Scientific Research

E-Filing Behaviour among Academics in Perak State in Malaysia

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Abstract

Perak State government in Malaysia has been promoting an Internet tax filing called electronic filing as part of its e-government initiative. Starting in year 2006, Malaysia Inland Revenue Board (IRBM) has launched the e-filing method for individual taxpayers and from that point of time, Malaysia's citizens are provided with the option to choose their tax filing method either in the way of manual tax-filing method or e-filing method. This study focuses on the Perak State academics' intention and behavior to adopt e-filing tax system. The target population for this study is academic staff in Perak State in Malaysia. 116 usable questionnaires were collected from three public institutions and two private institutions of higher learning in Perak State in Malaysia and the data analyzed through the SPSS. The findings show that perceived use of use, perceived usefulness, perceived security, and perceived credibility do influence the Perak State academic's e-filing adoption intention. However, perceived service and information quality has not influenced their e-filing adoption intention. This study provides several important implications for building and promoting effective e-filing system by the IRBM.

Keywords

1. Introduction

1.1. Research Background

Multimedia Super Corridor Malaysia (MSC Malaysia) has been promoted by the Perak State Government for the initiative to leapfrog the nation into a knowledge-based economy level [1]. Among seven flagship applica-

tions, Perak State government has been promoting an Internet tax filing called electronic filing as part of its e-government initiative [2]. Starting in year 2006, Malaysia Inland Revenue Board (IRBM) has launched the e-filing method for individual taxpayers and from that point of time, Malaysia's citizens are provided with the option to choose their tax filing method either in the way of manual tax-filing method or e-filing method [2] [3]. E-filing tax system is an application on filing information of tax payment and tax return forms (ITRF) electronically by obtaining a valid digital certificate from the Inland Revenue Board Malaysia (IRBM). This valid digital certificate is to help taxpayers to complete their tax filing online. This shows an obvious contrast between the traditional manual tax filing method and e-filing tax method where the transaction process can be done in a paperless environment and rather without physically paying a visit to the tax department.

1.2. Problem Statement

Despite several benefits and advantages provided to taxpayers in terms of information searching, speedy filing, minimizing processing errors, fast and direct deposit refunds, eliminating delays or uncertainties of tax filing and return by postal mail [4]-[6], statistics from IRBM indicates that taxpayers who adopt e-filing tax system represent only 67 percent of total taxpayer's population in year 2011. There is a slight increase of 2 percent compared to the year 2010 where the e-filing users represent 65 percent of total academics' population. This increase is not showing a significant value, but this increase shows that the awareness and responds are shown by the taxpayers. According to WASEDA e-Government development ranking survey from Japan in year 2012, Malaysia remained in the 23rd position in the rankings among the 55 countries as in the years 2010 and 2011, though many efforts have been made by the government to promote e-government services. Perak State tax authorities seem to face some major challenges towards the implementation of the e-filing tax system, as the success and acceptance of e-government services depends on citizens' willingness to utilize the government service provided [7]. This study focuses on the Perak State academics' intention to adopt e-filing tax system.

1.3. Research Objectives

1) To examine the relationship between perceived ease of use (PEOU) and Perak State academics' e-filing adoption intention.
2) To examine the relationship between perceived usefulness (PU) and Perak State academics' e-filing adoption intention.
3) To examine the relationship between perceived security and Perak State academics' e-filing adoption intention.
4) To examine the relationship between perceived credibility and Perak State academics' e-filing adoption intention.
5) To examine the relationship between perceived service and information quality and Perak State academics' e-filing adoption intention.
6) To examine the relationship between Perak State academics' e-filing adoption intention and e-filing behavior.

1.4. Research Questions

1) What is the relationship between perceived ease of use (PEOU) and Perak State academics' e-filing adoption intention?
2) What is the relationship between perceived usefulness (PU) and Perak State academics' e-filing adoption intention?
3) What is the relationship between perceived security and Perak State academics' e-filing adoption intention?
4) What is the relationship between perceived credibility and Perak State academics' e-filing adoption intention?
5) What is the relationship between perceived service and information quality and Perak State academics' e-filing adoption intention?
6) What is the relationship between Perak State academics' e-filing adoption intention and e-filing behaviour?

2. Theoretical Foundation

2.1. Technology Acceptance Model (TAM)

TAM is an adaption of Theory of Reasoned Action (TRA) proposed by Ajzen in 1980. TAM was developed by

Fred Davis in 1986. This model suggests that perceived usefulness (PU) and perceived ease of use (PEOU) determine an individual's intention to use a new technology or system. PU is defined as the degree that a person believes to an extent that adoption of a particular system will enhance their job performance [8]. PEOU refers to degree of easiness that an individual learns to operate the new technology or information system. In addition, TAM is being used and accepted in most of the past studies to explain the relationship between the usage perception and information technology.

TAM is being verified as a useful theoretical model to understand and explain the user's behaviour to implement an information system (IS). Besides, many empirical researches have been conducted in order to test the TAM. The results have proved the quality of TAM and yielded statistically reliable results [9]. In addition, citizen's intention for using the e-Government system has been strongly influenced by TAM [10].

TAM is being applied in most researches of information technology. TAM has been used to explore taxpayer's acceptance towards the Internet tax-filing system [11]. Besides, TAM is combined with social influences and flow experience to forcast the on-line games towards users' acceptance [12]. In addition, combination of TAM and TPB was applied to investigate the customer's intention in using online banking [13]. Follow up studies discussed the explanation and prediction of the users' acceptance towards corporate information technology in the context of TAM [10]. TAM is incorporated in most of researches to understand or explore factors towards acceptance of various types of information technology.

2.2. Theory of Planned Behaviour (TPB)

TPB is a theory about the link between attitudes and behaviour. It was proposed by Ajzen in 1991 [14]. The TPB is an extension of Theory of Reasoned Action (TRA) made necessary by the original model's limitations in dealing with behaviours over which people have incomplete volitional control [14]. The theory states that the attitude, subjective norm and perceived behavioural control, together shape an individual's behavioural intentions. Attitude refers to positive and negative evaluation for self performance of a particular behaviour. Subjective norm refers to the perception about a particular behaviour of a person influenced by the judgement from significant surrounding person/s. Perceived behavioural control refers to an individual's perceived easy or difficult to perform particular behaviour [15]. Intentions are major determinants of actual performance in the TPB and their role in predicting actual performance has been empirically validated [16].

This research intends to adopt both TAM and TPB theories as its theoretical foundation because of the application of IT, intention, and behaviour in the Perak State academics' e-filing.

2.3. E-Filing Adoption Intention and Behaviour

E-filing implementation was introduced by the government agency called Lembaga Hasil Dalam Negeri (LHDN) and it allows taxpayers to submit their income tax details online and is considered as an alternative to the usual manual paper submission [17]. Thus, the implementation of this service can help the government to achieve their objectives by becoming more effective in operational and processing tasks and can provide greater convenience for taxpayers.

The words "intention" comes from Latin word "*intendere*" meaning "to stretch toward or to aim at" [18]. Thus, intention can be better to be described as a course of action that one proposes to follow. Therefore, in this study, intention is the process by which academics are able to follow all the action or process to produce their meaningful experience of the e-filing tool in filing their tax returns.

People's acceptance of e-filing is highly related to their behaviour on the one hand, ease and usefulness of e-filing system as well as security, credibility and quality support on the other. In 2010, mail surveys were distributed to personal taxpayers by the Inland Revenue Board of Malaysia and the result was utilised to determine the factors significantly affecting people's actual usage behaviour of the e-filing system. The results suggest that few factors are significant in explaining the actual usage behaviour of the e-filing system among the personal taxpayers. Thus, the following hypothesis is proposed:

H1: There is a relationship between Perak State academics' e-filing adoption intention and e-filing behaviour.

2.4. Perceived Ease of Use

An increase and improvement of e-filing system offers the essential base for user's perceptions of ease of use.

E-filing system offers many benefits to tax payers but all depend on the willingness to accept and use the available electronic services. Thus, website for Inland Revenue Board (IRB) is an important mechanism in the assessment of the ease of use for the user to file tax forms online. In the last couple of years, the developments on the web site have been improved and appreciated by users. Perceived ease of use is an individual's assessment of the extent to which interaction with a specific information system or technology is free of mental effort [8]. The perceived ease of use for a system is defined as the degree to which an individual believes that using a particular technology will be free of effort [19].

The results of many past researchers have provided evidence of the significant effect of perceived of usefulness and perceived ease of use on behavioural intention [20]-[27]. Perceived ease of use also found to have a significant impact on attitude, thus affects behaviour intentions [11]. Based on the discussion above, the hypothesis will be tested as below:

H2: There is a relationship between perceived ease of use (PEU) and Perak State academics' e-filing adoption intention.

2.5. Perceived Usefulness

TAM posits that perceived usefulness (PU) and perceived ease of use (PEU) are significant factors affecting acceptance of an information system and influence behavioural intention and attitude towards actual usage by the computer users. Perceived usefulness refers to the extent to which a person believes that using a particular system will enhance his or her performance [8]. According to Mathwick *et al*. [28], perceived usefulness is the extent to which a person deems a particular system to boost his or her job performance. The perceived usefulness will reflect the belief that using the technology will enhance performance [17]. The importance of perceived usefulness has been widely recognized in various fields. Past studies showed that perceived usefulness has a direct influence on behavioural intention to adapt online shopping, web-based training, electronic banking, e-commerce, and e-government services like e-filing [29]-[32].

Many studies have found that tax payers' perception towards e-filing system is influenced by perceived usefulness. Another example is Ambali [17] who examined the user's perceptual retention on the new electronic income-tax-filing system in Malaysia and implied that PU is influential and potential contributing factor to users' retention.Thus, the following hypothesis is proposed:

H3: There is a relationship between perceived usefulness (PU) and Perak State academics' e-filing adoption intention.

2.6. Perceived Security

Internet has provided greater convenience for tax payers to file taxes and make use of the online services. However, some believe (taxpayers) that they are able to file their income taxes manually rather than using the internet medium as advantage. The major issue here is whether the security of the system and information can give perception of confidence among tax payers or not. According to Belanger *et al*. [33], the biggest challenges presented by this issue related to privacy and security. Ambali [17] also highlighted security is a major factor but people are not often worry about security in physical way. But, when it is comes to e-filing, people are concerned more about their security information required in the system. Therefore, it can be concluded that people may perceive that the facilities in electronic tools are not adequately secured.

According to Valacich and Schneider [34], system security is a precaution to keep the system from unauthorized access and use while perceived information security is defined as the subjective probability with which consumers believe that their personal information will not be viewed, stored or manipulated during transit or storage by inappropriate parties, in a manner consistent with their confident expectations [35]. Iqbal and Bagga [27] also highlighted that there is personal sensitivity on individual data when a taxpayer files the information. Hence, effective measures must be taken to protect sensitive personal information such as income and medical history. Previous study also found that there was a strong relationship between the effectiveness of e-government security in term of availability, integrity, confidentiality and accountability [36] [37].

In Malaysia, action also was taken from Inland Revenue Board to educate tax payers.

"*While the Internet has provided greater convenience for tax payers to file taxes and make payments through our online services*, *every tax payer is responsible for their online safety by ensuring that they practice safe online habits when using these services.*" *Dato' Dr. MohdShukor bin Haji Mahfar*, *CEO of IRB Malaysia*. In addi-

tion, he also urged tax payers to be careful and stay safe when filing taxes and making payments online. Inland Revenue Board (Malaysia) is also cooperating with Symantec which worked together to educate tax payers to follow a set of best practices to ensure that tax payers have positive e-filing and payment experiences.

Moreover, whether the tax software are verified based on the policy is also still not clear and people keep asking whether it is safe to e-file their income taxes or not [38]. However, the chances are slim-to-none if all tax software should guarantee that it uses the most secured technology. It is supported by Udo [39] who explained that every site which is sensitive to privacy concern should have privacy policies clearly displayed. Thus, the following hypothesis is proposed:

H4: There is a relationship between perceived security (PS) and Perak State academics' e-filing adoption intention.

2.7. Perceived Credibility

Perceived credibility is the quality of the e-filing system being trusted by the users in terms of ability to protect the user's personal information and security [39]. Perceived credibility in tax e-filing will affect the intention to adopt the e-filing applications and increase behavioural uncertainty since it involves the exchange of personal and private information. Based on Ambali [17], majority of the taxpayer population reluctant to use this alternative medium of filing their tax returns might be because the security violations in internet-based systems have received bad reputation in the popular sections of press and mind of the people all over the world.

According to Wang [26], perceived credibility refers to two dimensions which are security and privacy affecting users' intention to adopt the online transaction systems. Lai *et al.* [40] found that some users would only use the e-filing system if the Inland Revenue Board (IRB) could assure that the e-filing system is safe and secured audits usability and reliability are fully tested and well documented. If users are able to feel that the e-filing system is secured and trustworthy, the users will have no doubt to put trust and use it. Previous studies found that perceived usefulness have significant influence on behavioural intention in the context of electronic tax filing (e.g., Ilias, Razak, & Yasoa [41], Sharma & Yadav [2] and Wang [26]. Thus, the following hypothesis is proposed:

H5: There is a relationship between perceived credibility (PC) and Perak State academics' e-filing adoption intention.

2.8. Perceived Service and Information Quality

Ilhaamie [42] highlighted that service quality is an important dimension of organizational performance in the public sector as the main output of public organizations. Nowadays, the process of transformation from government to e-Government services makes a new generation in public services [43]. E-filing for income taxes is one of e-Government services that can replace the government's traditional services for better quantity, quality, and satisfactory results. In addition, the quality of the services is another incentive from government to promote the use of e-Government services. It is highlighted that the individual can spend less time and do not have to wait in a queue in order to receive the services.

Hence, the major issue of service quality in this matter expected is quite low. Therefore, Abdullah [44] explained that it is a matter concerned to the public since they are the taxpayers and they expect good services are provided to them. Aliah and Tarmize [45] by adopting SERVQUAL in their study had measured service quality provided by an income tax payment department in Malaysia. They concluded that there were existence of significant gaps between the expectations of the income tax payers and the services they received such as reliability, responsiveness and empathy.

From the perspective of tax payers' behaviour relating to service quality, the problems occurred in term of the system or website practices. Not all tax payers are computer literate and it is believed that some of them are doubt in using this kind of services. However, the comfort zone of tolerance exists as the income tax payers are willing to compromise with this matter [42]. The most important factor in information quality is the accuracy of information provided by user when they enter the data in the e-filling system. Another aspect would be either information acquired by the system is relevant for users. Based on Chang *et al.* [11], information quality has been defined by the degree to which users are provided with quality information regarding their needs. Information quality also represents the users' perception of the output quality generated by an information system and includes such issues as the relevance, timeliness and accuracy [46].

If a system could provide users with relevant information on time, accurate, understandable and help in a better decision making, the user will choose to use it. This is because, users could perceive the system as greater job relevance, high output quality and greater result demonstrability [47]. Thus, the following hypothesis is proposed:

H6: There is a relationship between perceived service and information quality (PSIQ) and Perak State academics' e-filing adoption intention.

The above discussion leads to the theoretical framework of this research and shown in **Figure 1**.

3. Methodology

The target population for this study is academic staff from three public institutions and two private institutions of higher learning in Perak Sate in Malaysia. This study took approximately 3 months whereby 200 questionnaires were distributed to the academic staff. The overall response rate was 58% which means 116 questionnaires were returned and completed by the respondents. The variables for this study were measured using a list of 35 items adapted from past study, Sharma & Yadav [2]. All the 7 variables were measured using a 5-point Likert-type scale (1 = strongly disagree to 5 = strongly agree). SPSS 17 was used to analyse the data.

The multivariate statistical technique, Multiple Regression Analysis has been used to examine the linear correlations between the five independent variables and mediating variable. Simple Regression Analysis has been used to examine the linear correlation between the mediating and dependent variables.

4. Results, Analysis and Findings

Several analysis including descriptive statistics, correlation analysis, multiple linear regression analysis and simple linear regression analysis are performed and discussed in the following paragraphs.

4.1. Respondents' Profile

Table 1 shows the profile of the respondents.

It could be seen from **Table 1** that 92.2 percent of the respondents are online users while manual users consist of 7.8 percent. The sample also indicates that female respondents represented a higher percentage of the total samples (67.2%) when compared to the male respondents (32.8%). Most of the respondents fall into the age group between 31 to 40 years old (44%) followed by those between 41 to 50 years old (28.4%). Single respondents indicate 34.5 percent while married respondents consist of 65.6 percent. Majority of the respondents possess Masters (57.8%) while 25.9 percent had completed their PHD. Most of the respondents fall into income group within RM 3501 to RM 4500 (34.5%) followed by the income level between RM 5501 or above (32.8%). Majority of the respondents used broadband to connect to the internet (85.30%) while 11.20 percent did not have the internet connection at home. The respondents used broadband to connect to the internet at the office (48.40%) followed by 41.40 percent who used LAN. Respondents used the internet for 8 hours or above (50%) while 26.7 percent of the respondents used internet between 5 to 7 hours.
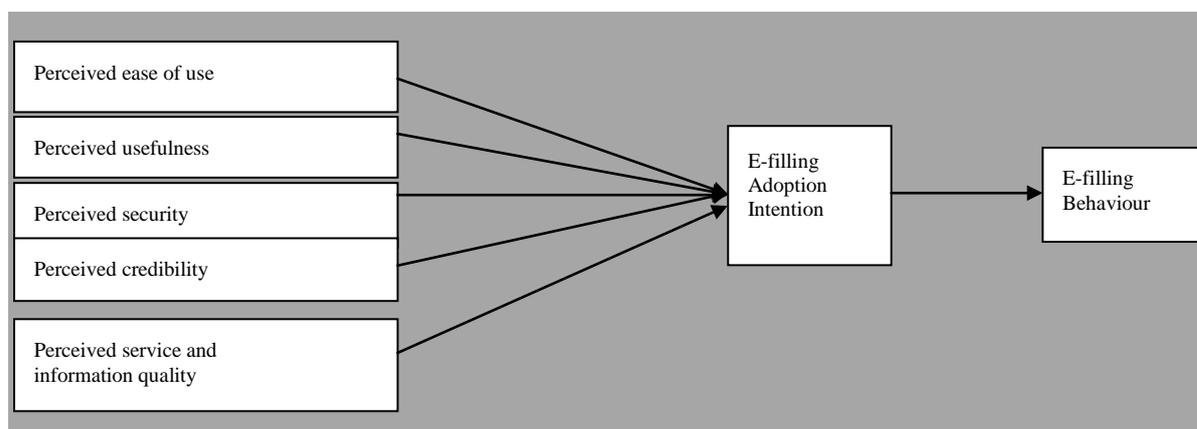
Figure 1. Research framework.

Table 1. Respondents' profile (N = 116).

Items	Frequency	Percentage
Tax filing method		
Manual	9	7.8
Online	107	92.2
Gender		
Male	38	32.8
Female	78	67.2
Age		
21 - 30 years old	20	17.2
31 - 40 years old	51	44.0
41 - 50 years old	33	28.4
51 years and above	12	10.4
Marital status		
Single	40	34.5
Married	76	65.5
Education		
Bachelor degree	15	12.9
Master degree	67	57.8
PhD	30	25.9
Specialist	4	3.4
Monthly income level		
RM 2500 - 3500	12	10.3
RM 3501 - 4500	40	34.5
RM 4501 - 5500	26	22.4
RM 5501 and above	38	32.8
Computer and network facilities at home		
No internet	13	11.2
Dial-up	4	3.4
Broadband	99	85.3
Computer and network facilities at work		
No internet	5	4.3
Dial-up	7	6.0
LAN	48	41.4
Broadband	56	48.3
Hours of computer use in a week		
1 hour or less	1	0.9
2 - 4 hours	26	22.4
5 - 7 hours	31	26.7
8 hours and above	58	50.0

4.2. Measurement of Central Tendencies

Table 2 shows the central tendencies measurement and Cronbach Alpha.

The highest mean is for the question "feel secure if the officer received and accepted e-filing return" (Mean = 4.13, SD = 0.704) followed by "e-filing speed up the tax filing process" (Mean = 4.07, SD = 0.754). The mean for all variables are above 3.41 while standard deviations are all less than 3.0 (<3.0). The results are all good and appropriate for the study.

According to the **Table 2**, the Cronbach's Alpha value for PEU is 0.765, PU is 0.881, PS is 0.788, PC is 0.834, PSIQ is 0.856, EAI is 0.861, and EB is 0.791. Thus, the reliability coefficients of all IVs and DVs are above the accepted criteria of 0.70.

4.3. Normality

The normality test showed that all items of the variables resulted in less than 3 skewness and less than 10 kurtosis which met the most stringent demand of multivariate normality of the variance [38].

4.4. Correlation

All correlations are significant. **Table 3** shows that the highest correlation is between e-filing behaviour (EB) and e-filing adoption intention (EAI) (p = 0.860).

4.5. Inferential Analysis

Multiple Linear Regression

The R Square shows the extent or percentage the independent variables can explain the variation in the mediating variable. R square shown in **Table 4** at 0.728 indicates that 72.80% of the changes in mediating variable (e-filing adoption intention) can be explained by the independent variables (perceived ease of use, perceived usefulness, perceived security, perceived credibility and perceives service and information quality). However, the remaining 27.20% (100% - 72.80%) of variation could be explained by other variables which are not considered in this study.

As shown in the **Table 5**, F-value statistics is derived at 59.02 which are fairly large. Based on the analysis, the significant p-value is arrived as 0.000, which is less than 0.05 (p-value < 0.05). Both F-value statistics and p value provide a good model fit for this study.

While **Table 6** shows that perceived service and information quality alone does not influence the E filing adoption intention by not meeting the requirement of p-value < 0.05. Other independent variables perceived ease of use, perceived usefulness, perceived security and perceived credibility influence the E-filing intention with p-value below 0.05.

Table 7 shows the result of simple linear regression. The R square shows the extent or percentage the mediating variable can explain the variations in the dependent variable. R square at 0.739 indicates that 73.90% of the changes in dependent variable can be explained by the mediating variable E-filing adoption intention. However, the remaining 26.10% of variation could be explained by other variables which are not considered in this study.

Table 2. Central tendencies measurement of constructs.

Variable	Mean	Standard deviation	Cronbach's alpha
Perceived ease of use	3.8787	0.7234	0.765
Perceived usefulness	4.0221	0.7575	0.881
Perceived security	4.0591	0.6921	0.788
Perceived credibility	3.4123	0.7336	0.834
Perceived service and information quality	3.9615	0.6895	0.856
E-filing adoption intention	3.6725	0.7132	0.861
E-filing behaviour	3.8562	0.6767	0.791

Table 3. Correlation analysis.

		EB	EAI	PEU	PU	PS	PC	PSQ
EB	Pearson correlation	1.000	0.860[**]	0.686[**]	0.671[**]	0.742[**]	0.731[**]	0.809[**]
	Sig. (2-tailed)		0.000	0.000	0.000	0.000	0.000	0.000
	N		116	116	116	116	116	116
EAI	Pearson correlation		1.000	0.670[**]	0.626[**]	0.766[**]	0.707[**]	0.829[**]
	Sig. (2-tailed)			0.000	0.000	0.000	0.000	0.000
	N			116	116	116	116	116
PEU	Pearson correlation			1.000	0.854[**]	0.624[**]	0.634[**]	0.695[**]
	Sig. (2-tailed)				0.000	0.000	0.000	0.000
	N				116	116	116	116
PU	Pearson correlation				1.000	0.618[**]	0.611[**]	0.682[**]
	Sig. (2-tailed)					0.000	0.000	0.000
	N					116	116	116
PS	Pearson correlation					1.000	0.738[**]	0.815[**]
	Sig. (2-tailed)						0.000	0.000
	N						116	116
PC	Pearson correlation						1.000	0.750[**]
	Sig. (2-tailed)							0.000
	N							116
PSQ	Pearson correlation							1.000
	Sig. (2-tailed)							
	N							

[**]Correlation is significant at the 0.01 level (2-tailed).

Table 4. Multiple liner regression.

Model	R	R square	Adjusted R square	Std. error of the estimate	Change statistics				
					R square change	F change	df1	df2	Sig. F change
1	0.853[a]	0.728	0.716	0.31091	0.728	59.020	5	110	0.000

[a]Predictors: (Constant), PSQ, PU, PC, PS, PEU.

Table 5. Multiple liner regression-ANOVA.

	Model	Sum of squares	df	Mean square	F	Sig.
1	Regression	28.526	5	5.705	59.020	0.000[a]
	Residual	10.633	110	0.097		
	Total	39.159	115			

[a]Predictors: (Constant), PSQ, PU, PC, PS, PEU; [b]Dependent Variable: EAI.

Table 6. Multi liner regression-coefficients.

Model		Unstandardized coefficients		Standardized coefficients	t	Sig.
		B	Std. error	Beta		
1	(Constant)	0.411	0.119		3.441	0.001
	PEU	0.331	0.045	0.320	7.275	0.000
	PU	0.325	0.045	0.346	7.163	0.000
	PS	0.105	0.039	0.119	2.690	0.007
	PC	0.173	0.042	0.166	4.097	0.000
	PSQ	0.220	0.103	0.299	5.052	0.070

[a]Dependent Variable: EAI.

Table 7. Simple liner regression.

Model	R	R square	Adjusted R square	Std. error of the estimate	Change statistics				
					R square change	F change	df1	df2	Sig. F change
1	0.860[a]	0.739	0.737	0.30020	0.739	322.771	1	114	0.000

[a]Predictors: (Constant), EAI.

As shown in the **Table 8**, F-value statistics is derived at 322.771 which are very high. Based on the analysis, the significant p-value is 0.000, which is less than 0.05 (p-value < 0.05). Both F-value statistics and p value provide a good model fit between the mediating and dependent variables in this study.

Table 9 shows that the e-filing adoption intention influences the e-filing behaviour by meeting the requirement of p-value < 0.05. In addition, the result also shows that e-filing adoption intention has positive relationship with the e-filing behaviour.

The summary of the hypotheses and results of the analysis are given in **Table 10**.

5. Discussion on Findings

From the findings it could be seen that perceived ease of use and perceived usefulness influence the e-filing adoption intention more than any other factors. It could be also seen that perceived security and perceived credibility also influence the e-filing adoption intention. These results are on line with the past studies as reviewed under the literature review part. However, this study concludes that perceived service and information quality do not influence the e-filing behaviour of the academics in Perak State. Perhaps the academics in Perak State have fully satisfied with the present service and information quality of the IRBM and they never considered these as factors to influence their e-filing adoption intention.

6. Theoretical and Managerial Implications

This study indicates some picture of the taxpayer's behaviour. This is important to understand the new system being implemented by LHDN and being accepted by the taxpayers. From the study, the TAM model and TPB theory have been validated through the results with a good model fit and by accepting five hypotheses over 6 hypotheses. In terms of managerial perspective it is important to LHDN to understand the timing of implementation and to understand the need of back up to cater the misunderstood perception of certain taxpayers. The main aim of LHDN is to collect as much as possible in a user friendly manner from the tax payers. It is not an easy task to have a healthy connection between LHDN and the taxpayers, but from this study it could help the management to understand the characters of the different level taxpayer's perceived reaction and behaviour. From this research it can be concluded that the management should upgrade their system in order to minimize the concern by the tax payers in adopting this e-filling.

Table 8. Simple liner regression-ANOVA.

	Model	Sum of squares	df	Mean square	F	Sig.
	Regression	29.087	1	29.087	322.771	0.000[a]
1	Residual	10.273	114	0.090		
	Total	39.361	115			

[a]Predictors: (Constant), EAI; [b]Dependent variable: EB.

Table 9. Simple liner regression-coefficients.

	Model	Unstandardized coefficients		Standardized coefficients	t	Sig.
		B	Std. error	Beta		
1	(Constant)	0.554	0.189		2.926	0.004
	EAI	0.862	0.048	0.860	17.966	0.000

[a]Dependent variable: EB.

Table 10. Summary of hypothesis.

Hypotheses	Statistics	Beta	p-value	Result
H1: There is a relationship between Perak State academics' e-filing adoption intention and behaviour.	SLR	0.862	0.000	Accepted
H2: There is a relationship between perceived ease of use (PEU) and Perak State academics' e-filing adoption intention.	MLR	0.331	0.000	Accepted
H3: There is a relationship between perceived usefulness (PU) and Perak State academics' e-filing adoption intention.	MLR	0.325	0.000	Accepted
H4: There is a relationship between perceived security (PS) and Perak State academics' e-filing adoption intention.	MLR	0.105	0.007	Accepted
H5: There is a relationship between perceived credibility (PC) and Perak State academics' e-filing adoption intention.	MLR	0.173	0.000	Accepted
H6: There is a relationship between perceived service and information quality (PSIQ) and Perak State academics' e-filing adoption intention.	MLR	0.220	0.070	Not accepted

7. Conclusion

This research served the purpose of investigating the factors affecting the Perak State academics' e-filing behaviour in using the e-filing system compared with the traditional manual tax filing system. Five constructs including perceived ease of use, perceived usefulness, perceived security, perceived credibility and perceived service and information quality were proposed to test the relationship with the e-filing adoption intention. According to the results generated by the Statistical Package for Social Science (SPSS), the researchers conclude that perceived ease of use, perceived usefulness, perceived security and perceived credibility are considered as the main determinants of the Perak State academics' behavioral intention towards the adoption of e-filing and perceived service and information quality is not influencing the e-filing adoption intention.

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Appendix. Filing Adoption Behaviour among Taxpayers in Perak State

Survey Questionnaire

Dear respondent:

   1) We are doing research on the E-Filing of income tax returns.
   2) There are **THREE** (3) sections in this questionnaire. Please answer ALL questions in ALL sections.
   3) Completion of this form will take you approximately 10 to 15 minutes.
   4) The contents of this questionnaire will be kept **strictly confidential**.
   Thank you for your participation.

Section A : Demographic Profile
Please place a tick "√" for each of the following:

1. Your Tax Filing method for the year 2011:
   ☐ Manual
   ☐ Through online

2. Gender:
   ☐ Male
   ☐ Female

3. Age:
   ☐ 21 - 30
   ☐ 31 - 40
   ☐ 41 - 50
   ☐ 51 or above

4. Marital status:
   ☐ Single
   ☐ Married

5. Education:
   ☐ Bachelor
   ☐ Master
   ☐ PHD
   ☐ Specialist

6. Monthly Income Level:
   ☐ RM 2500 - RM 3500
   ☐ RM 3501 - RM 4500
   ☐ RM 4501 - RM 5500
   ☐ RM 5501 or above

7. Computer and network facilities at home:
   ☐ Have no computer
   ☐ Have computer(s) but cannot connect to Internet
   ☐ Dial up connection
   ☐ Broadband (ADSL, Cable Modem)

8. Computer and network facilities at work:
   ☐ Have no computer
   ☐ Have computer(s) but cannot connect to Internet
   ☐ Dial up connection
   ☐ LAN
   ☐ Broadband (ADSL, Cable Modem)

9. Average hours of computer use in a week:
☐ 1 or less
☐ 2 - 4
☐ 5 - 7
☐ 8 or above

Section B: Factors Affecting E-Filing Adoption Intention and Behaviour
Please circle your answer to each statement using 5 Likert scale [(1) = Strongly disagree; (2) = Disagree; (3) = Neutral; (4) = Agree and (5) = Strongly agree].

Perceived Ease of Use

No.	Questions	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1	Learning to use tax E-filing and payment system would be easy for me.	1	2	3	4	5
2	I would find it is easy to prepare income tax filing using E-filing and payment system.	1	2	3	4	5
3	It would be easy for me to become skillful at using tax E-filing and payment system.	1	2	3	4	5
4	Instruction for using tax E-filing and payment system will be easy to follow.	1	2	3	4	5
5	I would find tax E-filing and payment system easy to use.	1	2	3	4	5

Perceived Usefulness

No.	Questions	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1	Using tax E-filing and payment system would improve my performance in tax filling.	1	2	3	4	5
2	Using tax E-filing and payment system would speed up the tax filing process.	1	2	3	4	5
3	Using tax E-filing and payment system would enhance my effectiveness in tax filling.	1	2	3	4	5
4	Using tax E-filing and payment system enables me to get refund from tax agency quickly.	1	2	3	4	5
5	I would find tax E-filing and payment system useful in preparing income tax filing.	1	2	3	4	5

Perceived Security

No.	Questions	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1	It is important that I feel safe and secure when I do tax E-filing.	1	2	3	4	5
2	It is important that I feel secure if I know that tax officer received and accepted my E-filing return.	1	2	3	4	5
3	It is safe and secure to give out bank account numbers over a computer.	1	2	3	4	5
4	It is secure if document is sent electronically than sent by courier or hand delivery.	1	2	3	4	5
5	I wish things to look secure for me in the future in the tax E-filing system.	1	2	3	4	5

Perceived Credibility

No.	Questions	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1	I trust on the technology used in tax E-filing.	1	2	3	4	5
2	I trust in the ability of tax authorities to protect submitted information.	1	2	3	4	5
3	I believe that submitted information is not subject to alteration/loss.	1	2	3	4	5
4	I believe that tax E-filing system is well tested and documented.	1	2	3	4	5

Perceived Service and Information Quality

No.	Questions	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1	I prefer to use E-filing service rather than manual return method.	1	2	3	4	5
2	E-filing service will benefit me and provide a good quality service.	1	2	3	4	5
3	I prefer to use E-filing service if the site is well organized.	1	2	3	4	5
4	I prefer to use E-filing service if the information in the site is enough.	1	2	3	4	5
5	I prefer to use E-filing service if the site does not take too long to load the page.	1	2	3	4	5

Section C: E-Filing Adoption Intention and Behavior

Please circle your answer to each statement using 5 Likert scale [(1) = Strongly disagree; (2) = Disagree; (3) = Neutral; (4) = Agree and (5) = Strongly agree].

E-Filing Adoption Intention

No.	Questions	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1	I intend to use E-filing and payment system for the next tax filing season.	1	2	3	4	5
2	I intend to use E-filing and payment system on a regular basis in the future.	1	2	3	4	5
3	I expect to use E-filing and payment system.	1	2	3	4	5
4	In choosing method for filing my tax return, E-filing and payment system is my priority.	1	2	3	4	5
5	I would like to recommend tax E-filing and payment system to my relatives and friends.	1	2	3	4	5

E-Filing Behaviour

No.	Questions	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1	I use E-filing because it is easy to use.	1	2	3	4	5
2	I use E-filing since it improves my tax return filing performance.	1	2	3	4	5
3	I use E-filing because of its perceived credibility.	1	2	3	4	5
4	I use E-filing because I feel secured.	1	2	3	4	5
5	I adopt E-filing because it provides a good service and information quality.	1	2	3	4	5
6	I use E-filing system each time I want to file my tax return.	1	2	3	4	5