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**The Acceptance of E-Filing Among The Individual Taxpayers**

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## THE ACCEPTANCE OF E-FILING AMONG THE INDIVIDUAL TAXPAYERS

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e-Filing is an important application that automates tax related processes in an attempt to improve efficiency in assessing and collecting tax information. It has the potential to improve tax-filing service while at the same time reducing costs to both taxpayers and tax collecting agencies. However, despite the readily available tax preparation software and its promotion by the government, only 20% of all Malaysian taxpayers switched to e-Filing in 2007 and most taxpayers still comfortable using the manual method, submitting via paper forms. Thus, the problem of under-utilization still remained and plagued the governments. Understanding why the taxpayers accept or reject and what are their perception towards e-Filing has proven to be a challenging issues. The growing interest in e-government thus raises the question of how the tax authority can increase the taxpayers' adoption of e-Filing. Therefore, this research tries to identify factors that influenced the acceptance of e-Filing amongst the individual taxpayers based on Combined Technology Acceptance Model & Theory of Planned Behavior (CTAM/TPB) Four major factors being identified which may have a relationship on influencing the usage of e-Filing among the individual taxpayers. The factors are: Perceived usefulness (PU), Perceived ease of use (PEU), Perceived Behavioral Control (PBC) and Perceived Risk (PR). The findings from 187 usable questionnaires show that perceived usefulness and perceived ease of use are the two variables that have significant relationships with the acceptance of e-Filing. When the significant effects of perceived usefulness and perceived ease of use (TAM constructs) on behavioral intention were observed, perceived usefulness exerting a stronger influence than perceived ease of use.

Keywords: Tax, Tax e-filing, e-government, improve efficiency

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## **1.0 Introduction**

Many governments today have adopted the e-Government systems to do their functions in providing their services and information as the usage of internet is consistently increased. In Malaysia, the first Internet Service Provider -"Jaring " was set up in 1994 (Rajah, 2001). In 1997, the Malaysian Government had launched the e- Government initiative to lead the country into the information-age. The implementation of e-Government in Malaysia heralds the beginning of a journey of reinventing the government by transforming the way it operates, modernizing and enhancing its service delivery. e-Government seeks to enhance the convenience, accessibility and quality of interactions with the public and businesses at a large network. It is expected to improve information flow and processes within the government, improve the speed and quality of policy development besides improve the coordination and enforcement. The vision focuses on effective and efficient delivering services from the government to the people of Malaysia, which enabling the government to become more responsive to the needs of its citizens. For the taxation e-system, the Inland Revenue Board (IRB) had introduced e-Filing which was launched on 17 May 2004 for corporation and 15<sup>th</sup> February 2005 for individual. Starting from 2006, taxpayers are able to choose from two methods of tax-filing, namely manual and internet-based or e-Filing.

E-Filing system encompasses the use of the internet technology, the worldwide web and tax preparation software for a wide range of tax administration and compliance purposes (FTA, 2001). The main advantage of an e-Filing system is that it integrates tax preparation, tax filing and tax payment. With the e-Filing system, taxpayers and tax practitioners can file income tax returns electronically, rather than through mail or physically visiting the tax office. Thus, this may eventually make the task of tax filing and tax payment as easy as possible.

The IRB improved its system continuously in order to increase the usage of e-Filing among the taxpayers. In early introduction of e-Filing (for the year assessment 2005), all tax return forms (B and BE) were in the PDF format which were exactly the same with the physical forms. The IRB improved the tax return form in the year assessment 2006 by introducing the e-BE and e-B forms which were more user friendly. The latest improvement for the year assessment 2007, the submission process was shortened by introducing Public Key Infrastructure (PKI) Technology roaming. The PKI Roaming is online which centralized by digital signatory application where all the process using the real time method (no downloading Active X Control application needed). The IRB also introduced e-Filing for the tax agents in 2008 which allowed them to act on behalf of the taxpayers. There are also additional forms available in the system to cater the different types of taxpayers such as e-P form, e-M form and e-E form. In order to encourage the public using e-Filing, the IRB aggressively promoting the advantageous of the system. Besides that, the IRB also opened a public counters

nationwide for members of the public to e-file their tax returns and provide customer service personnel to assist taxpayers in e-filing their tax returns.

Taxpayers in Malaysia, however, have yet to take up e-Filing aggressively. According to a newspaper report (Utusan Malaysia, 27 April 2008), only 186,343 taxpayers in the country have filed for tax assessment via the new e-Filing system in year assessment 2005 (shown in Table 1). The report also indicates that the IRB department has to handle approximately 4.5 million individual and corporate taxpayers and only 875,502 taxpayers submitted their forms online for year assessment 2006. This figures show that the usage of e-Filing among the taxpayers are low which is about 20%. The Inland Revenue Board (IRB) was targeting more than 2 million or 50 percent of taxpayers to use e-Filing system in 2008 and about 80 percent to use e-filing in the next five years. (The Star, 29 March 2008).

### **Table 1 is about here**

However, despite the readily available tax preparation software and its promotion by the government, only 20% of all Malaysian taxpayers switched to e-Filing in 2007 and most taxpayers still comfortable using the manual method, submitting via paper forms. Thus, the problem of underutilization still remained and plagued the governments. Understanding why the taxpayers accept or reject and what are their perception towards e-Filing has proven to be a challenging issues. The growing interests in e-government thus raise the question of how the tax authority can increase the taxpayers' adoption of e-Filing. Therefore, this research aims to identify factors that influence the acceptance of e-Filing among the individual taxpayers.

### **Literature Review**

E-Filing offers many benefits to the taxpayers. Bird and Oldman (2000) state that e-Filing has made it easier for taxpayers to obtain quick access to information concerning tax laws and changes to regulations, and thus made higher tax compliance for the taxpayers. Therefore, the use of the e-Filing system can reduce time consuming on visits and telephone calls to the tax authority, and also reduce inconveniences caused by other possible postal disruptions. Johnson (2004) agrees that e-Filing save much on the taxpayers' time. Besides that, e-Filing system will speed-up the process of getting tax refunds. In the US, taxpayers who filed electronically get their refund cheques twice as fast as those who filed on paper, and the waiting period for getting a tax refund via the electronic (i.e. direct debit into a banking account) was reduced by up to three weeks as compared to traditional paper filing (Craver, 2002).

The barriers of e-Filing system include a continued preference of taxpayers for paper filing, the lack of awareness of e-Filing and how to actually utilize it, and concerns about the privacy and security of tax data sent online (Lai, et al. 2004). In particular, some taxpayers (16%) are ambivalent towards the security of e-Filing technology, especially when it relates to sending personal financial transactions such as tax information online (ETAAC, 2002). Table 2 shows the barriers of e-Filing to the individual taxpayers.

**Table 2 is about here**

In addition, the ETAAC (2002) highlights that the main reason for objection raised by those not using electronic filing was that it offered no real benefit to their clients. Besides that, it is reported that clients of the respondents were not interested in electronic filing when those respondents discussed the issue with them.

Wang (2002) provides evidence of the significant effect of computer self-efficacy on behavioral intention through perceived ease of use, perceived usefulness, and perceived credibility. Consistent with the proposed hypotheses, users who have higher computer self-efficacy are likely to have more positive usefulness and ease of use beliefs, but also will have more negative credibility belief about the electronic tax-filing systems. Sulaiman, et al. (2005) in their finding highlight the use of E-Filing among tax agent is low. Lai, et al. (2004) argue that some of the respondents specifically expressed that they would only use the e-Filing system if the IRB could assure them that the electronic filing system were safe and secure, and if the usability and reliability of the E-Filing system were fully tested and well documented.

However, as time goes, the number of individuals filing returns electronically is increasing. During 2000, the IRS reported that over 35 million individual taxpayers, about 20% more than the previous year, filed their returns electronically. The number of e-file individual returns represented about 28% of all individual returns projected to be filed during 2000. The IRS Restructuring and Reform Act of 1998 established a goal that 80 percent of all tax and information returns be filed electronically by 2007 (GAO, 2001).

**Theories Related to Acceptance**

Technology Acceptance Model (TAM), developed by Davis (1989), is one of the most influential research models in studying new IT user acceptance (Fu, et al. 2006). Gattiker (1999) defines technology acceptance as an individual's psychological state with regard to his or her voluntary, intended use of a technology. The TAM represents an important theoretical contribution towards understanding IT usage and acceptance behavior (Davis, 1989). User acceptance of IT is a crucial factor in determination of information systems success, since unused or unaccepted systems have little value (Money & Turner, 2004). Technology acceptance is essential to study the adoption of certain innovation.

The TAM involves individual characteristic mediated by beliefs and attitudes which affect intention and behavior. Perceived usefulness (PU) and perceived ease of use (PEU) are key determinants that inevitably lead to the actual usage of a particular technology or system. Swanson (1988) defines user acceptance to be a “potential user’s predisposition toward personally using a specific system.” A review of previous research suggests that many studies were anchored in behavioral intention and reported a strong causal link between behavioral intention and targeted behavior (Chau, 2001). Agarwal and Prasad (1999) also argue that, in a survey-based research design, analysis of intention is more appropriate than actual usage. Phang et al. (2005) note that perceived usefulness of web sites is the significant predictor of senior citizen’s intention to adopt. Hence, the TAM might be useful in predicting usage for evaluating applications or technologies or to make comparison between user groups or applications (Adams et al. 1992 and Subramaniam, 1994) although the TAM also has limitations because its fundamental constructs do not fully reflected the varieties of user task environment and constraints.

Another related theory is the Theory of Planned Behavior (TPB). TPB incorporates subjective norms (SN) and perceived behaviors control (PBC) as direct determinants of Behaviour Intention (BI). SN is an individual’s perception that individuals who are important to him, or referents, believe that he should or should not perform a particular behavior (Fu, et al. 2006). On the other hand, PBC considers the influence that user perceptions of external constraints have on BI. PBC is composed of an individual’s perceptions that they are able to perform a particular behavior. For E-Filing context, TPB suggests that a taxpayer is more willing to file electronically if they have a positive attitude in using e-Filing and have requisite resources, skills and opportunities.

Taylor and Todd (1995) and Genuardi, (2004) propose a model to explain IT usage that is largely based on a combination of TAM and TPB. This model, the Combined TAM/TPB (CTAM/TPB), combines TAM and TPB by fully reintegrating the SN construct. Taylor and Todd’s (1995) study to test the CTAM/TPB considered an additional dimension of user experience, which is prior use (PU). They hypothesized that separating subjects into groups based on PU of the particular IT would reveal different strengths in the influence of the CTAM/TPB constructs.

### **Factors Influence e-Filing Usage**

The literature in consumer behavior suggests, when engaging in an online transaction process, concerns of inherent risk have surfaced as salient to many potential adopters (Hoffman, et al. 1999). However, actual risk is difficult to measure objectively. Literature has therefore primarily addressed the notion of perceived risk. Fogg (2002) highlights that users tend to aggressively look for a privacy policy on the website. However, this does not necessarily mean that users also read them. According to Cooper (1997) and Daniel (1999), another important factor affecting the acceptance and adoption of new

innovation is the level of security or risk associated with it. Security and privacy of self internet tax filing were significant to tax advisers, but visibility was unimportant (Hansford et al., 2005).

The existing mode of service or product delivery is able to reach the target of customer's demands adequately. However, there are still factors that influence the acceptance for this technology. Besides, the narrow minded thinking to a new way is also one of the reasons. For some, they much prefer to just go all along with what they have been used to. In the context of e-filing, the present of alternative modes of filing the income tax is where customers should try their best to get used to a specific need in order for them to operate using new technology offers today. If this need is failed to be reached by, perhaps taxpayers will not be well prepared to converting their way of operating.

Studies have also revealed that there is a significant correlation between web-site download speed and web user satisfaction [Hoffman, et al. (1999); and Muylle et al. 1998)]. In this context, the use of high-resolution graphics and inefficient web servers has a significant negative impact. However, it must be acknowledged that download speed is also dependent on the user's computing hardware and method of connection. As Malaysian Web services are at an infancy state, this factor may not play a major role in adoption decisions. Moreover, some taxpayers have generally been afraid of new technology. These taxpayers may not have the knowledge or know-how in dealing with computers specifically and thus trust human beings more than computers and machines. Their fear for computers and technology generally grows and eventually develops into a phobia for technology. Thus, technology phobia can also be a factor affecting the taxpayers' reluctance to adopt for e-filing.

As the deadline for submission nears, the number of people trying to access these websites is going to increase exponentially. Due to importance and nature of e-Tax filing application, these websites are high potential target for cyber attacks such as denial of service attacks and identity theft (Sharma & Yurcik, 2003). During the peak hour, due to the high number of transactions are being done through this e-Filing system, the line may sometimes be very busy. Due to this, not a surprise if there are quite a number who still prefer to do it using pen and paper method.

### **3.0 Research Design and Methodology**

The structure of this research model is based on Combined Technology Acceptance Model & Theory of Planned Behavior (CTAM/TPB). There are four major factors being identified which may have a relationship on influencing the usage of e-Filing among the individual taxpayers. The factors are Perceived usefulness (PU), Perceived ease of use (PEU), Perceived Behavioral Control (PBC) and Perceived Risk (PR). PU is defined as "the degree to which an individual believes that using a particular system would enhance his or her productivity" while PEU is defined as "the degree an individual believes that

using a particular system would be free of effort”(Davis, 1989). The most important factor in usefulness is the cost and time saving opportunities provided by the new system. The key aspects in ease of use are easy to learn and to use.

The PBC construct refers to an individual’s perceptions of the presence or absence of resources or opportunities necessary for performing an action. It is decomposed into both the internal notion of individual “self-efficacy (SE)” (Bandura, 1977) and to external resource constraints, similar to Triandis’s (Triandis, 1977) facilitating conditions. SE is related to perceived ability. The facilitating conditions consist of resource factors, such as computer equipment, and technology issues that may restrict usage. The absence of facilitating resources results in barriers to usage which may inhibit usage (Fu, et al. 2006).

PR is defined as the citizen’s belief that he will incur a loss while pursuing a given outcome (Pavlou 2003). PR is composed of behavioral and environmental uncertainty. Behavioral uncertainty exists due to the impersonal nature of the internet. In PR, the taxpayer’s perception of the uncertainty and adverse consequence of a desired outcome (Fu, et al. 2006). Taxpayers may hesitate to file their tax return via e-Filing if they perceive a lack of security and privacy in the process.

The data were gathered using questionnaire which is made up of three major sections. There are some demographic questions of the respondents includes some characteristics information on technology usage levels of users such as years of computing and internet experience and how respondents submitting their tax return form in section A. In this section, questionnaires were able to capture the individual taxpayers demographic information which included 12 items. For this section the respondents are requested to answer multiple choice questions. The questionnaire of was adapted from Fu, et al. (2006) with some alteration to suit the nature of the study. The second section of the survey includes TAM constructs as 5-Point Likert scale (1 strongly disagree to 5 strongly agree) adopted from previous studies to measure technology acceptance levels of individual taxpayers of e-Filing. Finally, the third section of the survey has again the same TAM/TPB constructs adopted from the same studies but this time to identify factors that influence the acceptance levels of individual taxpayers of e-Filing.

Measures of acceptance of e-Filing were derived primarily from the Agarwal & Karahanna study (2000) where they looked at fun and enjoyment interacting with the technology. They examined the behavioral intention to use the e-Filing as combination of carrying out the task and planned utilization in the future (Chau, 1996; Agarwal & Karahanna 2000). PU measured the enablement of the ability to accomplish tasks more quickly, improvement in performance, using the e-Filing to increase productivity and enhancing effectiveness. PEU measured the easiness to learn to use the e-Filing, getting what is needed, interacting with the internet in a clear and concise manner, ease of flexibility, and respondents’ ease to become skillful). PBC measured on taxpayers’



perception on presence or absence of resources or opportunities necessary for using e-Filing while PR measured the security and privacy of e-Filing.

A pilot test was undertaken to refine the design and focus the content of the questionnaire. Pilot testing was carried out in March 2008. A limited pre-test was conducted by soliciting feedback of 35 individual taxpayers lecturing at the Politeknik Sultan Salahuddin Abdul Aziz Shah. The reliability analysis of the pilot test questionnaire was conducted to test the reliability of the question.

### **Table 3 is about here**

A reliability analysis was conducted to each of the construct and each of the items. Table 3 shows the details of each construct and its  $\alpha$  value. The entire construct yielded  $\alpha > 0.80$  of the ideal value. The results showed that most respondents understood the questionnaires and thus, the instruments were deemed reliable. Test results of each item reliability revealed that all of items involved yielded values above the acceptability value for itemize tests of 0.6. The analysis found that all four independent variables (perceived of usefulness, perceived ease of use, perceived behavior control, perceived risk) considered as stable and acceptable since they are above 0.80.

This study used purposive sampling (Sekaran, 2003). It is a type of non probability sampling in which the sample is based on researchers' judgments of which respondents to include in the sample. The target population is the individual taxpayers in Shah Alam districts. The total of individual taxpayers in Shah Alam districts is 200,000. Subjects for this study are salaried employees who hold middle and senior administrative as well as professional positions, in public and private sectors located in Shah Alam.

Based on estimated response rate of 10%, 400 questionnaires were distributed to the respondents who were individual taxpayers in Shah Alam. 187 questionnaires were completed by the respondents and returned to the researcher. The response rate was about 47% which was considered high. The number of sample is considered sufficient as suggested by Roscoe (1976) where in multivariate research (including multiple regression analysis), the sample size should be several times (preferably 10 times or more) as large as the numbers of variables in the study. Based on variables in this study, the sample size at least is 40 (10 x 4 independent variables) but the researcher managed to get 187 respondents.

## **Results and Discussion**

Frequency analysis was executed to examine the demographic characteristics of the respondents. Nominal data like age, gender, marital status, educational background, individual taxpayers' position, salary, internet usage and method used in filing tax return form were presented in Table 4 and Table 5.

#### **Table 4 is about here**

The respondents consisted of various age groups. As shown in the tables, slightly more than half (57%) of the respondents aged between 30-39 years (Table 4) and 61.5% of the e-Filing users are in this range of age (Table 5). From the Table 4, the female employees had a slightly higher percentage than male with the ratio of 51:49. 43.8% of the e-Filing users are male and 56.3% are female (Table 5). The results show a majority of the respondents (79%) were married while 19% of the respondents are single and 2% are divorcee. The majority of e-Filing user were married with the percentage of 85.4%. The result shows that 58% of the respondents had a bachelor degree while 32% had a master degree. Generally, most of the respondents had at least a degree (91%) and 95% of e-Filing user were degree holders. The table 4 shows that 53% of the respondents are working in the private sector followed by public sectors 45% and 2% are self employed. 56.3% of e-Filing users working in the private sector. The frequency table shows that the majority of the respondents comprised of executives (26%), academician (25%) and middle management and professional (24%). Half of e-Filing users are executives and middle management and professional position. The result shows that 38% of respondents had income of between RM3,001 – RM4,000 per month and 34% of them were e-Filing user. The frequency table shows that 65% of the respondents had more than 10 years computer experience and 69% of this group were e-Filing users. Table 4 and 5 show that 96% of the respondents can access the internet, and 98% of this group were e-Filing user. The frequency table shows that 55% of the respondents who can access internet used internet more than 8 times a week. The highest group (60%) of e-Filing user was those who can access internet frequently (4-8 times a week). The table shows that, 53% of the respondents using internet between 1 to 3 hours a day 56% of them were e-Filing user.

#### **Table 5 is about here**

### **Filing Method**

The level of e-Filing acceptance among the individual taxpayers was obtained by computing the frequency of respondent using e-Filing for the year 2007. The result is present in the following Table 6.

#### **Table 6 is about here**

Based on the result, the numbers of individual taxpayers used e-Filing method is greater than manual method with the ratio 51:49.

## Multiple Regression Analysis

In order to determine the contribution of the PU, PEU, PBC and PR on acceptance of e-Filing, the regression analysis was conducted. Multiple regressions were used to explore the relationship between one continuous dependent or criterion variable and a number of independent variables or predictors (Sekaran, 2003; Coakes & Steed, 2007).

Multiple regression analysis is a statistical technique to predict the variance in the dependent variable by regressing independent variables (IV) against dependent variable (DV) (Sekaran, 2003). From the previous study, this paper has identified that IV has significant influence on the level of acceptance of e-Filing among the individual taxpayers. Furthermore, the detail analysis on each independent variable is also showing significance relationship with the dependent variable based on the Pearson  $r$  and  $p$  value obtained from the correlation analysis. All independent variables are considered as having high potential to influence the individual taxpayers to accept e-Filing.

The multiple regression analysis was used to find predictors that contributed to e-Filing acceptance. The following equation represents the of multiple regression analysis;

$$\gamma = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 \dots + B_n X_n$$

Where;  $\gamma$  = predicted dependent variable (acceptance of e-Filing)

$\alpha$  = constant value

$\beta$  = unstandardized beta coefficient

$X_1$  = perceived usefulness

$X_2$  = perceived ease of use

$X_3$  = perceived behavioral control

$X_4$  = perceived risk

Table 7 and Table 8 show the results summary of Multiple Regression analysis.

### Table 7 and 8 are about here

Multiple regression analysis showed that  $r^2$  is 0.638. In this analysis, the beta values for perceived usefulness ( $\beta_1$ ) is equal to + 0.519, perceived ease of use ( $\beta_2$ ) is equal to + 0.353, perceived behavioral control ( $\beta_3$ ) is equal to - 0.043, ( $\beta_4$ ) is equal to +0.035. Meanwhile, the constant,  $\alpha$  is equal to - .299. From the table, there are two IV-DV relationships obtain significance level,  $p$  less than 0.05, which are PU and PEU factors in regard with acceptance of e-Filing among the individual taxpayers. Both of the relationships are getting significance level  $p$  equal to 0.000. Meanwhile, relationships of PBC and PR, in regard to the acceptance of e-Filing among the individual taxpayers are having significance level  $p$  higher than standard setting 0.05, which is 0.498 and 0.532 respectively.

Therefore, simple conclusion can be made that there are significant and strong relationship between two independent variables (perceived usefulness and perceived ease

of use factors) on the level of acceptance of e-Filing among the individual taxpayers. The response results indicate that PU and PEU factors significantly influence e-Filing acceptance at  $p < 0.05$ . On the other hand, PBC and PR had no impact on level of e-Filing acceptance meanwhile. The relationships between PBC and PR, with regard to the acceptance of e-Filing among the individual taxpayers are considered insignificant.

The significant effects of PU and PEU (TAM constructs) on behavioral intention were observed, with PU exerting a stronger influence than PEU. This finding is consistent with study done by Ozgen and Turan, (2007) where they found PU, PEU and computer usage are the most important determinants of user acceptance of e-declaration tax system. Wang (2002) also found PU and PEU to be significant antecedents of the intention to use on electronic filing. Taxpayers tend to concentrate on usefulness (PU) of tax filing method as a result (Fu, et al., 2006).

The study also found that the TPB construct which is perceived behavioral control and perceived risk have no significant influenced in the acceptance of e-Filing. This is inconsistent with the previous study by Wang (2002) where perceived credibility (construct item similar to perceived risk) has a stronger influence than perceived usefulness on acceptance of e-Filing. This finding on perceived risk also inconsistent with research done by Carter, et al. (2008) and Hung, et al. (2006).

Perceived usefulness is the most important factor that influence the individual taxpayers to accept e-Filing. The opportunity of cost and time saving derived from e-Filing system would be a key factors on acceptance of e-Filing. It is important to IRB to incorporate useful and valuable functions into e-Filing software for the targeted taxpayers' practices and service needs and also to demonstrate the value of e-Filing to the taxpayers. This study also found the role of PEU on influencing the acceptance of e-Filing. The empirical results of this research give a good basis for making suggestions of issues that are good for IRB to take into considerations. The functionalities and features on e-Filing system should be emphasized to satisfy the taxpayers.

PBC and PR may not be important factors that directly influence the individual taxpayers' choices of tax filing method. It means the self efficacy and facilitating condition are not the main factor for the individual taxpayers to use e-Filing. Matter on security and privacy also has also no direct impact to the individual taxpayers to adopt e-Filing system. The responses on acceptance of e-Filing for manual taxpayers were significantly lower than e-filing taxpayers. The responses on PU, PEU and PBC for manual taxpayers were also significantly lower than e-Filing taxpayers but not for PR. The findings from this study indicate that the dominant users of e-Filing were female, ages 30-39 with at least degree qualification, more than 10 years experience and frequently using internet (4-8 times a week).

## Conclusion

Two variables that have been found to have influenced on the acceptance of e-Filing among the individual taxpayers namely are perceived usefulness and perceived ease of use. Although both of these variables are found to have significant impact on the dependent variable, however the two variables explained only 63.8 % of the variation in acceptance of e-filing. There are 36.2% of the variation have not been explained in the model.

Future studies could include other variables which may influence e-Filing acceptance. However empirical results of this research give a good basis for making suggestions of issues that are good for IRB to take into consideration. It is clear that taxpayers think that the e-Filing services are worthwhile and useful in doing tax declarations. This might imply that there are more expectations towards the functionalities. Those who are already familiar with e-Filing perhaps know more what is missing or additional features that be added to enhance their job performance. Further research should be conducted on other larger and more versatile target groups inclusive the corporate and individual taxpayers. More non-users should be involved in the study so that comparisons could be made between adaptors and non adopters of e-Filing. In addition, comparative studies of e-Filing practices in different countries should be conducted. Other analysis related to the demographic and background of the users would be beneficial to be undertaken in future in order to discover how they influence the decision to use e-Filing.

## Reference

- Adams, D. A., Nelson, R. R., & Todd, P. A. (1992). Perceived usefulness, ease of use, and usage of information technology: A replication. *MIS Quarterly*, 16, 227-247
- Agarwal, R. & Karahanna, E. (2000). Time flies when you are having fun: cognitive absorption and beliefs about information technology usage. *MIS Quarterly* 24: 665-694.
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84, 191–215.
- Bird, R. M. & Oldman, O. (2000). Improving taxpayer service and facilitating compliance in Singapore. *PREMnote* (48), 1-4.
- Carter, L., Schaupp, L.C. & Evans, A. (2008). Antecedents to e-File adption : The US perspective. *Proceedings of the 41st Hawaii International Conference on System Sciences - 2008*.
- Chau, P. Y. K. (1996). An empirical assessment of a modified technology acceptance model. *Journal of Management Information Systems* 13: 185 - 2004.
- Coakes, S. J. & Steed, L. (2007). *SPSS Version 14.0 for Windows Analysis Without Anguish*, John Wiley & Sons Australia, Ltd.

- Cooper, R.G. (1997). Examining some myths about new product winners, in Katz, R. (Ed) , *The Human Side of Managing Technological Innovation*, Oxford, pp. 550-60.
- Craver, K.W. (2002, Paperback). *Creating Cyber Libraries: An Instructional Guide for School Library Media Specialists*, Libraries Unltd Inc, Englewood, CO.
- Daniel, E. (1999). Provision of electronic banking in the UK and Republic of Ireland, *International Journal of Bank Marketing*, Vol. 17 No. 2, pp.72-82.
- Davis, F.D. (1989). Perceived usefulness, perceived ease of use and user acceptance of information technology. *MIS Quarterly*, 13(3), pp. 319-340.
- ETAAC. (2002), *Electronic Tax Administration Advisory Committee: Annual Report to Congress*: Electronic Tax Administration Advisory Committee (ETAAC), USA.
- Fogg B.J., (2002). Stanford-Makovsky Web Credibility Study 2002 Investigating What Makes Web Sites Credible Today.
- Fu, J.-R., Chao, W.P & Farn, C.K. (2006). Determinant of taxpayers' adoption of electronic filing methods in Taiwan: An exploratory study. *Journal of Information & Management* 43: 109 -126.
- Gattiker, U.E. (1990). *Technology Management in Organization*, Sage, Newbury Park, CA.
- Government Accountability Office (GAO) (2001). *Internal revenue Service: 2001 tax filing season, systems modernization, and security of Electronic filing*. Washington, D.C: Government Accountability Office.
- Genuardi, P. (2004). User adoption of information technology: Implications for product development research, *thesis submitted to the Faculty of the Graduate School of Arts and Sciences of Georgetown University*.
- Hansford, A., Lymer, A., & Pillkington, C. (2006) IT Adoption Strategies and Their Application To E-Filing Self Assessment Tax Returns: The Case Of The UK, *e Journal of Tax Research*, 4(1): 80-96.
- Hoffman, D.L. & Novak, T., Peralta, M. (1999). Building consumer trust online, *Communications of the ACM* 14(2): 80–85..
- Hung, S.-Y., Chang, C.M. & Yu, T.J. (2006). Determinants of user acceptance of the e-Government services: The case of online tax filing and payment system. *Government Information Quarterly* 23: 97-122.
- Hwang, C. S. (2000). A comparative study of tax-filing methods: manual, Internet and two-dimensional bar code. *Journal of Government Information* 27: 113-127.
- Lai, M.L., Siti Normala, S.O., & Kameel, A.M. (2004). Towards an Electronic Filing System: A Malaysian Survey. *eJournal of Tax Research* 2(1): 100 - 112.
- Money, W. and Turner, A. (2004), "Application of the technology acceptance model to a knowledge management system", *Proceedings of the 37th Annual Hawaii International Conference*.
- Muylle, S., Moenaert, R. & Despontin, M. (1998): Introducing Web site user satisfaction: an integration of a qualitative pilot study with related MIS research, *Working paper*, Owen Graduate School of Management, Vanderbilt University, Nashville.
- Ozgen, F.B. & Turan, A.H. (2007). Usage and adoption of online tax filing and payment system in tax management: An empirical assessment with Technology Acceptance (TAM) Model in Turkey. *9th International Scientific Conference, Management Horizons: Visions and Challenges*, Vytautas Magnus University, 27 - 28 September 2007, Kaunas-Lithuania, 215-233.

- Pavlou, P. (2003). Consumer acceptance of electronic commerce : Integrating trust and risk with the Technology Acceptance Model. *International Journal of Electronic Commerce* 7: 69-103.
- Phang, C.W., Sutanto, J., Li, Y. & Kankanhalli, A. (2005). *Senior Citizens' Adoption of E-Government: In Quest of the Antecedents of Perceived Usefulness*. Proceedings of the 38th Hawaii International Conference on System Sciences.
- Rajah, D.P. (2001). The Growth and Development of Internet Trading and Commerce – The Legal Issues. *MBA Thesis Submitted to Strathclyde Graduate Business School*.
- Sekaran, U. (2003). *Research Methods For Business : A Skill Building Approach 4th Ed*, John Wiley & Son Inc
- Sharma, A. & Yurcik, W. (2003). *An e-tax internet filing system incorporating security and usability best practices*. Source: [http://www.ncsa.illinois.edu/~aashish/papers/Sharma\\_Yurcik\\_ICETE2004.pdf](http://www.ncsa.illinois.edu/~aashish/papers/Sharma_Yurcik_ICETE2004.pdf)
- Subramanian, G. H. (1994). A replication of perceived usefulness and perceived ease of use measurement. *Decision Sciences*, 25(5/6), 863-873.
- Sulaiman, A.J., Khalid, A.Z.A. & Ibrahim, I. (2005). Perception of electronic filing (E-Filing) among the tax agents in Northern Region of Malaysia. Unpublished paper.
- Swanson, E. B. (1988). *Information System Implementation: Bridging the Gap Between Design and Utilization*. Home-Wood: IRWIN, Inc.
- Taylor, S. & Todd, P.A. (1995). Understanding Information Technology Usage: A Test of Competing Models. *Information systems research* 6(2): 144-176.
- Triandis, H.C. (1977). *Interpersonal behavior*, Brooke/Cole, Monterey, CA.
- Wang, Y.S. (2002). "The adoption of electronic tax filing systems: an empirical study." *Government Information Quarterly* 20: 333-352.

**Table 1: Statistic e-Filing**

Category	Form	YA 2005	YA 2006
Individual	B (business)	22,393	110,942
	BE (employment)	163,878	762,153
Company	C (company)	298	1,956
	R (revised s 108 balance)	296	451
<b>Total</b>		<b>186,343</b>	<b>875,502</b>

**Table 2: Barriers of e-Filing**

Barriers	Percentage (%)
E-file not perceived to be better, prefer paper filing	19 %
Don't know enough about e-filing yet	17 %
Concerned about privacy or security issues	16 %
Heard about e-file, but don't know how to do it	15 %
Concern about not getting a signed paper copy of the return	14 %
Habit : used to filing on paper	13 %
Perception that they are not 'qualified' to e- file	12 %
Lack of access to a computer or tax software	12 %
Presence of 'third party' business in the return filing process	12 %
Concern about the cost of e-filing	9 %

*Source: ETAAC (2002, p.9)*

**Table 3: Reliability Test**

Item	Cronbach's Alpha ( $\alpha$ )
All Variables	0.844
Perceived Usefulness (PU)	0.928
Perceived Ease of Use (PEU)	0.925
Perceived Behavior Control (PBC)	0.867
Perceived Risk (PR)	0.809

**Table 4: Summary of Demographic Study**

Demographic Elements	Variables	Frequency	Percentage (%)
Age	20-29 years	29	15.5
	30-39 years	106	56.7
	40-49 years	37	19.8
	50-59 years	15	8.0
	Total	187	100.0
Gender	Male	93	49.7
	Female	94	50.3
	Total	187	100.0
Marital Status	Single	36	19.3



	Married	147	78.6
	Divorcee	4	2.1
	Total	187	100.0
Education Level	SPM/MCE/Certificate	5	2.7
	STPM /Diploma	12	6.4
	Bachelor Degree / Adv. Diploma	109	58.3
	Masters Degree	59	31.6
	Doctorate Level	2	1.1
	Total	187	100.0
Working Sector	Public	84	44.9
	Private	100	53.5
	Self Employed	3	1.6
	Total	187	
Current Position	Supervisor	7	3.7
	Executive	49	26.2
	Middle Management & Professional	45	24.1
	Senior Management & Professional	19	10.2
	Director / CEO	9	4.8
	Academician / Lecturer	47	25.1
	Others	11	5.9
	Total	187	100.0
Average Salary	RM2000-RM3000	50	26.7
	RM3001-RM4000	71	38.0
	RM4001-RM5000	17	9.1
	RM5001-RM6000	14	7.5
	> RM6000	35	18.7
	Total	187	100.0
Computer Experience	1-3 years	9	4.8
	4-6 years	19	10.2
	7-9 years	38	20.3
	> 10 years	121	64.7
	Total	187	100.0
Access Internet	Yes	180	96.3
	No	7	3.7
	Total	187	100.0
Frequent	Never	5	2.7
	Seldom (1-4 times a week)	28	15.2
	Frequently (4-8 times a week)	50	27
	Often (>8 times a week)	102	55.1
	Total	185	100
Hours Using Internet	< 1 hour	30	16.2

1-3 hours	98	53.0
3-5 hours	28	15.1
> 5 hours	29	15.7
Total	185	100

**Table 5: Demographic vs Filing Method**

Demographic		Manual		e-Filing	
		Count	%	Count	%
<b>Age</b>	20-29 years	15	16.5	14	14.6
	30-39 years	47	51.6	59	61.5
	40-49 years	20	22	17	17.7
	50-59 years	9	9.9	6	6.3
<b>Gender</b>	Male	51	56	42	43.8
	Female	40	44	54	56.3
<b>Marital Status</b>	Single	23	25.3	13	13.5
	Married	65	71.4	82	85.4
	Divorcee	3	3.3	1	1
<b>Education Level</b>	SPM/MCE/Certificate	4	4.4	1	1
	STPM /Diploma	8	8.8	4	4.2
	Bachelor Degree / Adv. Diploma	45	49.5	64	66.7
	Masters Degree	33	36.3	26	27.1
	Doctorate Level	1	1.1	1	1
<b>Working Sector</b>	Public	43	47.3	41	42.7
	Private	46	50.5	54	56.3
	Self-Employed	2	2.2	1	1
<b>Current Position</b>	Supervisor	4	4.4	3	3.1
	Executive	23	25.3	26	27.1
	Middle Management & Professional	20	22	25	26
	Senior Management & Professional	10	11	9	9.4
	Director / CEO	6	6.6	3	3.1
	Academician / Lecturer	22	24.2	25	26
	Others	6	6.6	5	5.2
<b>Average Salary</b>	RM2000-RM3000	26	28.6	24	25.3
	RM3001-RM4000	38	41.8	32	33.7
	RM4001 – RM5000	8	8.8	9.5	9
	RM5001 – RM6000	2	2.2	12	12.6
	> RM 6000	17	18.7	18	18.9
<b>Computer Experience</b>	1-3 years	5	5.5	4	4.2
	4-6 years	11	12.1	6	8.3
	7-9 years	21	23.1	17	17.7
	> 10 years	54	59.3	66	68.8
<b>Access Internet</b>	Yes	86	94.5	94	97.9
	No	5	5.5	2	2.1
<b>Frequent using</b>	Never	4	4.4	1	1.1

<b>internet</b>	Seldom (1-4 times a week)	15	16.7	13	13.7
	Frequently (4-8 times a week)	26	28.9	24	60
	Often (> 8 times a week )	45	50	57	51.4
<b>Hours using internet</b>	< 1 hour	18	20	12	12.6
	1-3 hours	48	53.3	50	52.6
	3-5 hours	14	15.6	14	14.7
	> 5hours	10	11.1	19	20.0

**Table 6: Comparison between Manual and e-Filing Method**

<i>Tax Filing Method</i>	<i>Frequency</i>	<i>Percentage</i>
MANUAL	91	48.7
e-FILING	96	51.3
<b>TOTAL</b>	<b>187</b>	<b>100</b>

**Table 7: Multiple Regression Analysis – Model Summary**

Determinant coefficient ( $r^2$ )	0.638
Determinant coefficient (adjusted $r^2$ )	0.630
Standard error	0.495
Significance level (accepted $p < 0.05$ )	0.000

*A Predictors: (Constant), PR, PEU, PBC, PU*

**Table 8: Multiple Regression Analysis – Table of Coefficient**

Model	Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.
	B	Std. Error			
(Constant)	-0.299	0.246		-1.214	0.226
PU	0.609	0.078	0.519	7.758	0.000
PEU	0.446	0.89	0.353	4.993	0.000
PBC	-0.055	0.080	-0.043	-0.679	0.498
PR	0.041	0.066	0.035	0.626	0.532

*A Dependent Variable: ACCEPTANCE*