a general background on e-filing system and usage of the system. This is followed by Section 1.2 which is problem statement outlining the issues on adoption of e-filing system. Then, research objectives and questions are discussed in Section 1.3 and Section 1.4, followed by research gap and justification in Section 1.5, research process in Section 1.6 and Section 1.7 discuss on organisation of study. Finally, in Section 1.8, a summary on overview of research is discussed.

1.1 BACKGROUND

In year 2004, the Inland Revenue Board (IRB) has introduced an electronic tax filing system which is known as e-filing system (*The Malaysian Reserve, 2018*). E-filing is a service which allows individuals or corporate taxpayers to submit income tax return forms electronically. It is one of the government initiatives to develop a better taxation system in Malaysia. This system has been introduced in order to replace the previous tax system known as Self-Assessment System (SAS).

According to IRB, they will strive to improve the system. *“We will never be satisfied and will always strive to improve the system depending on current needs. “This includes the accuracy of the information provided by the taxpayers in the Income Tax Return Form (ITRF) and also the submission through online does not trigger further scrutiny by audit and investigation (The Star online, 2019).* IRB introduced e-filing system for corporate taxpayers in 2004 and for individual taxpayers in 2005. However, at that time taxpayers were still obtaining forms from

IRB website for manual submission. With effect from year 2014, it became a mandatory requirement for companies to file their taxes via e-filing system.

One of the main sources of income for the country is through collection of direct taxes. Inland Revenue Board (IRB) acts as agent to collect tax from tax payers on behalf of the government (*The Star online, 2017*). This is to ensure the taxes are collected efficiently and to avoid risk of corruption or tax evasion. Moreover, users should not handle or received money directly from taxpayers. Taxpayers has two option either to choose online tax submission (e-filing system) or manual tax submission (self-assessment system) beginning the year 2004.

The manual tax submission method requires taxpayers to fill up handwritten forms and to calculate-their tax computation manually. This method would not be free form errors. Once the form is filled up, it needs to be returned via post service or through the Inland Revenue Board (IRB) counter itself. Once the IRB officer received the tax return form, they need to update them in their data entry. Therefore, this method requires more time to verify the tax payers income declaration. The manual method also incurs cost for printing tax forms issued to the tax payers (*The Star online, 2019*).

Inland Revenue Board is an agency set up by the Ministry of Finance. Meanwhile, a tax officer act as agent to provide services like administering, collecting and assessing on tax issues (Manaf et al., 2013). Since tax officers are service provider, they should provide quality service in order to fulfil the needs of the users adopting e-filing system. Thus, the tax officers have to be equipped with necessary knowledge in order to assist the users. Tax officers also need to be aware of any new updates and amendments made in tax provisions.

According to Sulaiman et al. (2005), before the e-filing system was officially introduced, companies at that time were able to download Form C from the IRB webpage and then fill up the form electronically and submit them manually either by postage or hand to tax officers. Through this e-filing system, IRB expected that they are able to identify the number of tax returns that has been filed by taxpayers and update their database accordingly. Moreover, this system can avoid loss of data when submitting through online. E-filing system has been improved to enable companies to submit Form C directly to IRB via electronically. This process is more effective in terms of cost, time saving and also it is more secured. IRB does not only introduce the system, but also integrated Public Key Infrastructure (PKI) together with the system. IRB uses Public Key Infrastructure (PKI) in order to secure-transactions made through internet (*The Star online, 2018*). Therefore, it allows the users to file tax return of their clients. Hence, before submitting Form C, the system requires the client's company director to provide signature as an authorization and consent for the user to submit the Form C electronically.

Besides that, the tax administrators, society and policy makers are always concerned with the tax compliance (Isa, 2014). This is due to the fact that tax compliance impacts revenue collection and therefore the ability of the government to achieve targeted goals. In order to increase tax compliance, the government has taken initiatives by providing excellent taxpayer services to achieve a higher tax collection and reduction in tax gap. Introduction of e-filing system in Malaysia by the government is one of the measures taken to achieve higher voluntary on tax compliance. Nevertheless, this effort ensures taxpayers to declare their income, filing tax returns and paying tax due in timely manner.

The real achievement of an e-government system is the enforcement of system that are utilized and fulfill user's need (Schaupp et al., 2010). In the United States, e-filing system is one of the electronic government services that is facing high attention and is fully practicable through online. The e-filing system has been developed into a congressional initiative as the adoption of this system is yet to be fully achieved. E-filing system has the ability to upgrade the whole process of tax filing for the corporate and individual taxpayers and also minimises costs to the users. The United States is recognised as one of the country that has successfully implemented and adopted e-government system.

Singapore is known as the first country that accepts electronic system in public administration. The first step that was taken by the Singaporean government is transferring from a physical filing system to paperless state (Bank, 2013). Adopting electronic system in their administrative process became more efficient by relieving the user from dealing with stacks of papers. These changes enabled tax officers to focus more on auditing and inspecting. The electronic system is less depending on the expertise of tax authority due to the automated standard taxation procedures and indirectly able to reduce the potential of corruption.

The first public agency in the country to adopt online technology was Chile's Internal Revenue Service (Bank, 2013). This online technology was introduced to improve tax compliance and reduce direct communication with taxpayers. Chile successfully became one of the few countries that managed to adopt almost 100% use of online system. Chile faced few obstacles in achieving this. Obstacles such as taxpayers faces internet connection problems, little groups of taxpayers refused to adopt the online technology at the initial stage and system malfunction during the peak time before submission. Chile had overcome this issue by continuously

upgrading the electronic system and offered prefilled electronic forms to facilitate the process for taxpayers. Apart from that, Chile also created a public-private network and provided more connection points to handle the internet disruption problem. For a wider access to internet, Chile government has instructed the internet cafes to provide free internet for the taxpayers as well as providing training to the operators.

According to Veeramootoo et al. (2018) study, even though there are various online services that were implemented by the government, e-filing is one of the most technology advanced and commonly used e-government platforms among the users. This system generally improves the tax filing process and at the same time leads to cost saving measures for the government and taxpayers as well. Eventually, some users are still expressing their concern on this system and are not fully utilising it despite the known benefits in using e-filing system. The benefits of e-filing system cannot be fully accomplished if the users are not using it continuously. As there is rising number of users using e-filing system, tax officers need to take imitative steps in order to sustain continuous usage of the system.

In the study by Santhanamery & Ramayah, (2018), e-filing has given a new point of view to Malaysian tax administrators to integrate and develop the system. A good understanding in e-filing system by the tax administrator will indirectly improve the level of service provided and motivate the users to continue using the system widely and it will directly lead to the increase in revenue collection for the country. The main advantage of this system is its ability to integrate tax filing, tax preparation and tax payment as a whole compared to the traditional manual method. Even this system has been introduced in 2006, tax authorities are still making progress each year in order to deliver better service to users. This tax system gives a successful

impact to the economy by improving the level of income generation and tax compliance by the taxpayers. This is due to the benefits that were gained through the system such as cost effectiveness, convenience, and time saving for both taxpayers and tax authorities.

According to Chaouali et al. (2016) study in Tunisia, there were other e-government service which has been proposed to users before e-filing system was implemented. The e-government services have grown rapidly in the past few years since development in the internet usage over the world thus, the government initiates to invest in this new system as an added value service for the country. Meanwhile, policy makers and researchers are trying to find potential ways in order to grow and improve the quality and accessibility of this public service system, so that it leads to an increase in public resources management efficiency and improves-transparency of information. In addition to it, citizen perspective towards the system is that it saves time and effort as the system allows accessibility 24 hours a day and 7 days a week. This system also strengthens the relationship between users and government which indirectly increases the involvement of the users. Despite all the benefits that the e-government service has to offer, there are a bunch of users still reluctance to adopt it. They prefer to continue using manual ways such as visiting tax administrator's office or through queries over the telephone.

The usage of e-filing system by the users benefits the taxpayers as such it allows them to claim their tax return in a short time period if they paid taxes in excess (*The Star online, 2015*). E-filing system is able to save users time as tax returns are submitted electronically instead of queueing at the IRB office which is especially inconvenient during the peak hour season whereby the tax officers has many taxpayers to be entertained either for corporate or individual taxes. Apart from that, this system also reduces human errors in computing taxes, reducing

postage expenses and papers (*New Straits Times*, 2019). Thus, the users do not require much space to store taxpayer's files and time to update their database.

With the source of internet, it is made possible for most of the developed and even developing countries to adopt this e-filing system. Hence, governments around the world had invested in this e-government service system in order to be used widely by the users. Furthermore, e-filing system were able to minimise workload of tax officers and reduce additional costs in printing tax return submission forms. Moreover, calculation error is reduced while computing tax return thus saving e-filing users time. This system is also able to simplify the process of submission and storing of taxpayer data. In short, e-filing is more convenient to use compared to manual submission method and therefore serves as the key successful factors for adoption.

1.2 PROBLEM STATEMENT

E-filing, an online electronic system that is designed for more convenient way to submit income tax return by the individual or corporate taxpayers. The idea of implementing this system is to avoid hassle and saves time in submitting tax returns. Even though the e-filing system had been implemented long ago, there were still some issues with this electronic system and loop holes particularly in the area of corporate tax filing. However, IRB faces many challenges during implementation of this new system for corporate tax filing in Malaysia. Therefore, there were still dissatisfaction feedback from users of the system.

Users of the e-filing system have different perceptions towards the system due to the different problems that each party faced (Kakouris & Meliou, 2011). Therefore, certain problems which have been pointed out by the users is deemed otherwise by the other party. This is mainly due

to both party did not interact with each other regarding on the usage of the system. Besides that, users presume themselves to have greater knowledge in terms of high ethics, have more favourable attitudes and tax mentality than the other party (Kirchler et al., 2006). The direct relationship between both parties are important in a taxation system.

Besides that, the user who uses the system are not satisfied with certain service provided (Manaf et al., 2013). This is due to the inconsistent handling in certain tax cases and handing over cases to a different IRB branch. In additional, the users are the group who uses the e-filing system more aggressively. Therefore, the IRB need to provide better service by being helpful when dealing with issues like tax appeal process. The IRB are actually holding bigger responsibility to ensure all users are working in align with the government requirements.

Another major issue on e-filing system that the users faced is network connection problem especially during peak hours (Kamarulzaman, & Azmi, 2010). Since there will be many people using the website, it is ought to crash. Thus, the system needs to run smoothly especially when it is close to tax submission deadline. The IRB has to ensure that the system is stable to handle large amount of data during the tax submission period without crash or heavy traffic occurrence. Basically, IRB have access to the system, therefore they are able to make improvements and simplification on the system in order to handle problems faced by the user.

Nevertheless, there is an issue on system flexibility whereby the user requires multiple language options especially English version. Unfortunately, language options is not available in the e-filing system for the user to choose. Users of the system especially foreign expatriates would face difficulties in understanding certain terms. Currently, the system is only available

in Bahasa Melayu version. The latest version of e-filing system year 2019 requires more precise details from users when filing in information. Thus, there is a high tendency among users to provide incorrect details due to not understanding certain terms of the system.

Another problem is the information or figures that are provided in e-filing system should be correct and accurate (Veeramootoo et al., 2017). Therefore, the user has an important role to disclose all information in the system accurately. The reason behind is because if the accounts shows an amount due to directors during the year as such the director is required to pay tax for this income receivable, thus the IRB will ensure that the director is paying the tax liability accordingly. There are cases where the tax payers will try to manipulate the accounts by turning director's personal expenses as company expenses. Thus, the information provided is inaccurate, which creates additional problems to the users due to the amount of time spent to verify that information.

Furthermore, record keeping is another issue that has been raised against this e-filing system. This due to when corporate tax payer has responsibility to keep proper records and documentation of their accounts which has been submitted to Inland Revenue Board (IRB) (Isa, 2014). Even though all of this document is not required during submission of the Form C (e-filing), yet the tax payer is required to maintain proper documentations for 7 years. It will be useful in case the IRB finds any suspicious information in their accounts, the tax payer will be called for tax audit. Tax audit is to ensure and verify the information provided in the system are accurate and valid. As an example of record keeping, if the company contributes certain amount of fund as a donation for charity purposes, the taxpayer should enclose an official

receipt as supporting document. In short, it is necessary to maintain the accounting records to safeguard tax payer interest in the future.

One of major advantages in this e-filing system is the availability of platform for online payment (Sulaiman et al., 2005). IRB has included this feature into e-filing system which known as “e-payment”. This e-payment allows taxpayers to pay their tax using internet banking under their own account holder name. Even with this current advancement of technology, nevertheless some of the taxpayers do not have the trust to make online payment due to perception of risk. They’d rather prefer manual payment either by making payment at the IRB counter or by cheque. Moreover, some taxpayer is insecure to reveal all their personal information due to concern of information being stolen by hackers. This is also one factor that would prevent taxpayers from adopting the e-filing system and is another problem faced by the users.

In another instance, by using e-filing system an issue that arises is on the confidentiality and privacy of the information submitted through the internet (Kamarulzaman, & Azmi, 2010). Taxpayers might not adopt or reluctant to use this system if the IRB are not able to meet the user’s expectation. Issues pertaining information privacy has to be rectified and overcome quickly else it could impact future adopters of the e-filing system. Therefore, it is important for IRB to realise and understand the importance-of risk perceived by the taxpayers and to ensure that this risk is minimized. In order to maximize the benefits of the electronic system, the IRB is required to understand and identify the extent of this perceived risk in impacting user’s decision on the adoption of e-filing platform.

Filing of tax computation in the e-filing system should be done before the deadline (Isa, 2014). IRB are expecting the users to submit tax return through online rather than manual submission. It is difficult to prepare tax computation since there are various nature of business. For example, investment holding companies are able to claim for permitted expenses which other businesses does not allow for. In order to prepare this tax computation, the user should have a good understanding on the tax rules such as the types of expenses that are tax claimable. Once this tax computation is prepared, the user will then submit them in the system. Thus, the system are able to auto calculate the balance of tax payable or tax refundable which can be seen in Form C submission acknowledgment slip. Furthermore, when using this e-filing system, the user has to always be alert of the deadline. Not all of the taxpayers are efficient at meeting deadlines in submitting their accounts for audit purposes. Usually once the user prepares draft Form C (e-filing), they will give them to corporate taxpayer in order to get approval and signature from the director before submitting online. However, in many cases, the taxpayers will delay this process of returning the form to users and this will lead to late submission. Therefore, the IRB will charge a penalty for the late submissions.

Besides this, there are technical issues involved in e-filing when it comes to estimating business tax estimate for the following year (The Malaysian Reserve, 2017). All businesses in operation for three months should be able to estimate their revenue. Therefore, the user will prepare a tax estimate form (CP204) for corporate taxpayers to fill in their estimated tax amount. In reality, most of the taxpayers would leave the forms blank expecting suggestions from the users with regards to their estimated tax. In some cases, the tax payer will under estimate or overestimate their tax. The current tax estimate should not be less than 85% from previous tax payable. If the tax is under estimated, taxpayers should adjust the estimated amount via the CP204A (tax revision) form. Usually, companies are given the opportunity to do tax revision twice either on

the sixth or ninth month of the financial year. If the company still fails to do so, then the IRB will impose a penalty for under estimating their tax payable. For those companies that overestimated their taxes, they are able to get tax refund after submission of financial year end accounts therefore companies need not concern about overestimating when the users finally submit their tax estimates in the e-filing system.

Apart from this, there are also other technical issues in using e-filing system. E-filing system allows the users to submit tax return on time even on the last day of submission. Certain times, the user faced difficulties in accessing the e-filing webpage due to server down or overload version. Due to the technical issues, the user were not able to confirm whether their submission was successfully received by the system. Therefore, there are cases where the user has to pay penalty for not submitting their taxes even though they have filed their submission on time via e-filing system. This is due to errors occurred while submitting tax which is beyond the user control. Furthermore, e-filing system has set up automatic time limit for system logout that is insufficient for the user to complete tasks whereby the system will be at an inactive stage after certain time of usage. Therefore, once the webpage is logged out, all previous information input will not be auto saved and the e-filing system user is compelled to re-enter the information on the previous sections. This is burdensome to the users since it is time consuming. On the other hand, according to tax officers, it is not a problem for them since the data could still be updated again.

In order to address these problems, this study investigates the contributing factors towards adoption of e-filing system by using combination of IS success model theory and trust theory. This study also extends the research by investigating whether these contributing factors are

similarly influencing the user satisfaction and intention to use the system. Therefore, at the end of this study it able to make theoretical contribution to the body of knowledge on corporate tax filing using the e-filing system.

Generally, the purpose of this research is to facilitate with tax compliance and to provide quality service to the users. Worth to mention, the significance of e-filing system implementation is to create good relationship between taxpayer and tax officers through this platform. This study also highlights some of the main issues facing users that would encourage the IRB to undertake further necessary action in order to rectify them.

1.3 RESEARCH OBJECTIVES

To address the problems on corporate tax filing by using the e-filing system thus, this study delve into the factors that contributes towards adoption in using e-filing system by using IS success model and trust theory. Therefore, the research objectives are:-

1. to evaluate the impact of information quality, service quality, and system quality on user satisfaction and intention to use e-filing system.
2. to evaluate the impact of perceived risk on intention to use the e-filing system.
3. to evaluate the impact of trust on user satisfaction of the e-filing system.
4. to evaluate the impact of trust on perceived risk of the e-filing system.
5. to evaluate the relationship between user satisfaction and intention to use the e-filing system.

1.4 RESEARCH QUESTIONS

The research objectives leads to the following research questions: -

1. What is the impact of information quality, service quality, and system quality on user satisfaction and intention to use e-filing system?
2. What is the impact of perceived risk on intention to use the e-filing system?
3. What is the impact of trust on user satisfaction of the e-filing system?
4. What is the impact of trust on perceived risk of the e-filing system?
5. What is the relationship between user satisfaction and intention to use the e-filing system?

1.5 RESEARCH GAP & RESEARCH JUSTIFICATION

Based on research objectives 1 to 5, the first contribution of this study is using Chen et al (2015) research framework but this study is looking specifically into the corporate tax filing. In Chen et al (2015) framework, the researcher uses the IS success model with dimensions of service quality, system quality, and information quality against user satisfaction. Besides that, in Chen et al (2015) model, the researcher uses perceived net benefit as the dependent variable while in the current research, the researcher uses usage intention as dependent variable. This usage intention variable has been used in several studies such as (Veeramootoo et al., 2018, Hussein et al., 2011, & Schaupp et al., 2010). This is because most of the studies on e-filing uses usage intention as the dependent variable.

The second contribution is also based from (Chen et al., 2015). In this research framework, perceived risk was not included as an independent variable. Even though this variable is not included in IS success model, it has an influence over the usage intention in adopting e-filing

system. Perceived risk is one of the variables which holds a prominent role in e-filing research (Veeramootoo et al., 2018). Perceived risk is defined as the risk that might cause exposure and loss of personal information when using online transactions. Meanwhile, in the context of e-filing system, perceived risk is the amount of unpredictability or anxiety that a user experiences when using the system. Thus, for current research this factor will be included in the current framework in order to identify the relationship between the dimensions of trust and perceived risk on influencing the user intention in adopting e-filing system. Therefore, the researcher is able to add contribution in the literature review which was not included in prior study by (Chen et al., 2015).

1.6 RESEARCH PROCESS

The outcome of this study is based on a well-designed research process that started by identifying the issues that arises in e-filing system. Then, proper research started with the literature review process to indicate further understanding on this topic. The literature review process is a constant process that occurs throughout the study at the earlier stage. The next step is developing research design that outline on the methodology and research framework for this study. Once this study has been approved during the proposal defence session, the study has been developed further to the next stage. Amendment was done based on the comments received during the proposal defence and then data collection was done. 200 questionnaires were distributed to complete this data collection process. The data collected was analysed using SPSS and Smart PLS 3.0 software. Upon completion of data analysis, the preliminary results were presented in candidature defence. Once this study passed again in the candidature defence, amendments were made accordingly to finalist the study. Then the study has been expanded further on the finding and conclude this paper in details.

1.7 ORGANISATION OF STUDY

This research is organised into five chapters. The first chapter provides an introduction on the e-filing system and further discuss on the adoption of e-filing system in Malaysia and in other countries as well. Chapter 1 also provides further breakdown on problem statements, research objectives, and research gap in order to guide the direction of this study. Chapter 2 reviews related literatures from previous researchers and discuss further on the IS success model theory and trust theory. In the third chapter, discussion continues on development of theoretical framework, development of hypotheses and also on the research methodology that were used in this research. Subsequently in Chapter 4, results of the statistical analysis and research findings is presented. Chapter 5 includes final discussions of the study and overall conclusion based on the findings from this research study.

1.8 SUMMARY

In this chapter, it provides an overview of this research study, and then discuss further on the problem statements. In order to address the problems on corporate tax filing by using the e-filing system, research objectives and research questions are developed in order to guide the direction of this study. Finally, research gap is discussed in order to provide contribution to body of knowledge.

CHAPTER 2: A REVIEW OF LITERATURE

2.0 INTRODUCTION

This chapter aims to review literatures related to this research. First in Section 2.1, an overview of e-filing system will be explained further. This section is expanded based in overview of researchers from prior studies. Next, Section 2.2 are discussed about the challenges faced by tax authority when implementing the system. Then, in Section 2.3, the factors that contribute to adoption of e-filing system are discussed. Meanwhile, in Section 2.4 continues with a review on theoretical foundation that has been used to explain further on information system success model and trust theories. The expansion of those two theories is used in current theoretical framework. Finally, Section 2.5, a summary of the overall review concludes the literature review chapter.

2.1 OVERVIEW OF E-FILING SYSTEM

Based on Sulaiman et al. (2005) study, e-filing was first implemented for individual taxpayers in the United State of America in 1985. E-filing is defined as the process of submitting tax return forms through the internet by using a tax preparation software. It also comprises of data transmitted by the tax authority. The system contains same information as in the manual submission way. While transmitting the tax return online, an acknowledgement slip will be provided to indicate that the transmitter has received the submission. The booming of this system has provided the option for accounting firms to prepare tax return and submit it via online to tax authority. The benefit of hiring tax authority is that they are more knowledgeable about tax deduction, tax law and they are able to keep track of records for the next taxation periods. If tax authority is not willing to participate in the government effort of introducing the

e-filing system, IRB would not be able to succeed in their goals. Thus, participation of tax authority is a contributing reason to the key success of this e-filing system.

In 2004, Malaysia taxpayers have been given the option either to choose manual or online based tax return filing method. With this manual submission, it incurs more time for tax officers order to check each individual taxpayers' submission. On the other hand, the online submission allows the user to return tax form via e-filing application whereby it is protected by Public Key Infrastructure (PKI) which is able to protect the data from being cracked or hacked. Besides that, this system also helps the user to auto calculate tax and submit forms accurately, securely, and also able to process tax refund quickly. Therefore, this e-filing system actually provides a tailored service that leads to user satisfaction. Prior studies by Rahman et al. (2018), discusses about achieving user satisfaction when a system provider provides good quality of service. Thus, service quality is a key to measure user satisfaction. In order to maintain usage of the system, a higher priority should be given to service quality. Service quality is able to satisfy users and fulfil their expectation so that they will continue adopting this system.

E-filing system is an essential online platform which allows user to file their income tax return at their convenience and with an efficient manner (Veeramootoo et al., 2018). E-filing system is developed under a single platform that performs a combination of tax preparation, online tax payment facilities, and online tax return submissions. The government agency is benefiting through this system since it helps in collecting the country revenue efficiently and effectively by examining each taxpayer's income return. It also important to identify user's perception on the adoption of e-filing service. Thus, the researcher of this study suggests various theories such as the technology acceptance model (TAM), theory of reasoned action (TRA), IS success

model (ISSM) and the diffusion of innovation (DOI). These theories have been used separately or some researcher even combine theories in order to expand their research in the study of e-filing usage behaviour. Meanwhile, in this study Veeramootoo et al. (2018) used expectation confirmation theory (ECT) and IS success model to investigate further on e-filing usage intention.

This e-filing system is a new platform for taxpayers to pay tax via electronically. According to Kamarulzaman & Azmi, (2010), although this system is convenient, easy to use, available at all times and flexible, nevertheless this system still causes certain problems to user. According to the researcher, there is limited literature that discuss on the adoption of e-filing system especially in context of Malaysia. Most of the literature that discusses on e-filing adoption were from other countries. In addition, most of the research extend the framework by using well known theories such as technology acceptance model (TAM), theory of planned behaviour (TPB), innovation diffusion theory and unified theory of acceptance and use of technology (UTAT). These theories are being used to observe the adoption of e-filing system among users.

In some other research has discussed on the determinants of e-filing system user satisfaction in order to measure user's perceived net benefit. This is able to indicate areas in which the IRB needed to focus in making improvements to increase user satisfaction level. In conjunction with that, the theoretical framework for this study has been developed based on updated IS success model. IS success model is able to measure three major dimensions namely information quality, service quality, and system quality. An important key to identify end user satisfaction is based on these three dimensions. System quality is measured by using the availability, adaptability, usability, and time response of the electronic system. Meanwhile, service quality

is a measure based on dimensions of assurance, empathy, and responsiveness quality that provides support to the users of the electronic system. Information quality is used to measure the content issues of the electronic system by indicators such as ease of understanding, security quality, completeness, relevance and personalisation. The researcher adapted this theoretical model in order to identify the major factors which contribute to user satisfaction. Besides that, by using this model researcher could study on usage intention, perceptions, and tax compliance in Malaysia. This model is also able to further understand on how perceived ease of use among users affects their intention and adoption of e-filing system. E-filing system has successfully attracted many users to date.

According to previous study by Isa, (2014), when a taxpayer experiences difficulty in complying with the tax submission process, this will create complexity. The feeling of uncertainty in tax law and tax returns are the reason for user reluctant in adopting the e-filing system. Based on this study, simple taxation system is defined as clear communication, predictability, and consistent rules which could be integrated with all other tax rules leading to increase in compliance. In conjunction with the findings of this study, tax complexity issues were highlighted to facilitate tax authority in order to create a system which consists of fairness, simplicity, equity, and efficiency. Tax authority should address those complexity issues that are faced by taxpayers so that they are able to avoid a tax burden. Thus, this study aims to provide guideline to tax authorities in order to simplify the tax system so that the user will continue to adopt it.

The success of e-government fully depends on the large number of users adopting the e-filing system. Moreover, the acceptance of user towards e-government service is considered as one

of the key success criteria for the government system (Kurfalı et al., 2017). Therefore, the researcher has proposed a model in order to analyse the trust value among users in adoption of the e-government system. The researcher also discussed on the perceived risk, perceived usefulness, perceived behavioural control and perceived ease of use by using the same proposed model in this research. By regulating a study on online tax system, the researcher concluded that trust is the most important factor which leads to the adoption of e-government service as compared to other variables. Other than that, the researcher proposed other model which is able to measure the “willingness to use” as the dependent variable of e-government adoption. In this proposed model, the willingness to use is measured based on the perceived barriers and perceived relative benefits variables. The perceived barriers variable is measured based on ease of use, reliability, confidentiality, enjoyment, visual appeal and safety. Meanwhile, perceived relative benefit is measured based on the control, cost, avoidance of personal interaction, convenience time and personalisation. Both of these variables were able to indicate the willingness to use the system. The researcher also suggested a model to analyse the user intention on the adoption of e-filing but it was not successful due to lack of coverage on the aspects of adoption. According to the researcher, “frequent usage of government services” is an important factor that lead to success of e-government adoption. The success of the adoption could not be measured if user used the system only once. Thus, to measure e-government adoption properly, the researcher added another dimension which is satisfaction in order to identify the frequency of the system being used. According to the findings of this study, it concluded that the government will be able to develop an acceptable system by understanding the user’s demands and needs.

Mainly, e-filing system is introduced in Malaysia to reduce the incomplete forms submitted by taxpayers that occurs during manual submission. IRB has reported that more than 80% of

manual tax submission were received is incomplete. Therefore, incomplete tax forms submission will result in the increase of processing and management costs due to verification and preparation of tax refund. According to Tallaha et al. (2014), this e-filing system will result in taxpayers submitting income tax returns correctly and accurately since the system is designed to ensure that the taxpayers would not overlook any of the required information before proceeding for submission. This due to the e-filing system ability to auto calculate the total amount of tax payable. Hence, it will reduce miscalculations. Acceptance of e-filing system is still low in its initial implementation throughout the world. Only Singapore shows the highest usage level as compared to Malaysia and other countries as well. Tax regulators in Malaysia were still puzzled by the low acceptance of e-filing system at the initial stage of implementation. Therefore, more studies need to be conducted in order to identify the additional factors that leads to low acceptance from users. Regardless, whether taxpayer uses manual or e-filing platform, they still needed adequate tax knowledge in order to file a tax return.

Based on Santhanamery & Ramayah (2018) study, trust is found to be one of the important factors when it comes to determining continued usage of e-filing system in Malaysia. The researcher has investigated on impact of perceived usefulness and trust in developing the user's intention to adopt the e-government services. By this, the researcher is able to identify whether both variables have significant influence on the intention to use the e-filing system. According to the research finding, it shows that trust has significant relationship towards perceived usefulness leading to intention of usage. Meanwhile, this study is not investigating the general trust on e-filing system leading to continue usage intention but specifies more on the trust influence based on the security, respond time, availability, correctness, and system support. Therefore, all these variables will be examined in order to determine the relationship with

continuance usage intention of e-filing system. Security of e-filing system is developed to ensure that the system is protected from hackers. Response time is to identify how the system react to a request within minimal time. It also ensures the duration between the moment user initiated request and the system being able to reply the request is kept short. Meanwhile, availability is to ensure the system is fully functional and protected. Correctness is to indicate whether, the system works properly and producing correct output. Lastly, system support is a personalised support in order to access information without any issues. This service includes online support service, help desks and other similar facilities.

An electronic tax system is an online platform which allows taxpayer to access tax services through internet (Night & Bananuka, 2019). Actually, this system firstly commenced in the USA, by Internal Revenue Services. At that time, only tax refund service was offered. Besides that, the researcher finds that e-filing system improves tax compliance since it able to facilitate fast access to tax services without the need of visiting tax authority office. Furthermore, this system is user friendly, secured, provides a platform for payment, and it also provides some others services as well. As to date, there were many countries that have started to adopt this system. However, taxpayer in Kenya and Hong Kong have a perception that by using the electronic tax system it is not as comfortable compared to manual system. They assume that the electronic filing system is not easy to use and adopt because it affects tax compliance. But according to tax authorities, the electronic tax system allows taxpayers to file returns and make on time payment. Taxpayers are more likely to comply with paying taxes voluntarily if the tax system is transparent. Also the taxpayer expects the government to be transparent in utilizing tax revenues.

2.1.1 The advantages of e-filing system

In Malaysia, Inland Revenue Board (IRB) had been practising the manual way of submitting income tax return for a long time. Many efforts were undertaken in order to convert the manual tax filing system into e-filing system. One of the main advantages of adopting this e-filing system is its time and cost saving factors. This is because the tax return submission is done via a paperless environment. In addition, the e-filing system is easier and quicker to use as compared to the manual tax submission. The tax returns submission can be done by just clicking on the screen and the data will be submitted within few seconds (Sulaiman et al., 2005).

Moreover, the e-filing system is able to improve the efficiency of tax payment and refund processes. The e-filing system able to generate the acknowledgment slip upon submission of tax return. It also provides receipt of taxpayers' refunds much quicker through the e-filing system (Sulaiman et al., 2005). This response from e-filing system provides assurance that the taxpayers' return had been successfully received by the tax software. Indirectly, it also minimises the additional workloads of tax officers. Upon receiving verification from the e-filing system, taxpayers are able to obtain a record of submission in softcopy format for future reference which has little chances of losing document compared to the paper form.

The e-filing system helps to reduce human error rate during tax return process. Traditional way of filling tax return has numerous errors, which is mostly caused by miscalculations. According to Dorasamy et al. (2012), it is proven that there is only 1% possibility of taxes prepared electronically have errors. During in 1996 and 1997, the United State tax statistical proven that the error rate in e-filing system are about 1% to 3% which is lesser compared the error rate in

manual tax filling at 16% to 20%. Furthermore, other sources recorded that by using e-filing system, the error rate was less than 1% versus 20% for paper tax filing.

The advantages of e-filing system is that the electronic processes benefits tax officers more than just handling of tax returns. E-filing system provides a better and safer data storage that can be used in risk management system (Bank, 2014). The data that available in the system can be used for auditing and enforcement in the future process. Automatically it helps to establish a good system as basement for tracking case files which is necessary for effective auditing. Indirectly, this increases the speed and quality of data passed to auditors. This is because, the e-filing system is designed with standardized information which facilitates processes for taxpayers and tax authority. In short, the e-filing system is making compliance easier and faster.

According to Bank, (2014), the e-filing system helps to reduce corruption cases. It is because electronic transaction avoids face to face interaction. Thus, it would not create a chance for both parties to come up with illegal dealings. This to ensure the taxes are collected efficiently and timely. The possibilities of corruptions occurring is a generally accepted principle. In order to avoid the same issue arise in income tax service, the introduction of e-filing system is important so that the tax officer would not be able to handle any cash transaction. In short, the tax officers should not create any direct contact with taxpayers during payment transaction.

2.1.2 The disadvantages of e-filing system

The drawback of e-filing system comes from the internet facilities. To use or access the e-filing system, users are required to have an internet connection. Only through internet connection,

the users were able to open the IRB website. The users find it difficult because not everyone has internet connection in their phones during earlier days. Those who do not have internet facility are required to visit internet cafes to use the e-filing system. They considered this as an additional effort. Generally, the internet facilities issues are not something big to deal with but it is also a contributing factor to the disadvantages of the e-filing system. The users preferred to have a platform which can be used freely without any limitations at any place and at any time.

Generally, filing tax return via electronically is convenient but this action also carries with it a possible security breach risk. Perceived risk issues arise here when the user is afraid to reveal their personal information as required by the system such as bank account details, addresses, business incomes or personal incomes through online. When users submit the tax return in the e-filing system, the user is placing trust that the financial data uploaded over the internet are secured. Most of the networks are secure, however the risk of getting hacked is still possible in interrupting or retrieving user's sensitive and confidential financial data. In short, requirement of providing personal and confidential details in the e-filing system is one of the disadvantages because the users assume that the data transmitted over internet are not safe and could be stolen easily.

The next disadvantage of e-filing system is on the usage capacity of the system. The e-filing system does not support well during large usage or transactions (Sulaiman et al., 2005). For example, logging on to the website may take a longer time to access the e-filing system. The system will operate slower as many users are using the system at the same time. This situation usually occurs during the peak hour approaching submission deadline. Therefore, the tax officers or administrator must develop other alternatives to ensure the system runs smoothly.

The e-filing system also should be able to run or process smoothly when larger amount of transaction is made even though when there are many users using the system at the same time.

2.2 CHALLENGES OF IMPLEMENTING E-FILING SYSTEM

The implementation of e-filing system brings a lot of advantages for all parties and undeniably it also brings some challenges during certain circumstances. The main challenge that are faced by tax officers in implementing the e-filing system is when user having lack of knowledge on technology advancement. Certain group of users are still having a low knowledge of basic computer skills which are needed in the e-filing system. Thus, they would prefer to use the traditional way which is paper tax return submission. In short, taxpayers who are not comfortable with the technology development and are not confident in using the electronic device would experience difficulties in submitting their tax return through e-filing system (Sulaiman et al., 2005).

Taxpayers behaviour on the adoption of e-filing system is also one of the challenges faced by the tax authorities. For example, taxpayers from the older generation that are less exposed to computer devices are usually having problems to adopt the new way or e-filing system. They find it difficult to learn something new and reluctant to change to the new way of submitting tax return. In addition, they considered it as a waste of time to learn the new system when the tax return submission can be done through the manual way which in their opinion is easier and time saving. Perhaps they would continue to prefer and use the traditional service with paper submission for tax return (Sulaiman et al., 2005).

The other challenges faced by the tax authorities in implementing this e-filing system is regarding the uncertainty about security and privacy of information transacted through online. This is also one reason for the low usage of e-filing system among taxpayers. The new platform of the tax submission which is the e-filing system had created anxiety on users as they feel uncomfortable with the technology development and security. The tax returns had to be completed via online and are not allowed to be completed offline before submitting the softcopy to the IRB office. In short, security is a significant factor that influence users to use the electronic government applications (Bank, 2013).

2.3 FACTORS AFFECTING THE ADOPTION OF THE E-FILING SYSTEM

2.3.1 *Information quality*

Information quality is defined as the extent that the provided information best fits customer needs. The quality of information is usually measured based on how relevant, accurate, timely and complete is the information given to address user needs (Chen et al., 2015). This information quality relates to how well the information is provided in the system in order to facilitate the user of the system for filling and paying taxes. Browsing for information through the e-government webpage is the most common method for users in gaining knowledge regarding tax filing these days. By providing better quality of information a more favourable perception will be gained by users when browsing webpage of the system. Besides that, information quality plays an important role in user satisfaction, depending on the overall intention of the users in order to achieve targeted goals. This because the taxpayers must pay an exact tax amount liable and also ensure that all tax calculation are done correctly. Furthermore, if the provided information particulars are relevant, reliable, timely, complete and

responsive, then the users will experience satisfaction when using the system. This is because the provided information were able to help and guide users to use the system in a better way.

Information quality relates to user's appraisal on the system providing information that is based on the user's experience of using the system (Veeramootoo et al., 2018). Based on this evaluation, the information on the webpage are required to be relevant, personalised, complete, easy-to-use, and also it provide security aspects in order to encourage user to perform online transactions and to make tax payments. According to the researcher, information quality therefore expresses the objective and subjective perspective of consumed information. Thus, if the quality information is low, it will distract the users which eventually leads to higher information-processing costs. This shows that there is a relationship between information quality and continuance of usage that has been validated in other studies as well.

Based on the findings of this research, it shows that the IS success model presumes that information quality has a stronger influence towards user satisfaction. Taxpayers spend considerable time and effort on the e-filing system in order to file their income tax returns. According to researcher, the taxpayer should ensure that all calculations provided on the e-filing system are accurate. Tax authorities also need to ensure that there are no any deductible expenses omitted and information incompleteness (Veeramootoo et al., 2018). Thus, high information quality is important and critical to satisfy the users. The relationship between information quality and user satisfaction has been validated in prior studies by using the IS success model.

2.3.2 *System quality*

System quality is defined as a system that best addresses the user needs and expectations with users encountering minimal problems. System quality represents the characteristics of an online system that is favoured in the aspects of usability, reliability, fast response and adaptability (Veeramootoo et al., 2018). Therefore, if a system has the capability to provide speedier and simpler access to the users, then it would increase the user satisfaction level. Besides that, the IS success model identifies that system quality has an influence towards user satisfaction. The perception towards the system quality is formed when the user begins usage of the online system, specifically after users completes a certain task. There are certain aspects which could gain user satisfaction by using this e-filing system such as when the system has an ease of use, better accessibility and interactivity. Dissatisfaction is caused when users faces any problems while using the system or is forced to wait too long in order to access the system.

In IS success model, system quality is one of the most studied dimensions. It refers to the capability of an online system to process data transmitted without errors (Al-Mamary et al., 2014). A system often has multiple goals. The system utilises computer hardware and software, manual procedures, management and decision models and database. A system is also made up of sub-systems, which may be composed of further sub-systems. Therefore, the sub-systems are able to send and receive data from each other.

System quality can be viewed as the favourable aspects of an information system. For example, ease of use, system flexibility, system reliability, ease of learning, intuitiveness, sophistication, and response time (Al-Mamary et al., 2014). Ease of use defines the lower degree of difficulty faced by users in using the system. Moreover, the quality of an information system needs to be

flexible to ensure users fully utilise the e-filing system. Flexible information system means the ability to customise the system based on required conditions and due to internal and external changes. A system which has lower flexibility affects user satisfaction that will eventually impacts on the user engagement of the system.

Other than that, reliability is an important indicator of a quality information system. Reliability is known as the degree of which the users can trust the information system. Besides that, another important quality in information system is ease of learning. Ease of learning is the degree to which users perceives that the system is easy to learn. Overall, a good system needs features like intuitiveness, sophistication, and response times. All of these are the main important indicators which are needed in the information system. Response time is the length of time taken by a system to respond with any instructions that the system receives. A longer response time taken by the system may cause lower satisfaction among the users (Al-Mamary et al., 2014).

Nevertheless, based on Chen et al. (2015) findings, it is discussed that system quality is important especially for the government to properly render its services. The government website should provide easy access to information and also with a reliable and secured functions. This will be reflected as a good system quality design and therefore able to fulfil the users expectations on system performance. In short, system quality does impacts users especially when the user feels satisfied while using the system and do not face any difficulties throughout usage of the system.

2.3.3 Service quality

Service quality is defined as a service which best address customers' needs in terms of support required from the entire system. Service quality is measured based on empathy, responsiveness, reliability and assurance in order to improve system-user relationship which is important in achieving e-government success. A better service quality is able to improve users' satisfaction and intention in adopting the system. Besides that, this service quality is a determinant in fulfilling user's expectation to obtain simplified and improved services in order to handle users' problem (Chen et al., 2015).

In research conducted by Veeramootoo et al. (2018), it is suggested that a better service quality leads to loyalty among users towards the service provider. In information system context, users intention to continue using the system serves as their loyalty towards the e-filing system. When a high service quality of information system provided, the users level of satisfaction will also increase. Thus, users will be discouraged from switching to another alternative method.

Service quality has become one of the focus in marketing research as well as in information systems research currently (Hussein et al., 2011). This research study on service quality has critically identified some of the dimensions which reflects service attributes provided by businesses. In order to conduct this study, the researcher has prepared a scale which known as SERVQUAL. This scale consists of 10 basic dimensions to measure the quality of service. The SERVQUAL was later refined into five distinct dimensions which are responsiveness, assurance, empathy, tangibles and reliability. The responsiveness scale is being measured to identify the willingness in assisting the user and also to provide customer service. Assurance is to measure the courtesy and knowledge that the firm has and their ability to inspire

confidence and trust on the user. Meanwhile, empathy dimension is to measure individual attention given by the firms to provide their service and care towards user of e-filing system. Physical facilities, appearance of personnel and equipment were measured under tangible dimension. The fifth dimension is reliability which is used to measure the ability to perform all the promised services accurately and dependably.

When looking into the context of e-government, service quality might be an important factor to explain user's acceptance of e-services (Hussein et al., 2011). As it is believed that user perceived service quality of online differs from that of conventional. User might be satisfied with the current conventional service when they are dealing with the tax administration. In an online environment, the situation is totally different, where users will gain new experience when using the online system through the service offered, that they may not find in conventional. Thus, examining the quality of e-service could ensure continuous usage of the system. It is also believed that offering the best service will attract users to use online tax system and therefore gain advantages from it.

2.3.4 Trust in government

Trust in e-government is comparatively a new research area. According to Kurfalı et al. (2017), trust in e-government is defined as the aspect that is allowing individuals to willingly use e-government services and behave in a socially responsible manner for the fulfilment of trust after taking government characteristics into consideration. In this study the researcher discusses about the positive effects on trust factor towards the adoption of e-government services.

Trust in e-government consists of a number of sub-components which differs from study to study due to the high complexity of trust. Researchers states that trust has two objectives, one of which is the vendor who provides the service, and another objective is the mechanism that enables the service between vendor and user. In relation to that, the two aspects of trust are trust of web vendor and trust of internet in the context of e-government service. Therefore, these aspects of trust finally transform into trust of government and trust of internet (Kurfalı et al., 2017).

In the point of view regarding e-government context, trust of internet is defined as the beliefs from users regarding the reliability of internet to provide the information and to make online payment. Meanwhile, trust of government is the e-government users' perception on the integrity and ability of the government in providing the service. Positive relationship between trust of internet and trust of government on adoption of e-government services was shown in previous studies. Thus, in order to see the effects of both trusts, it should be measured separately in a research model.

Trust in government occurs if users have confidence with the government, reinforcing perceptions of reliability and integrity. To build a trust is an evolutionary process which mean that trust in government can quickly change depending on how the government is progressing with improvements. Moreover, trust in government on their website will be established if the users have trust towards the government agency and their intentions. Overall, willingness to adopt e-government service is fully depending on both trust in government and trust in technology (Chen et al., 2015).

2.3.5 Trust in technology

According to Hussein et al. (2011) findings, suggested two types of trusts in the context of e-government service. Firstly, is on the trust of the internet. This is identified as a key predictor of e-service adoption. Furthermore, this type of trust is associated with the institution-based trust due to the communities that exist on the internet varies according to their expectations. Secondly, is on the trust of the government which is related to the user confidence on ability of an agency to provide online services. The services and information which are provided by the government through the internet does not automatically build up users trust but is based on how they are being delivered. Issues like privacy, security, and fraud are still on the internet. Hence, the users are still concerned whether to adopt e-government technologies. The researcher further discusses on how the user trusts in web-based technologies are affected by issues such as in networks security, confidentiality, reliability of information, and jurisdiction. Therefore, the users must have confidence in the both the government and their technologies.

Trust in technology service has been explored widely in both e-commerce and e-government services. The researcher discussed that there are two types of trust which are trust towards the entity who is providing the service and trust on mechanism used (Schaupp et al., 2010). Trust in this study was developed from a traditional view of trust based in any specified entity which are trust on tax authorities who introduce e-filing system and trust in the reliability of enabling technology. Basically, users must have trust on the government agency when a new electronic system is implemented. According to e-government agency, users will be more likely to use the internet services which are provided by the tax agencies with a good reputation. However, the user's trust towards the e-filing provider is more important.

Moreover, trust on technology defines the perception about the availability of the necessary legal and technical structures such as guarantees, regulations, encryption or other procedures through internet to ensure the successful adoption of e-filing system. The development of technology reduces individual control over users' confidential information. Security and privacy usually arise as a key concerning factor when using online services. Therefore, the user relies on the channel where the service is delivered. Indirectly, the trust of technology is directly related to trust of the government as the users still have not experienced the service provided by the government. This research study concluded that user with higher level of trust on technology is more likely able to trust the government services (Chaouali et al., 2016).

In research study by Chen et al. (2015), finds that trust in technology has been an initial predictor of technology usage and is a fundamental construct to understand user perception towards e-government services. Further definition on trust in technology is the trust that the user has on the tools being used to deliver the services. In other words, trust in technology is vital to encourage users to trust on e-government website thereby transacting and revealing the accurate information in the e-filing system.

2.3.6 Perceived risk

The main risk that can be identified in this study is the intention of taxpayers to use e-filing system as it concerns on the perceived risk (Schaupp et al., 2010). It has a significant impact on user intentions. Perceived risk is composed of environmental and behavioural uncertainty. This environmental uncertainty takes place due to the unpredictable nature of internet based technology meanwhile behavioural uncertainty arises due to impersonal nature of internet. In short, internet is beyond the control of the user.

In e-commerce, perceived risk reduces user intention to disclose information and to complete transactions through online. This study suggest that perceived risk has the same effect on e-government adoption. Due to the uncertainties that surrounds the internet, based on the transactions and the consequences of unsuccessfully submitting income tax return, will lead to perceived risk significantly (Schaupp et al., 2010). This due to, when doing online submission, the system does not only request for tax related information but others such as bank and personal information also. Therefore, the question arises here by taxpayers on whether the e-filing system is safe to use. As a result, Malaysia has a low number of taxpayers submitting their tax return file through online (The Star, 2010).

The dimensions of trust and perceived risk could be the factors that contributes to user intention in adopting e-government system. It cannot be denied that trust become a central issue in all daily interactions, communications, and transactions especially when it is done remotely. Trust is found to be a significant antecedent of perceived risk. If there was no risk and actions could be taken with complete certainty, then trust is not required in this situation. Prior studies have discussed the relationship between trust and perceived risk. It was found that perceived risk decreases when trust develops. However, since risk itself is difficult to measure objectively, perceived risk is defined as the user's subjective expectation of suffering a loss in pursuit of a desired outcome (Hussein et al., 2011).

Generally, online tax system has two main processes involved during the online transaction which are the report and payment. Normally, the perceived risk is low when users are submitting their tax return. But when it comes to the online payment, the level of perceived risk could be high therefore resulting in less intention to adopt the system in the future. Thus,

trust of the internet and trust of the government should be examined accordingly together with perceived risk to find out their impact on intention to use (Hussein et al., 2011).

2.3.7 User satisfaction

Success of e-government also depends on the user satisfaction towards the adoption of e-filing system. Satisfaction is a subjective evaluation based on the variation of experiences assessed and made over the time. It is important to appreciate those who exerts effort to stay in connect with the e-government service and this indirectly will result in satisfaction. Users will reach a level of satisfaction when their expectation is fulfilled by providing them with quality services. Therefore, in order to retain users and acquire user satisfaction, a high priority should be given in handling their expectation (Chen et al., 2015). There is a significant relationship between user satisfaction and usage intention. This due to satisfaction has the strongest determinant in continuance of usage.

A study on user satisfaction has been conducted by Rahman et al. (2018), shows that user satisfaction is essential in today's business world. Even the researcher believed that in order to measure user satisfaction, service quality should be considered as one of the important factors. Therefore, the user of e-filing system will reach high level of satisfaction once the organisation are able to provide them with quality services. However, in order to retain users to adopt the system and acquire user satisfaction, a high priority should be given to service quality too. This service quality is meant to satisfy customers by meeting their expectations.

In order to measure the successful adoption of e-filing system, user satisfaction is considered to be one of the most important measure. This factor will be measured based on the overall IS success model. Besides that, the researcher also defines user satisfaction as approval or likeability of an information system and its output. According to Delone & Mclean user satisfaction is recipient response to the use of the output of an information system. Moreover, Delone and Mclean also further defined user satisfaction as an individual impact caused by as the effect of information on the behaviour of a recipient and indicates that it is closely related to an individual's performance (Al-Mamary et al., 2014).

In another research conducted by Veeramootoo et al. (2018), indicate that the intention to continue using an information system is fully based on the user satisfaction compared to prior information system usage. In this study, literature has proved that there is a close relationship between satisfaction and continuance of intention. For instance, in this research study of web based learning on continuance intention, which showed that satisfaction has the strongest determinant of continuance usage. Such relationship has been validated in some other studies too (Al-Samarraiea et al., 2017, and Lee & Kim, 2017). Besides that, in a review on the effectiveness of information system, it has been argued that measures of satisfaction are essential in the context of e-filing system.

2.3.8 Usage intention

Usage intention is defined as individual's intention to reuse or repurchase decision after their initial usage of services or products (Santhanamery & Ramayah 2018). The research on e-government nowadays are focusing on how to evaluate the continuance of usage intention by user rather than initial intention. The researcher examined the role of perceived usefulness,

perceived ease of use and computer self-efficacy in determining the user continuous intention to use e-government service or website. In conjunction to the research study, it is found that perceived usefulness has the strongest predictor of continuance in usage intention. Similarly, in other research it also found that perceived usefulness has a strong relationship with the user intention to adopt the e-filing system. Furthermore, the researcher also finds that perceived usefulness and trust has a significant relationship with the continuance of usage intention in e-government services.

Usage intention is defined as a long-term viability of an information system and its eventual success depends on its continued use rather than first-time use of the system (Ibrahim & Chandra, 2015). The researcher stated that continuance of intention describes about the user's decision to continue using any specific technology that users' have already been using. Even though the information technology is being successful at the initial stage of implementation, the users' will re-evaluate their decision and may decline the use of information technology in future. Currently, research on technology adoption has started to grow and received interests about the importance of individual use of the technology after initial adoption which is more of a concept on continuance usage intention.

As at the initial stage of adoption, it is an essential step to realise on an information system success, but its eventual success depends on the continued use of the system rather than first time use of the system (Ibrahim & Chandra, 2015). Furthermore, ineffective and non-frequent usage of a technology after the initial adoption, causes undesirable cost expenditures and waste of efforts invested on the development of any particular online services. While, with this continuance usage of online services, it able to contribute in generating profit, growth and also

expanding the service to next level with more improvements. With this, the service will be able to sustain and survive longer. Moreover, researcher further discussed that if the online technology service is not blooming, then it shows that the user is not utilising the system fully on continued basis. Thus, the users have to move from the initial adoption stage to continual usage basis. By this, usage intention in adopting a new system can be measured.

Overall, based on this research study it clearly shows that trust and system quality have a significant influence on continuance of intention to use the online technologies (Ibrahim & Chandra, 2015). This indicates that the secure transmission of personal and sensitive information particularly in online technologies will influence the level of user's continuous intention towards any particular online services. At the same time there were also some studies that found insignificant relationship between trust and perceived system quality towards the continuance of intention to use. Thus, this result reveals the inconsistency in nature of findings. However, the relationship of trust and perceived system quality on continuance intention received a minimal attention from researchers in the context of e-filing tax system. Hence, this research attempts to identify the influence of trust and perceived system quality towards continuance intention in the context of Malaysia.

2.4 THEORETICAL FOUNDATION

Theories that are being used in a research study is to help the researcher to design a research question, guide the selection of relevant data, interpret the data, and propose explanation of causes or influences. Theories can provide comprehensive understanding of things that cannot be pinned down. Besides that, theories provide researchers different point of views to address issues, focusing their attention on different aspects of the data and provide framework to

conduct their analysis. Therefore, a theory is needed to drive the research question. If in case the researcher has observed the gaps, then those gaps will become the research question. In this study, the researcher used two types of theories which are information system success model (ISSM) and trust theory.

2.4.1 Information system success model

Information system success model (ISSM) was developed by DeLone and McLean in 1992. It provides a clear taxonomy for operationalisation and conceptualisation of IS success model. This theory also able to explain the usage behaviour at the post adoption stage (Veeramootoo et al., 2018). The original model consists of six dimensions which are information quality, user satisfaction, use, system quality, individual impact and organisational impact. This model makes two important contributions in order to understand the IS success model. First of all it is able to summarise the IS success factors under a single research framework. Secondly, is on the temporal propose model and causal interdependencies between the categories.

A few years later, due to current changes in the environment, DeLone and McLean decided to revise and update the IS success model by adding in new construct. In the new construct, service quality is added as another dimension (Zheng et al., 2013). This variable is added in order to capture the quality of service against information quality and system quality which are able to measure the success of the IS success model.

The main reason of integrating this new IS success model is to ensure a deep understanding on the role of quality in the IS success post adoption stage. Thus, many researches have agreed that continuance intention gives direct impact to the characteristics of the system such as user satisfaction and perceived usefulness based on past experiences (Zheng et al., 2013). This IS

success model has been successfully used widely in many studies to study on usage of information in various contexts (Veeramootoo et al., 2018).

Moreover, this theory does not really discuss specifically on the roles of quality. According to DeLone and McLean, this net benefit variable cannot be understood and determined without interference of information quality and system quality variables. Therefore, the service quality which is added in this IS success model enable to relate the primary role of quality and incorporate the quality into the post adoption usage of the model (Zheng et al., 2013).

Even though, this IS success model can provide a guideline for usage of system from a quality perspective, yet it still focuses mainly on the intention to use. This intention to use refers to the first-time adoption intention of the user who did not attempt to use the system before. This IS success model does not clearly explain the reason on why the existing users continued using this IS success model. Researcher uses IS post adoption studies as a guideline to create a relation between satisfaction, net benefits and continuance intention as dependent variable (Zheng et al., 2013).

In this updated IS success model, it consists of 6 dimension which are service quality, system quality, information quality, user satisfaction, intention to use and net benefits. This theory is able to interpret a system in terms of service, system and information quality. These factors will give impact to the user satisfaction and intention to use. As a result of using the system, certain benefits can be achieved. Thus, the net benefits can positively or negatively influence the user satisfaction and intention to use the system. IS success model is used in Chen et al. (2015) research framework which has been developed to evaluate the usefulness and user satisfaction of the e-filing system.

2.4.2 Trust theory

The trust theory is developed in Hussein et al. (2011) research framework. Trust can be classified under three main construct which are trust in government, trust in technology and perceived risk. Trust in government and technology plays an important role therefore it needs to be examined accordingly with perceived risk to identify its effect on the intention to use the system. If the user has trust that the government are able to provide good services, then the users will also trust and adopt any other government's initiatives. Furthermore, trust can be divided into three modes which are process based trust, institution-based trust and characteristics-based trust (Hussein et al., 2011). These types of trust can be created in government context if the government agency are able to ensure their technologies are well maintained and prepared with high security system before they are implemented.

Besides that, according to Chaouali et al. (2016) findings, trust has a strong and positive impact towards e-loyalty and e-commerce adoption. Trust theory is more relevant in the context of e-government compared with others. This is because if the users are willing to use any e-government services, they will not find another replacement or alternative offered by the same organisation. Specifically, if the user does not have trust on the e-filing system, they would resist to use it and will continue using the traditional methods such as visiting the tax officer personally. Therefore, security and confidence must be established in order to encourage users to use e-government platform.

Trust is also one of the elements which is needed in online services in order to sustain long term relationship and success of an e-government platform and website (Ibrahim & Chandra, 2015). The importance of trust variable in a research have been confirmed by various online

services such as e-government and e-banking line, as the interaction takes place in a virtual form which does not involve face-to-face interaction. However, trust is considered as critical since it involves risks and uncertainties through online platform. It also raises concerns among users regarding the privacy and security threat during exchanges of personal and sensitive information through internet to the service provider. For example, risk of losing any sensitive or personal data when making online payment by using this e-government service.

Based on Ibrahim & Chandra (2015) study, trust theory is defined as the willingness of an individual to be at risk due to the actions of another individual based on the assumption that the others will execute a specific action, disregarding the ability to keep track or control over the action. Furthermore, trust is also defined when users trust the e-government services that the system are able to protect the data well and any payment transactions made will be secured and recorded accordingly. Therefore, this shows that there is involvement of relationship between two important parties which are the users of the system and the government agency.

According to Ibrahim & Chandra (2015) study, the researchers found that this trust theory can be viewed from another three dimensions which are integrity, benevolence and ability. Integrity means the belief that the trustor keeps up with their promises and also being honest. Meanwhile, benevolence means the belief that the trustee able to consider on the interest of the trustor. Ability means the belief that the trustee has the needed knowledge and skills in order to satisfy trustor's expectation.

Nevertheless, this trust is highlighted in order to indicate that it is important when a new or existing user adopts the advanced technology which has been implemented. Although trust is considered widely in technology adoption, trust is actually more important to be considered in

research of post adoption as trust blooms gradually with changes in technology over time. This is due to during the adoption stage, trust is build based on expectation while in continuance of intention, trust is build based on users experience in adopting with the technology.

On the other hand, trust theory is composed of derivative elements which are institution-based trust, disposition to trust, trusting intentions and trusting beliefs (Susanto et al., 2016). This institution-based trust is a favourably recognised condition in the situational success of an individual's life. Meanwhile, disposition to trust refers to the individual willingness to rely on others in general. Trusting intention refers to the individual's willingness to depend on others despite another individual giving up. Lastly, trusting beliefs which refers to the individual beliefs that the other individual has characteristics which is favourable. Overall, the range of trust may change as it depends on the experience, the relationships, evolution phases, and also the suggestion of the remaining conditions.

2.5 SUMMARY

There are a lot of studies on e-filing system mainly focusing on individual tax filing, but this research focuses on corporate tax filing. This is to address the complex issues that are related to corporate tax filing. Therefore, in order to conduct this research, the researcher had selected certain factors that fits best in the research to understand further on their influence towards user satisfaction and usage intention in adopting e-filing system. Based on prior literature review, the most important factors that influence towards user satisfaction and usage intention are information quality, service quality, system quality, trust in government, trust in technology, and perceived risk as researched by Chen et al., (2015), Veeramootoo et al., (2018), Al-Mamary et al., (2014), Hussein et al., (2011), Kurfah et al., (2017), Schaupp et al., (2010), and Chaouali

et al., (2016). Furthermore, there are various theories that used in prior literature review to justify the research framework such as technology acceptance model (TAM), theory of reasoned action (TRA), diffusion of innovation (DOI), expectation confirmation theory (ECT) (Veeramootoo et al., 2018 & Kamarulzaman & Azmi, 2010). However, for this research amongst the most appropriate and suitable theories are information system success model (ISSM) introduced by DeLone and McLean (1992) and trust theory. Therefore, this research is able to provide contribution to existing literature with the combination of these two theories.

University of Malaysia

CHAPTER 3: RESEARCH FRAMEWORK & METHODOLOGY

3.0 INTRODUCTION

This chapter begins with Section 3.1, an introduction to the research framework that used in this research. Then followed by Section 3.2, a series of detailed clarification on the hypotheses development in order to achieve the research objectives outlined in Section 1.3. With reference to the extent literature, the hypotheses are developed. In Section 3.3 will explain further on research design and procedure including on sampling design, selection of measures, questionnaire design, pre-test study, data collection procedure, and data analysis procedure that used in this research. Next, the declaration of ethics is also included in Section 3.4. Finally, to conclude, a summary of overall research framework and methodology in Section 3.5.

3.1 RESEARCH FRAMEWORK

There are many e-filing studies such as (Schaupp et al., 2009, Hussein et al., 2011, Chaouali et al., 2016, Zaidi et al., 2017 and Veeramootoo et al., 2018). However, there are limited studies that applies the information system success model (ISSM) together with trust theory. Thus, the research model that is developed in this study is based on the information system success model (ISSM) and trust theory. Besides that, this research model consists of six factors that affecting user satisfaction and usage intention as dependent variables. A total of eleventh hypotheses will be tested in this research. The layout of this research model are based from several source such as Chen et al (2015), Veeramootoo et al (2018), Schaupp et al (2009), and Hussein et al (2011).

3.2 HYPOTHESES DEVELOPMENT

3.2.1 *Information quality*

Information quality is measured by evaluating the performance of the e-filing system based on users' experience (Veeramootoo et al., 2018). This evaluation is conducted based on features, easiness, personalized and security aspects of the e-filing system. Low information quality causes users to get distracted and consequently discontinues the usage of the e-filing system. Therefore, high information quality is critical to ensure continuous adaptation of the e-filing system.

Information quality is also a measure on the extent of the information provided best fits user needs. It usually measured based on accuracy, relevance and furnishing users with complete and up-to date information. The user must ensure that all the particulars provided have supporting documents especially for tax deduction. Hence, the users will feel more comfortable and confident to use the system since such information may lead them to use the e-filing system better.

The proposed hypothesis is:

H1: Information quality positively affect usage intention.

IS success model shows that information quality also influences user satisfaction (Veeramootoo et al., 2018). The user of e-filing system spend considerable time and effort in order to file tax return of taxpayer. The user also must also ensure that all calculations are accurate when filing tax. This is to avoid deductible expenses from being omitted.

This information quality has very important role as it leads to user satisfaction. Since taxpayers are paying tax, they needed to disclose accurate details in the system. This is to avoid any wrong or false details being provided, which will later impact on the tax payable. Thus, if all of the information disclosed is relevant, accurate and complete, the user will feel satisfy to use the e-filing system as all of this information are able to lead them to use the system in a better way.

The proposed hypothesis is:

H2: Information quality positively influence user satisfaction.

3.2.2 Perceived risk

Perceived risk is one of the important variables in e-filing system. Perceived risk is measured based on amount of unreliability that users faced when using the e-filing system (Veeramootoo et al., 2018). Perceived risk influence user's intention to adopt e-filing due to various uncertainty which are related to the internet. This situation arises while disclosing personal information during the tax return process.

In this context, perceived risk means the risk of exposure or loss of personal information while using online transaction. Personal information is highly confidential whereby it needs to be protected while doing online tax return. Thus, the users or taxpayers trust towards the e-filing system will increase with lower perceived risk. Although perceived risk is not included in the IS success model, this variable still influences the usage intention in adopting e-filing system.

The proposed hypothesis is:

H3: Perceived risk negatively affects usage intention.

3.2.3 *Service quality*

A better service quality creates a sense of loyalty among users to continue using the system. A taxpayer's intention to continue using the e-filing system shows their loyalty towards the e-filing system. There are a number of prior studies (Hussein et al., 2011 & Veeramootoo et al., 2018) that have validated the relationship between loyalty and service quality are positively related. As an example of good service quality can be seen from the IRB website that provides a search function which allows the user to search for any information regarding tax submissions.

The newly digitalized e-filing system is developed to increase tax submission. Therefore, it allows taxpayers to submit their income tax return on time. Through this platform many taxpayers have come forward to complete their responsibility due to the ease of use of the e-filing system. Furthermore, tax officers are also contributing in educating the taxpayers or the user regarding the e-filing platform.

The proposed hypothesis is:

H4: Service quality positively influences usage intention.

The success or failure of an organisation fully depends on the service quality provided (Rahman et al., 2018). This is because the customers are able to evaluate and give judgement based on the service quality that is provided. On top of that, one of the important elements in maintaining service quality to e-filing users is through promises made by the service providers. The service provider should act responsively and effectively in overcoming the problems so that service quality can be improved in order to gain customer satisfaction.

This service quality is an important key because timeliness in responding to the service request is able to influence the user satisfaction. When the service quality provided is good, the satisfaction level of using the system will also increase. Thus, it will not encourage the users to switch to other alternatives.

The proposed hypothesis is:

H5: Service quality positively influence user satisfaction.

3.2.4 System quality

E-filing is an easy, flexible and convenient system for taxpayers. It helps the taxpayers to file tax return from anywhere and at anytime. It means the taxpayers can access to the e-filing system from home and workplace without any disruptions. E-filing systems increases the quality and quantity of information available to the tax officers (Chen et al., 2015).

The user of e-filing system is expecting a system with features of adaptability, reliability, and availability at all time. A system should be able to respond and process information quickly in order to improve usage of the system. Problems such as system downtime due to technical issues or heavy traffic especially during peak season causes the e-filing system unable to work smoothly.

The proposed hypothesis is:

H6: System quality positively affect usage intention.

The effect of system quality to user satisfaction is significantly positive if the users do not face any difficulty when browsing the website (Chen et al., 2015). Besides that, if the system is able to fulfil user expectations by improving the e-filing system, the user will be satisfied and continue to use the system. However, the impact of system quality on satisfaction will be reduced in case the user is internet literate and have high self-efficacy as this kind of user are mainly focusing on such features just to fulfil their tax obligations.

Perception towards system quality arise when the taxpayers interact with e-filing system, especially after completing certain task through online. User satisfaction is achieved when certain aspects like ease to use and accessibility are fulfilled. On the other problems such as low connection, or longer waiting time for the website to refresh especially during the peak season, would reduce user satisfaction of the system. This directly gives negative result.

The proposed hypothesis is:

H7: System quality positively affects user satisfaction.

3.2.5 Trust in government

E-government is defined as the selection, implementation and use of information to provide public service (Chen et al., 2015). Trust can be categorised into two groups which are trust towards the agency providing the service and trust towards the medium used to deliver the service. This trust can be developed by the tax officers through addressing technical issues that arises. This causes the users to continue use the system.

The trust towards government is developed when the user has confidence with government agency and therefore are willing to support government efforts in implementing any new system. Trust on government can vary quickly depending on how the government meets users obligations and expectations. If the government are able to rectify all rising issues pertaining the system, then the user will be satisfied with the respond given. In short, the government needs to be prepared to engage users and taxpayers in their services.

The hypothesis is proposed as follows:

H8: Trust in government positively influence user satisfaction.

3.2.6 Trust in technology

Trust is a reliance of a person on a positive expectation. Users must have trust towards government agency who are providing an electronic system. Furthermore, user's acceptance towards the electronic service is an evidence of trust in technology. The user of e-filing system will be more likely to use the online services that has a good reputation provided by the IRB (Schaupp et al., 2010).

The e-filing system is a government initiative in developing a better taxation system. Therefore, filing tax return electronically are more effective and accurate. It also ensures the taxpayers to be refunded quicker. Furthermore, after submission of tax (Form C), the user will receive an acknowledgment of Form C submission from the IRB. This will serve as an evidence record for the users of e-filing system.

The following hypothesis is proposed:

H9: Trust in technology negatively influence perceived risk

Internet acts as a medium of communication for interacting with e-government. The user trusts the e-filing system since the system provides all necessary information which are needed by the user (Chen et al., 2015). Furthermore, the system is also protected by security features such as antivirus, firewalls and the Intrusion Prevention System (IPS) (*The Star Online, 2018*). These features are designed to protect and prevent the system from unauthorized access or vulnerability to any cyber-crime.

Trust in technology develops further when the user is prepared to share their personal information such as bank account number. This action shows that the user is ready and willing to adopt the online e-filing system. Nevertheless, it also creates a sense of security among users and eventually have the trust to perform online transactions due to the users being confident and satisfied with technology advanced encryption which are protected and safe to use.

The following hypothesis is proposed:

H10: Trust in technology positively influence user satisfaction.

3.2.7 User satisfaction

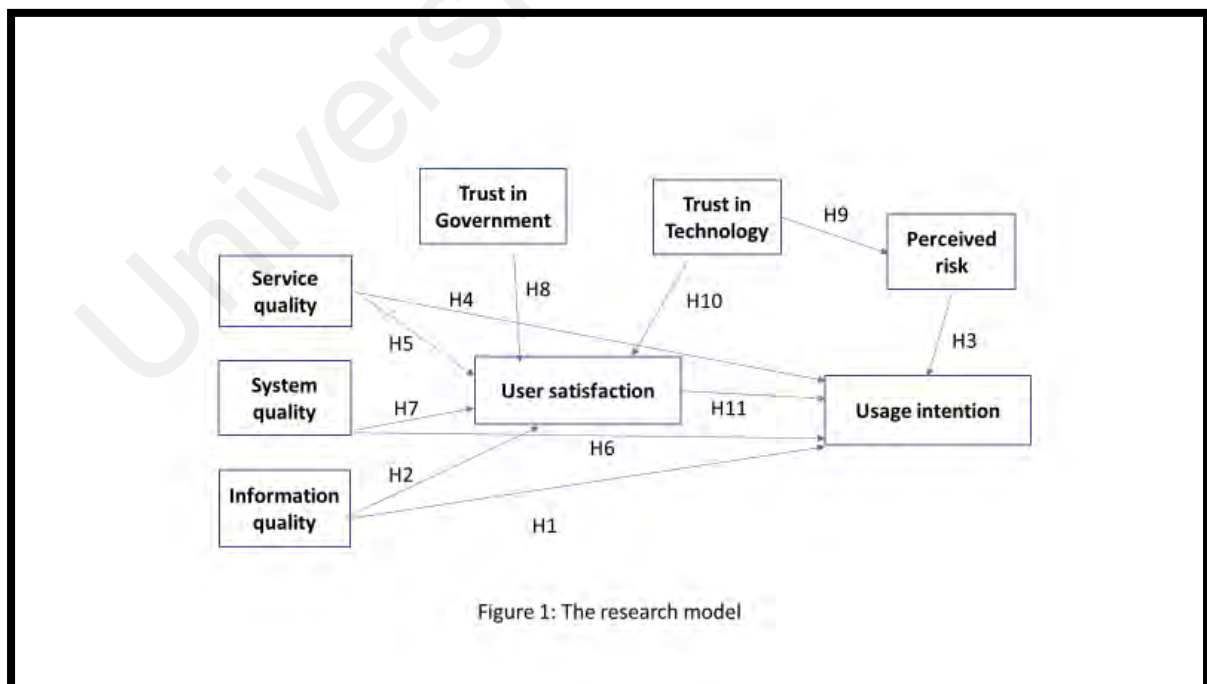
The success of an e-government is dependent on the user satisfaction with the e-filing system (Chen et al., 2015). This user satisfaction is measured through user's psychology which is affected by their experiences with the e-filing system. The user must accept the system to be useful to continue using the system. If the system has been useful in performing its function, it will increase work productivity as well.

E-filing system has been developed to meet government agency needs. Meanwhile, the users of e-filing system are tax practitioners and taxpayers. Therefore, user satisfaction of these group is worth considering to encourage the continuity of usage in the future. E-filing system should be efficient in fulfilling the needs of users. The tax officers should always be available to the users of e-filing system to solve any technical issues faced by them. There is significant relationship between user satisfaction and usage intention (Chiu et al., 2007, & Zheng et al., 2013). User satisfaction has the strongest determinant in continuance of usage. Moreover, this relationship has been validated in other studies (Al-Samarraiea et al., 2017, Joo et al., 2018, Lee & Kim, 2017, & Weng et al., 2017).

The hypothesis is proposed as follows:

H11: User satisfaction positively influence usage intention.

Based on the development of the hypotheses, the research framework is mapped in Figure 1.



3.3 RESEARCH METHODOLOGY AND PROCEDURES

3.3.1 Type of study

This research applied quantitative approach to collect primary data through questionnaire in order to explain the research questions. By relying on quantitative approach in data collection process, it able to determine the targeted population interest which able to generate a reliable analysis of the research problem. Meanwhile, qualitative approach is unable to achieve the structured approach in receiving responses within the time frame (Fisher, 2010). However, questionnaire is suitable method to collect data since, the aim of this research is to examine the user satisfaction and usage intention to use e-filing system towards specify targeted group of people only. Therefore, the quantitative approach of questionnaire allows to distribute set of questionnaires to the sample group needed. The hypotheses are tested in order to predict each relationship of the variables.

3.3.2 Unit of Analysis

The unit of analysis is the user of e-filing system engaging in companies' tax return within Malaysia. This study was conducted on users who prepares tax return for companies (form C) and works in private or government sectors.

3.3.3 Sampling Design

Sampling size is calculated with reference to Business Research Method book, by Kumar et al. 2012. The population for tax practitioners is 3,376 (*source from IRB website*). Based on marginal error of 10% with confidence level of 95% and the population of 3,376, the ideal sample size is 94. Meanwhile, the population for tax officers in Malaysia cannot be obtained.

Thus, sampling for tax officers could not be done but it is assumed that roughly the same population as tax practitioners. Based on marginal error of 10% with confidence level of 95% and the population of 3,000, the ideal sample size is 94. Therefore, 200 questionnaires is prepared based on the total sample size of 188.

This study uses snowball sampling technique. It is used in circumstances where there is difficulty in finding potential respondents. Therefore, researcher would usually first recruit from a small number of initial respondents who fits the research criteria to participate in the research study. The agreeable respondents are then asked to recommend other similar respondents who fits the research criteria. Next, the willing participants are then similarly asked to recommend other respondents as well. This process ends after the required sample size has been achieved.

The advantage of using snowball sampling in a research is that it can be completed in short period of time. Besides that, this method has the ability to recruit otherwise hidden respondents. This sampling do not require much planning in data collection process since the respondents will themselves recruit similar future respondents. By not engaging in this method, it might be impossible to conduct research due to lack of respondents. However, there are disadvantages of this sampling technique such as certain respondents are hesitant to disclose personal information of their peers. Other than that, oversampling from a particular profile of respondent may lead to bias. Therefore, in order to avoid these issues, the researcher shall take into account such factors.

Snowballing sampling is used in this study on respondents who actually uses the e-filing system for company tax purpose. Two tax officers were recruited to participate in this research and also to distribute the questionnaires among similar respondents. Meanwhile, seven users of e-filing system were recruited to participate and to distribute the questionnaires as well. Those who never handle companies tax (Form C), will not be selected to participate in the questionnaires.

3.3.4 Selection of measures

This study targets on users who prepare tax return for the companies (form C). The user of e-filing system are the tax practitioners who does the filing for corporate taxpayers and IRB officers who involve directly with corporate tax filing. The research aims are to analyse the factors that influence the user satisfaction and usage intention to adopt the e-filing system. Users who deals with companies tax (Form C) are chosen as sample for this research study. This sampling is due to limited study performed on e-filing system focusing on companies tax. Most of the e-filing studies only focuses on individual tax. Measurement of items for every construct was used from prior studies (Chen et al., 2015, Hussein et al., 2011, Rahman et al., 2018, Veeramootoo et al., 2018, & Chaouali et al., 2016) and modified accordingly when designing the questionnaire. Table 1 below shows the sources of measurement used in this study to design the questionnaire.

Table 1: Measurement of items

Variable	Construct	Items	Sources
Independent	Service quality	7	Chen et al., (2015); Hussein et al., (2011); Rahman et al., (2018)
	Information quality	5	Veeramootoo et al., (2018)
	System quality	6	Chen et al., (2015)
	Trust in government	5	Chen et al., (2015); Chaouali et al., (2016)
	Trust in technology	6	Chen et al., (2015); Hussein et al., (2011)
Dependent	Perceived risk	4	Veeramootoo et al., (2018)
	User satisfaction	6	Chen et al., (2015); Rahman et al., (2018)
	Usage intention	4	Hussein et al., (2011)

3.3.5 Questionnaire design

Questionnaire was designed in order to collect data for this study. The questionnaire consists of 4 sections. Section A was used to collect data related to service quality, system quality and information quality which consists of 18 questions. Section B consists of 15 questions covering on trust in government, trust in technology and perceived risk. Section C is about user satisfaction and usage intention consisting 10 questions. Demographic details of the respondent's profile includes age, gender, academic qualification, occupation and years of experience are collected at the last section of the questionnaire. These demographic details are measured by using nominal scale. Interval scale is used to measure for section A to section C. Respondents are required to read and indicate to what extent they agree or disagree with each of the statement that was structured in section A to section C by using the seven-point Likert scale. The rating are as follows: -

- Strongly disagree* **1**
- Disagree* **2**
- More or less disagree* **3**

<i>Neutral</i>	4
<i>More or less agree</i>	5
<i>Agree</i>	6
<i>Strongly agree</i>	7

3.3.5.1 Independent variables

Independent variable is defined as the variable that is presumed to influence other variables. It is known as the presumed cause meanwhile dependent variable is the presumed effect. In other words, independent variable represents the reason or cause for an output. Any changes in this variable directly affects the dependent variable.

3.3.5.2 Service quality

In section A, service quality was measured by seven items using a seven-point Likert scale ranging from “strongly disagree” (1) to “strongly agree” (7). These items were adapted from (Chen et al., 2015, Hussein et al., 2011 and Rahman et al., 2018). Example of questions are: -

- *Service provided by e-Filing system is user friendly (SQ1).*
- *Pages at e-Filing system does not crash after enter information (SQ2).*
- *The e-Filing system protect all personal information (SQ3).*
- *The e-Filing system does not share personal information with other sites (SQ4).*
- *This e-Filing system is always available at all the time for transaction (SQ5).*
- *The texts on the e-Filing system are easy to understand (SQ6).*
- *Administrators of e-Filing system are never too busy to respond to your questions (SQ7)*

3.3.5.3 Information quality

Five items was used to measure information quality by using a seven-point Likert scale ranging from “strongly disagree” (1) to “strongly agree” (7). The items for information quality were derived from (Veeramootoo et al., 2018). Example of questions are: -

- *The information provided by the e-Filing system is accurate (IQ1).*
- *The information provided in the e-Filing system is up-to date (IQ2).*
- *The information contained on the e-Filing system is in the appropriate format (IQ3).*
- *The information is available in printable form (IQ4).*
- *The e-Filing system provides necessary information exactly when I need it (IQ5).*

3.3.5.4 System quality

The measure was derived from (Chen et al., 2015). There was a total of six items using a seven-point Likert scale ranging from “strongly disagree” (1) to “strongly agree” (7). Example of questions are: -

- *The e-Filing system enables me to accomplish task quicker (SYQ1).*
- *The e-Filing system requires a lot of effort to use (SYQ2).*
- *The e-Filing system provides all the necessary facility that needed to be completed through online (SYQ3).*
- *The e-Filing system provides all the necessary forms to be downloaded (SYQ4).*
- *The e-filing system can be accessed immediately during peak time (SYQ5).*
- *LHDN officer provides helpful instruction for performing my task in e-Filing system (SYQ6).*

3.3.5.5 Trust in government

In section B, trust in government was measured by items adapted from (Chen et al., 2015 and Chaouali et al., 2016). It has a total of five items measuring trust in government. Example of questions are: -

- *I believe that the LHDN acts in tax payer’s best interest (TIG1).*

- *I believe that the LHDN is genuine in it's dealings (TIG2).*
- *I believe that the LHDN is competent (TIG3).*
- *This e-Filing website would be trustworthy (TIG4).*
- *In general, the LHDN is reliable to meet their obligations (TIG5).*

3.3.5.6 Trust in technology

Trust in technology were measured with six items using a seven-point Likert scale ranging from “strongly disagree” (1) to “strongly agree” (7). Items were adapted from (Chen et al., 2015 and Hussein et al., 2011). Example of questions are: -

- *The Internet has enough safeguards to make me feel comfortable using it to transact personal business with LHDN (TIT1).*
- *I feel assured that the technological structures adequately protect me from problems on the Internet (TIT2).*
- *I feel confident that encryption with technological advances on the internet make it safe for me to transact (TIT3).*
- *In general, the internet is now a safe environment in which to transact business (TIT4).*
- *The LHDN e-Filing website can be trusted (TIT5).*
- *The LHDN can be trusted to carry out online transactions faithfully (TIT6).*

3.3.5.7 Perceived risk

Four items using a seven-point Likert scale was used to measure perceived risk ranging from “strongly disagree” (1) to “strongly agree” (7). The items for perceived risk was adapted from (Veeramootoo et al., 2018). Example of questions are: -

- *It is not secure to use e-Filing system because of privacy issues (PR1).*
- *There is possibility of the e-Filing system malfunctioning (PR2).*
- *There is a risk of hacking personal details using e-filing system (PR3).*
- *The decision of using e-Filing system is risky (PR4).*

3.3.5.8 Dependent variables

Dependent variable is defined as the variable that is dependent upon other factors measured. As the researcher changes the independent variable, it will directly impact the dependent variable. This variable is expected to change as it is affected by the independent variables. In short, this variable responds to the independent variables.

3.3.5.9 User satisfaction

Meanwhile in section C, user satisfaction was measured by item derived from (Chen et al., 2015 and Rahman et al., 2018). It has a total of six items measuring user satisfaction. Example of questions are: -

- *I feel that the e-Filing system adequately meets my needs of interaction with the LHDN (US1).*
- *I feel that the e-Filing system is efficient in fulfilling my needs of interaction with the LHDN (US2).*
- *I feel that the e-Filing system is effective in fulfilling my needs of interaction with the LHDN (US3).*
- *I am satisfied with the e-Filing system related to security provided (US4).*
- *I am satisfied with the e-Filing system in terms of privacy issues (US5).*
- *Overall, I am satisfied in using the e-Filing system (US6).*

3.3.5.10 Usage intention

Usage intention were measured with four items using a seven-point Likert scale ranging from “strongly disagree” (1) to “strongly agree” (7). The item for usage intention were derived from (Hussein et al., 2011). Example of questions are: -

- *I would use the e-Filing system for gathering information about LHDN (UI1).*
- *I would use the e-Filing system provided over the web (UI2).*

- *Interacting with LHDN over the web is something that I would do (UI3).*
- *It is likely that I would transact with the e-Filing system in the near future (UI4).*

3.3.6 Pre-test study

Once the questionnaire is prepared, a pre-test study is required for validation purposes. The purpose of a pre-test study is to examine time taken for completing the questionnaires and also to test the validity and reliability of the context. The questionnaire was validated by 4 users of e-filing system and an academic expert in tax. Besides that, based on the pre-test feedback, the questionnaire was revised in order to ensure that the questions prepared is understood easily and to avoid wrong interpretations. Before the questionnaire is distributed to respondents, a promise of anonymity is made by the researcher.

3.3.7 Data collection procedure

After revision of the questionnaire, the final questionnaire consists of 43 questions as well as some inquiry on the demographic details of respondents. A total of 200 sets of questionnaires are prepared for distribution, whereby 100 sets of questionnaires are distributed to tax officers and the remaining 100 sets to tax practitioners. The questionnaires are distributed according to sample size of each group. Therefore, only one hundred and eighty-seven respondents completed the questionnaire and were received back. Prior to the distribution, respondents need to confirm their experience in using e-filing system. Only with a confirmed experience were they be able to proceed to participate in answering the questionnaire. Thus, there were difficulties during the collection of data since most of the respondents did not return back the questionnaire within the set time period and follow up is needed through messaging and calls. This follow up is also to encourage the respondents to provide feedback and to clear any doubts

they have about the questionnaire. There were also some missing questionnaires. Overall, the collection of data was done within 2 months.

3.3.8 Data analysis technique

Upon the completion of data collection, the data needs to be converted into meaningful information by analysing them. The purpose data analysis is to test the generated hypotheses in this study. Therefore, this study uses two types of statistical analysis software which are Statistical Package for the Social Sciences (SPSS) and Smart PLS.

SPSS software is a user friendly, flexible and comprehensive statistical analysis and data management solution. Whereby, this software is able to convert data from any types of files into reports, graphs, charts and descriptive statistics. This software also able to conduct complex statistical analyses. Furthermore, this software is being used widely especially in research studies for statistical analysis purpose (Ong et al., 2017).

In this study, SPSS version 23.0 software is employed to analyse the demographic measures. First of all, the data needs to be recorded in excel before transferring them into SPSS software. Next process is data cleaning and screening. This process is to ensure that data has been transcribed accurately by eliminating missing data and inconsistent responses. The process of data cleaning and screening has a vital role in data analysis since any failure may cause problems which affects the results of the statistical test (Hair et al., 2010).

Hence, once the data screening is completed, the data need to be coded accordingly to the groups created in the software. For example, gender; Male represent 1 while Female represent 2. Then, frequency distribution needs to be generated for each of the variables in order to check for any missing data. If any incomplete and unusable questionnaire were found, the data needs to be deleted as missing responses. According to this study, there is no any missing data found.

Smart PLS also known as partial least square structural equation modelling (PLS-SEM). It is able to describe the relationship between the indicators and variables. This software also explains the reliability and validation values for each construct and are able to compare results from different studies. Moreover, this model includes structural and measurement model. Structural model explains the relationship between the independent and dependent variables. Meanwhile, measurement model explains the connection between variables and indicators. The indicators are able to describe and measure the variables if the variables are not measurable (Sander & The, 2014 and Wong & Kay, 2013).

PLS-SEM was done using Smart PLS version 3.0. Smart PLS was used to test the hypotheses whether it is significant or insignificant by running the PLS and bootstrapping approach. Two analytical procedure steps are suggested by Anderson and Gerbing (1998), which is to analyse the measurement model at first place then followed by the structural model testing (Santhanamery & Ramayah, 2018). These steps are to ensure that the validity and reliability of the measures are assessed before applying it to the proposed model.

Basically, Smart PLS is used to ensure optimal prediction accuracy. By this, it is able to identify those variables that are actually influencing other variables. According to Chen et al. (2015), it

is useful when the research model is complex with small sample sizes, large numbers of indicators and moderators. This study research model also consists of many indicators thus, by using this Smart PLS software significant values can be identified easily.

3.4 ETHICS AND RISK

Data collection process is done in lieu with University of Malaya Code of Research Ethics and Manual of Responsible Research by UMREC and approval clearance has been obtained. Before answering the questionnaire, the respondents need to confirm their experience in handling e-filing system for companies. Upon on confirmed experience, were able to proceed to participate in answering the questionnaire. Respondents were informed that the results of responses will be kept private and confidential. The respondents also can withdraw at any stage or skip some of the questions while answering. Prior to distribution of questionnaire, there are risk assessment such as missing questionnaire, respondents did not return back the questionnaire within time frame and need to follow up. However, it is important for researcher to meet the standard of ethics in order to protects the results data with integrity.

3.5 SUMMARY

Under this chapter, it discusses further on the hypotheses developed. This research applied quantitative approach, whereby the data are collected through questionnaire. Besides that, this research uses snowball sampling technique in order to find potential respondents who fits the research criteria. The questionnaire was design based on prior studies such as Chen et al., 2015, Hussein et al., 2011, Rahman et al., 2018, Veeramootoo et al., 2018, and Chaouali et al., 2016. Once the collection of data done, the data are analyse using two types of statistical software which are Statistical Package for the Social Sciences (SPSS) and Smart PLS.

CHAPTER 4: RESEARCH RESULTS

4.0 INTRODUCTION

This chapter consists of a detailed analysis of the finding starting with descriptive statistics of demographic analysis of the respondents gathered in Section 4.1. Further, Section 4.2 will start on the multivariate analysis for PLS SEM by looking at the measurement model first in Section 4.2.1 and followed by the structural model in Section 4.2.2. At the end of discussion, Section 4.3 will discuss on the findings according to developed hypotheses in this research. Finally, in Section 4.4 summaries the research results based on developed hypotheses.

4.1 DESCRIPTIVE STATISTICS

Table 2. Demographic information of respondents

Measure	Items	Frequencies	Percent
Gender	Male	74	39.6
	Female	113	60.4
	Total	187	100
Age	25 years and below	56	29.9
	26 to 45 years	106	56.7
	45 years and above	25	13.4
	Total	187	100
Academic Qualification	Diploma/ Undergraduate	83	44.4
	Postgraduate	40	21.4
	Professional	49	26.2
	Others	15	8.0
	Total	187	100
Occupation	Accounting/ Audit firm	90	48.1
	Government/ Professional body	97	51.9
	Total	187	100
Years of experience	5 years and below	104	55.6
	6 to 15 years	54	28.9
	More than 15 years	29	15.5
	Total	187	100

Note: N=187

Descriptive analysis on respondent profile was done using SPSS. From the table above, majority respondents were female with (60%) and male with (40%), mostly from the age group of 26-45 years (57%), followed by 25 years and below (30%), and about (13%) were from age 45 years and above. For academic qualification, majority of respondents are from a background of Diploma & Bachelor degree holders (44%), followed by Professional holders (26%), Master degree holders (22%) and others (8%). In terms of occupation status, (48%) respondents are from accounting/audit firms while (52%) respondents are from government Inland Revenue Board (IRB) staffs. For respondents' years of experience, majority have 5 years and below (56%), about (29%) respondents have 6-15 years of experience, and (15%) with more than 15 years of experience.

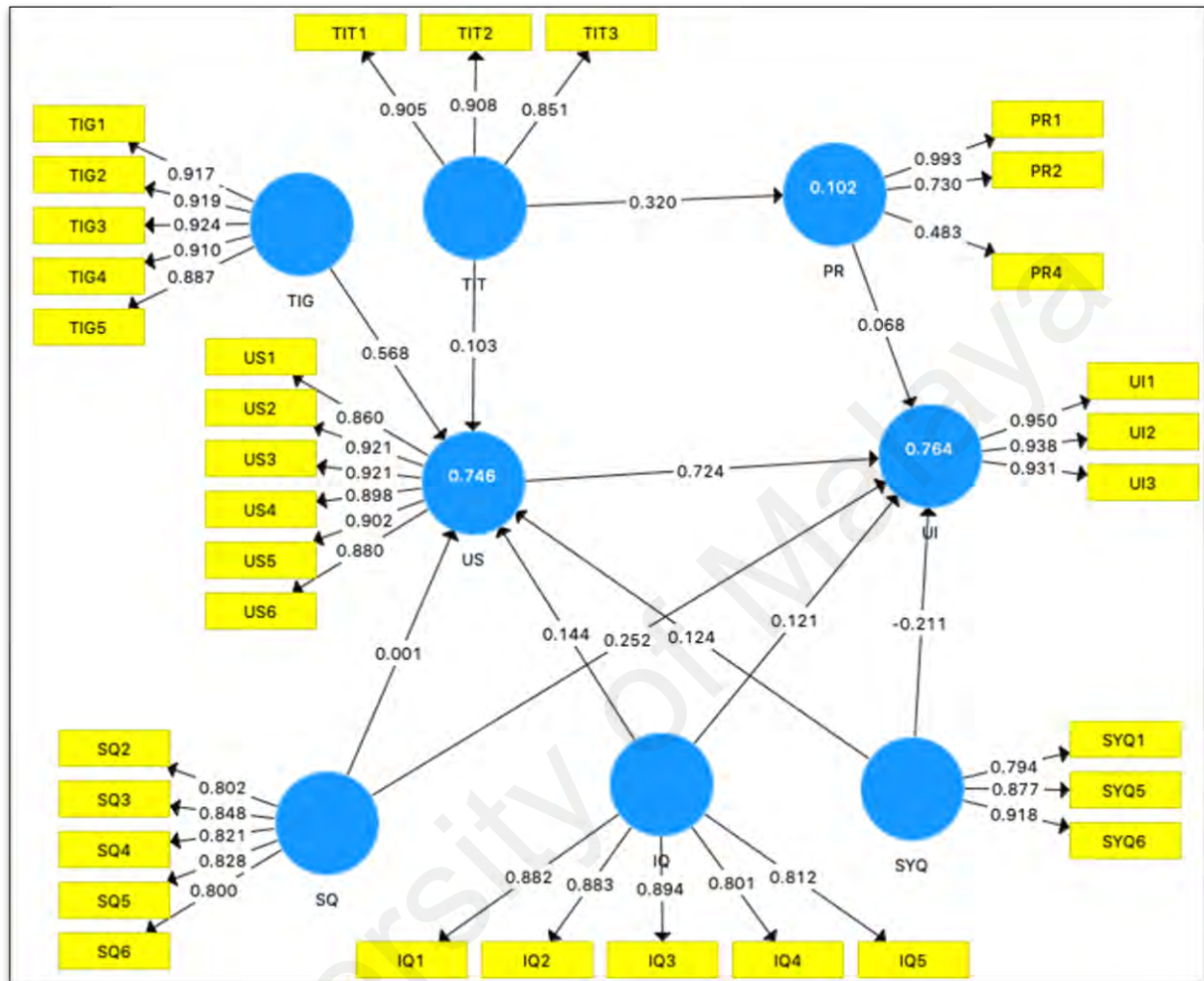
4.2 ANALYSES OF MEASURES

This research used partial least squares (PLS) with Smart PLS 3.0 software to test the hypotheses (Hair et al, 2014). This method was chosen because it has the potential to work with complex models with hierarchical structure and multiple constructs, relationships and indicators thereby achieving model parsimony (Hair et al, 2011; Ringle et al, 2012; Alsaad et al, 2017; Sarstedt et al, 2019). Besides that, PLS able to avoid small sample size problems with less strict assumptions of normality distributions (Alsaad, 2017). Moreover, the main reason PLS is used in this study is to reap the benefits of getting to measure the hierarchical components model in a single framework, also known as higher order constructs (Becker et al, 2019; Sarstedt et al, 2019).

Also, with the structural equation modelling (SEM) technique, PLS able to simultaneously test measurement and structural model (Hair et al, 2014). This study follows certain rules of thumb in analysing the PLS-SEM algorithm. Adopting the guideline from Anderson and Gerbing's (1988), fellow researchers suggested a two-step analytical approach in which the measurement model must be tested first, followed by a structural model. Then, the path weighting scheme was selected as the weighting method and a value of 300 was selected as the maximum number of iterations.

4.2.1 Measurement model

Figure 2. Measurement model for users



Notes; SQ = Service quality, IQ = Information quality, SYQ = System quality, TIG = Trust in Government, TIT = Trust in Technology, PR = Perceived Risk, US = User Satisfaction, UI = Usage Intention

At the initial stage, the measurement model is tested by performing validity and reliability test on each measure to indicate the relationship between the latent variables or constructs and the hypothesis in the research framework. By conducting this test, it able to provide sufficient and clear description between the indicators and latent variables. Therefore, Partial Least Squares (PLS) model is employed in order to identify those constructs above 0.7 are consider as high level of consistency reliability and acceptable. Meanwhile, a loading lower than 0.4 are

consider as unreliable and must be dropped (Hair et al., 2011). There are 10 variables that were deleted at the beginning stage which are SYQ 2, SYQ 3, SYQ 4, SQ 1, SQ 7, TIT 4, TIT 5, TIT 6, PR 3, and UI 4. Thus, figure 2 shows the results of measurement model from the PLS output.

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Table 3. Assessment Results of the Measurement Model

Construct	Loading	Composite Reliability (CR)	Average Variance Extracted (AVE)	Cronbach's Alpha
Information Quality (IQ)		0.931	0.731	0.907
IQ 1	0.882			
IQ 2	0.883			
IQ 3	0.894			
IQ 4	0.801			
IQ 5	0.812			
Perceived Risk (PR)		0.796	0.584	0.756
PR 1	0.993			
PR 2	0.730			
PR 4	0.483			
Service Quality (SQ)		0.911	0.673	0.879
SQ 2	0.802			
SQ 3	0.848			
SQ 4	0.821			
SQ 5	0.828			
SQ 6	0.800			
System Quality (SYQ)		0.898	0.747	0.830
SYQ 1	0.794			
SYQ 5	0.877			
SYQ 6	0.918			
Trust in Government (TIG)		0.961	0.831	0.949
TIG 1	0.917			
TIG 2	0.919			
TIG 3	0.924			
TIG 4	0.910			
TIG 5	0.887			
Trust in Technology (TIT)		0.918	0.789	0.866
TIT 1	0.905			
TIT 2	0.908			
TIT 3	0.851			
Usage Intention (UI)		0.958	0.883	0.934
UI 1	0.950			
UI 2	0.938			
UI 3	0.931			
User Satisfaction (US)		0.961	0.805	0.952
US 1	0.860			
US 2	0.921			
US 3	0.921			
US 4	0.898			
US 5	0.902			
US 6	0.880			

The measurement model that was adopted in this study consists of eight construct which are service quality, system quality, information quality, perceived risk, trust in government, trust in technology, user satisfaction and usage intention of respondents towards e-filing system. Loading values more than 0.7 are considered acceptable (Chin, 2010 & Hair et al., 2011). Those loading values lower than 0.4 are omitted. Besides that, composite reliability (CR) and average variance extracted (AVE) values which are above the threshold and also loading values between 0.4 – 0.7 should be considered for removal. Table 3 shows that most of the loading values are higher than 0.7.

Furthermore, CR coefficient is used for evaluating construct reliability. Construct reliability values should be greater than 0.7 (Chin, 2010 & Hair et al., 2011). Table 3 shows that all the CR values for both groups are more than 0.7. This shows that the measurement model possesses acceptable reliability.

Besides that, to evaluate convergent validity, the AVE values should be greater than 0.5 (Chin, 2010 & Hair et al., 2011). Based on Table 3, it shows that all the AVE values for both groups are greater than 0.5. Thus, the convergent validity is acceptable for this model.

Cronbach's alpha is the commonly used measure for internal consistency reliability. Cronbach's alpha value of 0.7 and above is considered to be reliable (Mousa et al., 2019). The value 0.7 and above indicates that the latent variables are homogenous and measuring the same construct. Moreover, according to Hinton et al (2004), Cronbach's alpha between 0.5 and 0.7 gave moderate reliability and acceptable.

Table 4. Discriminant Validity (Fornell - Larcker Criterion)

Construct	IQ	PR	SQ	SYQ	TIG	TIT	UI	US
IQ	0.855							
PR	0.142	0.764						
SQ	0.808	0.168	0.820					
SYQ	0.702	0.292	0.750	0.865				
TIG	0.725	0.171	0.768	0.744	0.911			
TIT	0.632	0.320	0.657	0.745	0.757	0.888		
UI	0.699	0.193	0.720	0.607	0.751	0.691	0.940	
US	0.709	0.176	0.715	0.725	0.844	0.717	0.848	0.897

Table 4 shows the results of discriminant validity using the Fornell-Larcker criterion. In discriminant validity, each latent variables (LV) is different from other constructs (Hair et al., 2014). In order to meet Fornell-Larcker criteria, the square root of AVE for each construct must be higher than all correlations with the other constructs. Thus, discriminant validity is acceptable when the square root of AVE is higher than its correlations with all the other constructs. This is further supported by the Heterotrait-Monotrait ratio (HTMT) test as laid out in Table 5.

Table 5. Heterotrait- Monotrait Ratio (HTMT)

Construct	IQ	PR	SQ	SYQ	TIG	TIT	UI	US
IQ								
PR	0.178							
SQ	0.903	0.142						
SYQ	0.802	0.225	0.868					
TIG	0.781	0.160	0.839	0.827				
TIT	0.712	0.246	0.749	0.873	0.832			
UI	0.759	0.165	0.785	0.680	0.796	0.767		
US	0.761	0.155	0.769	0.804	0.885	0.785	0.897	

Table 6. Descriptive Analysis

Construct	Mean	Standard Deviation
Information Quality (IQ)		
IQ 1	5.556	1.083
IQ 2	5.524	1.049
IQ 3	5.519	0.941
IQ 4	5.615	0.951
IQ 5	5.460	0.985
Perceived Risk (PR)		
PR 1	4.011	1.538
PR 2	4.503	1.574
PR 4	3.610	1.640
Service Quality (SQ)		
SQ 2	5.214	1.252
SQ 3	5.775	1.017
SQ 4	5.775	0.996
SQ 5	5.321	1.128
SQ 6	5.588	1.076
System Quality (SYQ)		
SYQ 1	5.439	1.068
SYQ 5	4.984	1.381
SYQ 6	5.390	1.228
Trust in Government (TIG)		
TIG 1	5.529	1.211
TIG 2	5.604	1.175
TIG 3	5.626	1.052
TIG 4	5.642	1.024
TIG 5	5.567	0.978
Trust in Technology (TIT)		
TIT 1	5.332	1.066
TIT 2	5.321	0.958
TIT 3	5.332	1.004
Usage Intention (UI)		
UI 1	5.390	1.147
UI 2	5.551	1.001
UI 3	5.422	1.154
User Satisfaction (US)		
US 1	5.460	1.123
US 2	5.471	1.137
US 3	5.519	1.114
US 4	5.492	1.138
US 5	5.428	1.126
US 6	5.444	1.078

As presented in Table 6, the user satisfaction (US), followed by trust in government (TIG), and service quality (SQ) had the highest mean values. Meanwhile, perceived risk (PR), system quality (SYQ) and trust in technology (TIT) had the lowest mean values. User satisfaction (US) had the highest standard deviation while trust in technology (TIT) had the lowest standard deviation.

4.2.2 Structural model

In this section the structural model is presented and also known as the inner model in PLS-SEM. It explains the nature of the relationship between latent construct and if they are significant. SmartPLS 3.0 was used in order to test the structural model and hypotheses. Bootstrapping is performed in order to test the hypotheses with 5,000 iterations. This was performed to examine the statistical significance of the weights of each sub-constructs and path coefficients. Furthermore, PLS does not produce overall goodness of fit indices, but by using the R^2 , it is the primary way that allows evaluation on the explanatory power of the model. The table 7 below shows the results of tested hypothesis.

Table 7. Results of Hypothesis Testing

Hypothesis	Relationships	Path coefficients	Results
Hypothesis 1	IQ -> UI	0.121	Not supported
Hypothesis 2	IQ -> US	0.144 *	Supported
Hypothesis 3	PR -> UI	0.068	Not supported
Hypothesis 4	SQ -> UI	0.252 **	Supported
Hypothesis 5	SQ -> US	0.001	Not supported
Hypothesis 6	SYQ_ -> UI	-0.211	Not supported
Hypothesis 7	SYQ_ -> US	0.124	Not supported
Hypothesis 8	TIG -> US	0.568 ***	Supported
Hypothesis 9	TIT -> PR	0.320 **	Supported
Hypothesis 10	TIT -> US	0.103	Not supported
Hypothesis 11	US -> UI	0.724 ***	Supported

(Notes; * significant at $p < 0.05$, ** significant at $p < 0.01$, *** significant at $p < 0.001$)

4.3 RESULTS OF HYPOTHESES TESTING

Table 7 shows the results of structural model. In order to test whether the hypothesis is significant or not significant, bootstrapping is performed. Information quality (IQ) ($\beta = 0.144$, $P < 0.05$) and trust in government (TIG) ($\beta = 0.568$, $P < 0.001$) was significantly related towards user satisfaction (US), thus hypothesis 2 and hypothesis 8 of this study is supported. Service quality (SQ) ($\beta = 0.252$, $P < 0.01$) and user satisfaction (US) ($\beta = 0.724$, $P < 0.001$) was found in this study to be significantly related to usage intention (UI), thus hypothesis 4 and hypothesis 11 is supported. Trust in technology (TIT) was found to be significantly related to perceived risk (PR) ($\beta = 0.320$, $P < 0.01$), thus supporting hypothesis 9.

However, service quality (SQ) ($\beta = 0.001$), system quality (SYQ) ($\beta = 0.124$) and trust in technology (TIT) ($\beta = 0.103$) was found to be insignificantly related to user satisfaction (US), thus rejecting hypothesis 5, hypothesis 7 and hypothesis 10. Besides that, information quality (IQ) ($\beta = 0.121$), perceived risk (PR) ($\beta = 0.068$) and system quality (SYQ) ($\beta = -0.211$) are not significantly related to usage intention (UI), hence hypothesis 1, hypothesis 3 and hypothesis 6 are also not supported.

4.4 SUMMARY

Based on the analysis done in Smart PLS software, the results generate reliable findings of the current research that highlights the influence placed by different variables tested. The hypotheses formed the centre of this research and aimed to contribute to the research questions. Statistical analysis of the analysed data supported hypothesis 2, 4, 8, 9 and 11 but hypothesis 1, 3, 5, 6, 7, and 10 failed to be supported.

CHAPTER 5: DISCUSSION AND CONCLUSION

5.0 INTRODUCTION

This chapter discusses on the results that was presented and analysed in chapter 4. It recapitulates the study and discusses further on the major findings. From the findings and discussion, a number of conclusions were drawn. Implication and limitation of the study will also be discussed and suggestions for future research will be highlighted.

5.1 RECAPITULATION OF THE STUDY

This study aims to investigate the factors that contribute towards the adoption of e-filing system by using the combination of IS success model theory and trust theory. In order to substantiate the presence of the research problem, six independent variables which are service quality, system quality, information quality, trust in government, trust in technology, and perceived risk were chosen and incorporated as determinants of user satisfaction and usage intention by using IS success model (ISSM) and trust theories. The findings of the study will eventually answer the following research objectives: -

1. to evaluate the impact of information quality, service quality, and system quality on user satisfaction and intention to use e-filing system.
2. to evaluate the impact of perceived risk on intention to use the e-filing system.
3. to evaluate the impact of trust on user satisfaction of the e-filing system.
4. to evaluate the impact of trust on perceived risk of the e-filing system.
5. to evaluate the relationship between user satisfaction and intention to use the e-filing system.

There were several hypotheses developed to test the relationship between the independent variables and the dependant variables. The first set of hypotheses was developed to identify

the relationship between information quality, service quality and system quality with user satisfaction and usage intention. The next set of hypothesis is developed to test the relationship between perceived risk and usage intention. Another set of hypotheses are generated to investigate the relationship of trust in government and trust in technology with user satisfaction. Next set of hypothesis is to investigate on the relationship between trust in technology and perceived risk. The final set of hypothesis is developed to test the relationship between user satisfaction and usage intention.

5.2 DISCUSSIONS OF MAJOR FINDINGS

The first research objective which is to identify the impact of information quality, service quality, and system quality on user satisfaction and usage intention to use e-filing system was tested through hypothesis 1, hypothesis 2, hypothesis 4, hypothesis 5, hypothesis 6 and hypothesis 7. According to this study, hypothesis 2 and hypothesis 4 are significant and supported. Meanwhile hypothesis 1, hypothesis 5, hypothesis 6, and hypothesis 7 are insignificant and not supported. So, the overall result for research objective 1 is partially supported by the users of e-filing system.

5.2.1 Information quality

Based on hypothesis 1, the relationship between information quality and usage intention was not supported. This is in line with the previous research conducted by Veeramootoo et al. (2018) revealed that there is negative relationship between these two constructs. In relation to e-filing system, the government agency implements e-filing system as a platform whereby it provides all necessary information which are needed by the user during filing of their income tax return. However, users are willing to interact with the e-filing system mainly for

transaction purposes and not for information purposes. Thus, information quality matters less for the users thus leading to an insignificant relationship with usage intention.

Hypothesis 2 was tested to identify the relationship between information quality and user satisfaction. This hypothesis is significant and supported. This finding is in line with previous study by Chen et al. (2015) revealed that there is significant positive relationship between these two constructs. Information which are updated through the system such as user's personal details and transaction records are found to be more accurate and relevant as the system is able to automatically fill up the necessary sections within the system. This indirectly reduces error in calculating tax which is desired by the users. Thus, efforts undertaken by IRB as part of their service in introducing this system to the user will definitely lead the users to adopt the system fully. On the hand, according to other studies by (Veeramootoo et al. 2018 and Zaidi et al. 2017), their findings did not support this relationship. This due to information quality does not have an effect towards users satisfaction on the e-filing system. According to the researcher also, when the user able to carry out online transaction with e-government service, they might be knowledgeable in using the e-filing system as a result, the information quality becomes less important compared to service quality and system quality.

5.2.2 Service quality

Hypothesis 4 proposed a positive relationship between service quality and usage intention in continuous adoption of the e-filing system and was supported by the findings of this study. This finding confirms with previous study by Hussein et al. (2011) who found that this relationship is significant. Even though this system has improved and received positive response from the users, the government agency should still be concerned about their current services provided through online. This current online service provided by the government, is

far better compared to traditional method. Hence, better service quality will indirectly affect the user to use the system in near future. Meanwhile, according to Veeramootoo et al. (2018) findings, this relationship is insignificant due to the fact that when it comes to online system, system quality has an important role compared to service quality as the users are more interested to submit their income tax returns quickly and efficiently.

The relationship between service quality and user satisfaction was tested in hypothesis 5. Whereby, this hypothesis is not supported by the users. The same result was found as not supported in prior study by (Chen et al., 2015). This is due to the user are not satisfied with the service quality provided. The users finds that the system is not useful enough to provide any necessary details or forms which lead to user feels less satisfied with the e-filing system. Nevertheless, Veeramootoo et al. (2018) findings validate that service quality as one of the most important cause of user satisfaction.

5.2.3 System quality

Hypothesis 6 tested on the relationship between system quality and usage intention. This hypothesis is insignificant and not supported in this study. However, previous study by Veeramootoo et al. (2018) supported that system quality positively influences usage intention. The research further discusses that, a better system quality will indirectly lead to higher usage of the system. This is because, the user concerns more on the technical capabilities of the system to function well in order to fulfil their tax obligation successfully.

Next, hypothesis 7 tested on the relationship between system quality and user satisfaction. This hypothesis is also insignificant. This is in line with previous research conducted by (Chen

et al., 2015). When the user faces technical difficulties such as heavy traffic during peak season, system crash or hang, and the speed of data processing gets slow, eventually leading to users that are not satisfied to continue using the system. Besides that, in prior study conducted by Veeramootoo et al. (2018) finds that this relationship is significant and has strong relationship between the two constructs. This due to the research finds that the system is user friendly, available for 24 hours, and also the system provides guidelines for filing the income tax return. Thus, when a system is efficient, it is able to increase the satisfaction level among the users of e-filing system.

5.2.4 Perceived risk

The second research objective which is to identify the impact of perceived risk on usage intention to use the e-filing system was tested by hypothesis 3 and the result is insignificant therefore, it is not supported. This is in line with research finding by Veeramootoo et al. (2018), Hussein et al. (2011), and Bhuasiri et al, (2016) which shows that perceived risk did not influence usage intention. Moreover, in this research, it is argued that perceived risk loses its importance when user shows positive attitudes and trust towards the service provider. Besides that, with the current technology development everyone is able to use the internet and are more knowledgeable about information technology. Therefore, the user may not be concerned about the potential risks that occurs during interaction with the system.

5.2.5 Trust in government

Subsequently, the third research objective which is to identify the impact of trust on user satisfaction of the e-filing system was tested by hypothesis 8 and hypothesis 10. The results is partially supported whereby hypothesis 8 is supported meanwhile hypothesis 10 is not

supported by the user of the system. Trust in government and trust in technology are related to user satisfaction to a certain extent. According to previous research by Hussein et al. (2011), trust is the most significant and have positive relationship towards user satisfaction. It encourages users to adopt the e-filing system. Moreover, trust is an important element in society. Hypothesis 8 tests on the relationship between trust in government and user satisfaction. The hypothesis is supported and the result is significant. This is because people tend to be more confident as they value trust especially towards government agency. Thus, in this study shows that users have high confidence towards the government agency in carrying out online transaction. They believe that government system can be trusted and is secure to handle transaction faithfully. In order to maintain this trustworthiness, the government must be transparent in handling all transactions and also when delivering online services. Therefore, the user perception will be positively influenced to adopt the e-government services and also users tempted to share their personal experience of using the system with the other users. This perception promotes integrity among the tax authorities and also improves the current system. At the end, the user would be satisfied in adopting the e-filing system.

5.2.6 Trust in technology

Hypothesis 10 tested on the relationship between trust in technology and user satisfaction. This hypothesis is not supported and is insignificant due to some users did not have the trust that e-filing system is safe and secured to carry out online transaction. Privacy and security are the main concern that arise and serves as the key factors that influences the usage of an online service (Hussein et al., 2011). In relation to this, the users are not convinced by the government potential to conduct a faithful online transaction. Thus, if both the technology

environment and government agency is trustworthy, then more users will be satisfied and in conjunction with that, it creates an intention to adopt the e-filing system fully.

Meanwhile, the fourth research objective which is to identify the impact of trust on perceived risk of the e-filing system was tested through hypothesis 9. The result is significant and therefore supported even though according to previous study by Schaupp et al. (2010) and Hussein et al. (2011), this hypothesis is not supported. Based on the findings of this research, when users have high levels of trust in technology, it negatively impacts the perceived risk towards usage of the e-filing system. This is due to the users' needs trust in the government agency providing the electronic system in order to utilise them fully. In addition, the perception that the government are capable in providing electronic services effectively, indirectly influences the user. In short, users will be more likely to use the internet service that has a good reputation when it is provided by a trusted government agency. This translates into the user perceives less risk when carrying out online tax filing. Thus, when it comes to conducting online payment, the level of perceived risk becomes lower and leads to higher level of usage intention to adopt and to continue using the system in the future.

5.2.7 User satisfaction

Hypothesis 11 is related to the fifth research objective which is to evaluate the relationship between the user satisfaction and usage intention to use the e-filing system. Based on this research result, the relationship between satisfaction and usage intention is positively supported in line with other studies such as by Veeramootoo et al. (2018) and Zaidi et al. (2017), and has also been validated by previous studies. Revalidation of the relationship between satisfaction and usage intention within the context of e-filing system in the current

study further confirms the robust association between these two variables. Thus, it shows that the users are willing to adopt the e-filing system to file their current income tax return and also in upcoming years when their level of satisfaction is high.

5.3 IMPLICATIONS

5.3.1 Implication to practice

At the end of this research, it able to provide contribution on its ability to identify the type of risk that the user perceives while using the system. Through this research also, the user should benefit from a better understanding of user perception in using the e-filing system to file corporate tax income return. Furthermore, based on the research findings the tax authorities who are those people that directly involve in corporate tax is able to use this result as a guideline to plan further strategies on how to improve the existing system, to reduce the perceived risk and to gain user's trust in government. Thus, it would indirectly increase the usage level of the system. With this improvement all taxpayer groups will be able to fully utilise the e-filing system. This situation will indirectly create a paperless era in the future.

5.3.2 Implication to theory

The main objective of this study is on the information system usage with an aim to ensure that any information system becomes more effective and efficient for the users which would lead to full utilization of the system. Research focusing on factors that promotes continuous usage intention is essential to guarantee long term success of an organisation. This study has identified and developed an understanding of the factors that is influencing user intention to continue using e-filing system for corporate tax filing. Results of this study would be useful

for the authority who are involve directly with corporate tax filing in order to improve their e-filing system to promote continuity of user adoption. Findings indicate that service quality is a significant determinant of intention to continue using the e-filing system. Thus, tax authority should consider investigating on further additional resources which are able to improve the technical infrastructure of the e-filing system in order to avoid system breakdowns.

Moreover, this study also suggest that user satisfaction has the strongest relationship with usage intention. User satisfaction can be enhanced by improving the service and information quality. The level of service can be enhanced by improving the quality of the taxation system by turning it into a standardised taxation service and an improved decision making processes. Besides that, a better service quality can be improved by designing proper website to ensure all information is accurate and updated. The design of website must have easy access to the users of e-filing system. Thus, the users do not need to switch to other alternative method.

Furthermore, the results also confirms that government websites must lean towards increasing and improving the user awareness to adopt the system and usage level. The government have to overcome the challenges of user adoption and acceptance, therefore they will be able to completely implement the e-filing system fully. This effort is found to be critical concern since not all IRB branches are connected through online. However, the result of this study also provides suggestions as to where the IRB could focus their efforts on improving the e-filing system. In this study, system quality has the weakest influence towards the perceptions of user satisfaction and usage intention in order to allow more users to adopt and use the system. A system is important for filing tax return especially for corporate tax since it is complex because it involves many transactions depending on different types of nature businesses.

5.4 LIMITATION AND RECOMMENDATION

There are some research limitations of this study. Firstly, the sampling is only limited within Malaysia. Therefore, in future research this study can be expanded on the surrounding geographical area. Besides that, the researcher could also perform comparison studies with other countries who adopt e-filing system to identify factors influencing adoption of e-filing system. Other than that, the researcher could improve the model by incorporating other relevant independent variables and dependent variables based on new findings from latest literature reviews at the time. Further research is needed to determine whether this study can be replicated in other e-government services.

5.5 CONCLUSION

Overall, this study is conducted to provide an introductory view and also to identify the factors that influences the adoption of the e-filing system. Previous research are mostly focused on individual taxpayers, therefore this current research should be able to provide certain insights for the e-filing provider to further encourage continuous adoption to the users of the system. At the beginning of the research, the benefits of using e-filing submission method were compared against the manual submission method. In short, e-filing is more convenient to use compared to manual submission method and therefore it serves as the key successful factors for adoption.

Then major problems faced by the system provider and the users were identified such as record keeping, incorrect details, system flexibility, resistance in using e-payment system, late submissions, filing of tax computation and technical issues. As such 5 research objectives were identified from literature reviews that has potentially significant influence over user adoption

of e-filing system. Factors such as impacts of information quality, system quality and service quality towards user satisfaction and usage intention were derived from Information System Success Model (ISSM) theory. Meanwhile factors such as impacts of trust in technology and trust in government towards user satisfaction and also trust in technology towards perceived risk were obtained from Trust theory.

In addition, the relationship between perceived risk towards usage intention and also user satisfaction towards usage intention were also researched. These relationships were tested through 11 hypothesis such as follow:- information quality positively affect usage intention, information quality positively influence user satisfaction; perceived risk negatively affects usage intention; service quality positively influence usage intention, service quality positively influence user satisfaction; system quality positively affect usage intention, system quality positively affects user satisfaction; trust in government positively influence user satisfaction; trust in technology negatively influence perceived risk while trust in technology positively influence user satisfaction; and finally, user satisfaction positively influence usage intention. Based on this study, the independent variables are service quality, information quality, system quality, trust in government, trust in technology and perceived risk while dependent variables are user satisfaction and usage intention.

The significance of these hypotheses were measured by using two types of statistical analysis software which are Statistical Package for the Social Sciences (SPSS) and Smart PLS. Data for the analysis is derived from questionnaires taking into account profiles such as gender, age, academic qualifications, years of experience and occupations. Respondents in terms of occupation status were almost equally from accounting/audit firms and from the government

Inland Revenue Board (IRB) staffs selected by using snowball sampling technique. By this technique it able to identify those users who deals with corporate tax filing only. As result there were only 5 hypothesis that were found to be significant in this research. Therefore, it can be summarised into the aspects of how information quality affects user satisfaction, service quality affects usage intention, trust in government affects user satisfaction, trust in technology affects perceived risk as such if the technology is provided by the government it will definitely influence user satisfaction towards usage intention to use the e-filing system.

In summary, as expected trust is an essential factor as this study also confirms from prior literatures regarding on the importance towards the views of adoption and to continued usage of the system. Trust towards government and technology should be well initiated for users to trust and satisfied with the e-government service. Moreover, on the designing and improving the e-filing system, issues regarding the IS success model factors must be rectified since all the information that is provided by the users should be accurate and kept secured. The e-filing system must be well maintained to ensure a smooth process for the users so that it will be able to maintain users satisfaction and good perception. Therefore, the success of e-government service is measured by the likelihood of continuous usage intention among users.

Prompt actions can be taken to increase the adoption of e-filing system for corporate tax filing among users in Malaysia by studying the user satisfaction and usage intention to use the e-filing system. Moreover, with the findings also an empirical justification is provided for the government to develop strategies accordingly in order to encourage the adoption of this system. Thus, continued research is required in order to improve this study and tackle the weakness of this study.

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