



DETERMINANTS OF ONLINE TAX PAYMENT SYSTEM IN MALAYSIA

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Abstract

Government in various countries has invested billions of money in information system development in order to provide better delivery services to its citizens. However, there were reports that those systems were underutilized. In Malaysia, online tax payment system is provided to facilitate the taxpayers to pay their taxes electronically via the tax authority website. Yet, the taxpayers are not using the system despite of its two year existence in the community. Thus, identifying factors contributing to taxpayers' acceptance of the said system is very important so that the present online tax payment system can be further enhanced and will accordingly lead to the increase of its usage level. To date, none of the technology acceptance research has been conducted to evaluate taxpayers' acceptance of online tax payment system in Malaysia. Therefore to overcome this deficiency, this study is being conducted. The main objective of this study is to identify factors affecting taxpayers' acceptance of online tax payment system in Malaysia. An online survey has been conducted for a one month period that is from 28 January to 28 February 2009. Using the Technology Acceptance Model (TAM) as its foundation, this study includes additional constructs namely subjective norms, self-efficacy, perceived credibility and amount of information in the research framework. The findings indicate that besides perceived usefulness, subjective norms and self-efficacy are also significant predictors of intention to use online tax payment system in Malaysia. However, no significant influence is found for perceived ease of use, perceived credibility and amount of information. Overall, this study offers important insights to the tax authority in improving and enriching their online services in general and online tax payment system, in particular.

Keywords: Malaysia, I.S., Taxation

1. Introduction

In Malaysia, direct taxes such as income tax, company tax and petroleum tax are administered by the Inland Revenue Board Malaysia (IRBM) while indirect taxes such as sales tax, service tax and excise duty are governed by Royal Malaysian Customs (RMC). The emergence of technology in Malaysia has encouraged the

development of electronic services (e-services) offered by either the government agencies or private companies. The establishment of e-procurement, internet banking facilities and other payment portals are examples of extensive e-services in Malaysia. Thus, to cope with the emerging technology, IRBM has embarked on electronic services such as e-Filing and *e-Bayaran* for the convenience of the public they served. These electronic services have provided simpler and faster taxation services and greater tax administrative efficiency. E-Filing for instance enables the taxpayers to file their return form electronically whilst *e-Bayaran* provides alternative payment channel for taxpayers to pay their income taxes online. Both systems are to facilitate taxpayers to fulfil their tax obligation hassle free thus will encourage for tax compliance and accordingly increase the tax collection amount. An increase in tax collection amount will contribute to the increment in Government's revenue that is used to provide the followings to the public: (a) better facilities for educational purposes to enhance the human capital of the nation; (b) better infrastructure, such as better road maintenance and public facilities and (c) better health services in government hospitals. According to Taylor (2003) Government's use of information technologies in their services to the citizen will lead to a better deliveries of the government services, more efficient management, less corruption, more transparency, greater convenience, increased revenue and reduced costs. Hence, it is important for IRBM to better understand taxpayers' needs in information system so that they will be able to formulate their businesses and marketing strategies more effectively towards increasing the utilization of e-services provided by them.

IRBM has introduced an online tax payment system called *e-Bayaran* in 2007 for two main objectives; (a) to expedite the tax payment processes and (b) to offer variety of payment channels for taxpayers to pay their income taxes. Table 1.1 presents the statistic on online tax payment transaction made through the three online payment channels in 2007. The statistic denotes that the acceptance rate of *e-Bayaran* system in 2007 is at 9.08% which is still relatively low as compared to the payments made with the other two banks. Despite of being comparatively new, IRBM still has a long way to improve the present system in order to gain public confidence to use it. Thus, this study is important to identify factors that are influential to taxpayers' acceptance of *e-Bayaran* system and accordingly the present system can be further improved to fulfil the confidence lag among the taxpayers.

Table 1.1: Statistic on Income Tax Payment Received Through Online Channels in 2007

	Number of transactions	Percentage (%)	Amount collected RM
PBB ¹	12,253	70.97	22,277,966.34
CIMB ²	3,445	19.95	1,799,953.16
<i>e-Bayaran</i>	1,567	9.08	1,012,483.90
Total	17,265	100.00	25,090,403.40

Source: [Statistic Department, IRBM, 2008]

A system is deemed to benefit an organization if it is used by the intended users. However, low acceptance rate is the dilemma that needs to be faced by any organizations that have invested millions of money in information systems. For example, Taiwanese government has reported that the online tax filling and payment system (OTFPS) acceptance rate was at 15.05% in 2003 and 21.06% in 2004 while in

¹ PBB – Public Bank Berhad

² CIMB – CIMB Bank Berhad

United States the acceptance rate was at 20.11% in 2003 and 22.16% in 2004 [Hung, Chang, & Yu, 2006]. Low usage of *e-Bayaran* system indicates that some taxpayers are not accepting the system. Given the need to rectify this problem, IRBM must evaluate taxpayers' assessment towards *e-Bayaran* system and examine significant factors that might affect them to transact using this system. Thus, this study is being conducted to examine factors affecting taxpayers' acceptance of online tax payment system or *e-Bayaran* system in Malaysia. Identifying factors that may affect taxpayers' acceptance of *e-Bayaran* system is needed in order to better understand the taxpayers' reaction towards the system. By understanding factors that lead to taxpayers' acceptance of *e-Bayaran* system, IRBM can enhance the existing *e-Bayaran* features. Simultaneously, this enhancement will hasten the usage level among taxpayers in Malaysia. It is futile for spending millions of money in developing systems when the taxpayers will not be using them. No matter how good is the provided system, without users it would still be a failure.

The findings of this study are anticipated to benefit Inland Revenue Board Malaysia (IRBM) in two folds. Firstly, this study will provide information to better understand factors that may affect taxpayers' decision whether to transact online or not. Once those factors had been identified, it can be used to explain taxpayers' acceptance towards online tax payment system in Malaysia. Since IRBM is the organization responsible for any income tax matter, the findings of this study can facilitate IRBM in improving its electronic services especially *e-Bayaran* system in order to increase the usage level of the said system. Secondly, the result from this study can assist IRBM in finding ways, approaches and improvement to encourage taxpayers to use electronic services provided by IRBM to expedite any tax administration processes involve. This would help reduce the crowd significantly at IRB's service counters and more tax officers can be utilized in assisting and educating taxpayers on other tax matters. Besides IRBM, other agencies that provided electronic services to its clients may also use the findings to enhance their current systems to boost its usage level.

Moreover, study this is still under-researched in Malaysia. Most studies focused either on internet shopping, internet banking, websites' adoption or user acceptance in learning environment. To date, none of the research has been conducted in this field. Therefore, the present study will contribute an additional literature to the body of knowledge on taxation research and user acceptance research in Malaysia.

2. Theoretical Background

It is impossible to think of any organization without the need of information system in their entities. Information system has helped organizations to be highly efficient and to stay competitive in its environment; therefore it has been widely used in public sector and business organizations. Organizations invest in information system for many reasons. Business organizations for example, may invest in information system in order to reduce operating costs and to stay competitive in the market. They have shifted from traditional ways of doing business to modern technologies which offer more convenience and faster processing activities. For instance in banking environment, traditional banking activities such as bill payments, funds transfer or even passbooks updating can be done within a few minutes. Many governments and other public sector organizations invest on information system to offer more effective government management. Colesca and Liliana [2008] claim that an effective government management must portray less corruption, increased transparency, better delivery of government services, improved interactions with business and industry,

greater convenience, citizen empowerment through access of information, growth of revenues, cost reduction and so on. Therefore, to achieve effective government management, employing the right information system is essential to ensure improved government's transparency, responsiveness and accountability towards its customers [Belanger & Carter, 2008].

The emergence of electronic government, so called e-government is the evidence of successful utilization of information system in government organizations. Internet technology is proven to be the most powerful and popular means of delivering e-government around the world [Wangpipatwong, Chutimaskul & Papasratorn, 2008]. A study to identify factors related to benefits and barriers of e-government adoption has been conducted by Gilbert and Balestrini [2004]. They found nine factors important to government's adoption where three of them namely less time, cost and avoiding interaction; are related to benefits while the other six particularly experience, information quality, financial security, low stress, trust and visual appeal are factors that are related to the barriers of adoption. They concluded that adoption rate will not likely be increased if factors related to barriers are not properly addressed. Hence, users' acceptance has critical impact on the success of the system adopted. If users are not willing to accept a new information system, it will not bring full benefits to the organization that has made huge investment on it [Pikkarainen, Pikkarainen, Karjaluoto & Pahnla, 2004]. According to Pikkarainen et al. the usage of a system can be an indicator of information system success. Whether the system is regarded as good or bad depends on how the users perceived about the system. If the users perceived that the system is useless and did not accept the system, then that system cannot be regarded as an effective system, however if the users perceived that the system is useful and accept it, then the system has achieved its goal on efficiency and effectiveness. In other words, no matter how good the system is, without users, the system would still be a failure. As such, in ensuring the success of any developed systems, it is vital to find out reasons why people decide to use or not to use the information system and determine factors that may affect their acceptance of those systems.

2.1. Technology Acceptance Model (TAM)

Technology Acceptance Model (TAM) is used as the foundation in this study for two reasons; (a) it is easy to be applied and (b) provide better understanding on the relationship amongst the variables use in the study [Amin, 2008]. Furthermore, it is one of the most influential models which have been widely used in the studies of the determinants of information system acceptance [Ramayah and Jantan, 2004]. Introduced in 1989 by Fred D. Davis, TAM is an information systems theory that models how users come to accept and use a technology. TAM is an adaptation of TRA and specifically tailored for modelling user acceptance of information systems [Venkatesh, 2000; Ramayah & Jantan, 2004; Sun & Zhang, 2006; Amin, 2007a; Chung, 2008]. TAM is established generally to provide an explanation of the determinants of technology acceptance and capable of explaining user behaviour across a broad range of end-user technologies and user populations while at the same time being parsimonious and theoretically justified [Alrafi, 2006; Amin, 2007b; Amin, Baba & Muhammad, 2007; Amin, 2008; Chung, 2008]. The model proposes that when users are presented with a particular technology, two particular beliefs namely perceived usefulness and perceived ease of use affect their behavioural intention to use the system.

TAM has been studied in various settings. For example, Leong [2003] has conducted a study on the robustness of TAM after a decade of its establishment to find out whether TAM is still valid after rapid changes in systems and technologies. He replicated Davis et al. [1989] and used Ms Access as the application software in his study. The results supported the applicability of TAM in the recent technologies where it showed that the two salient beliefs in TAM still provide significant effects on the usage of the tested technology. A longitudinal study examining technology acceptance by school teachers in Hong Kong has been carried out by Hu, Clark and Ma [2003]. They found that perceived usefulness was the most important determinant of teachers' acceptance of Power Point application. However, contrary to Davis et al. [1989], perceived ease of use failed to show a significant effect on intention. According to Hu et al. this contrary result might be due to job relevancy was perceived far more important than ease of use. Thus, even how easy the technology is, it will still not be used if it is perceived as not useful or relevance in ones job.

In Malaysia, Md Noor, Hashim, Haron and Ariffin [2005] have studied the effect of perception of trust, risk and sharing on intention to share and actual sharing of information at the customer to community (C2C) travel and tourism websites. Contradictory to other TAM findings, this study found perceived usefulness and ease of use of knowledge sharing website did not contribute to the intention behaviour. Ignatius and Ramayah [2005] provide an empirical investigation on Course Website Acceptance Model (CWAM) which is a modification from TAM [Davis et al., 1989] in investigating course website acceptance amongst students in universities and they suggested that culture may have a potential effect on adoption of information technologies especially in the developing countries. Amin [2008] presented a study on factors influencing the intentions of customers in Malaysia to use mobile phone credit cards and found TAM variables have significantly affected customer intention to use mobile phone credit cards. Previously, Amin et al. [2007] have conducted an examination on mobile banking acceptance by Malaysian customers where they added perceived credibility, perceived self-efficacy and normative pressure with TAM. They discovered all elements are significant factors of behavioural intention except for normative pressure where this factor has no significant effect on the intention to use mobile banking.

Besides mobile banking, studies have also been conducted on acceptance of internet banking in Malaysia. Md Nor [2008] has studied the impact of ethnicity on internet banking adoption. He selected Malay and Chinese ethnic groups and compared their perceptions on internet banking adoption. He found Malays and Chinese perceived trust as the most influential factor of internet banking adoption in Malaysia. However the Chinese also put higher emphasis on perceived usefulness than the Malays. According to Md Nor, this result might be due to the cultural traits where the Chinese tend to put more emphasis on the benefits they will get before adopting any technology. Another study on internet banking adoption was conducted by Lallmahamood [2007] who found perceived security and privacy as the second important element in internet banking adoption after perceived usefulness. He found perceived usefulness, ease of use and credibility have explained approximately 53.2% of variance in intention to adopt internet banking. Ramayah, Mohd Suki and Ibrahim [2005] have examined technology acceptance of online bill payment system and found support for applicability of TAM in explaining intention to use online bill payment system among postgraduate students in Malaysia.

TAM has also been tested in taxation environment. Online tax services have been established to offer more convenience and accessibility of tax services and

information to the taxpayers. Wang [2002] has conducted an empirical study on adoption of electronic filing systems in Taiwan and found extended TAM contributes 62% of explained variance in behavioural intention. The results showed perceived usefulness, ease of use and credibility did have significant effect on behavioural intention with perceived ease of use contributed more to intention as compare to the other variables. A study to investigate determinants of user acceptance of online tax payment has been conducted in Taiwan by Hung et al. [2006]. However, in Taiwan, the online tax filing and online tax payment facilities are incorporated into one system and is named as Online Tax Filing and Payment System (OTFPS). They have employed decomposed TPB theory which also includes the TAM variables in explaining Taiwanese taxpayers in accepting the OTFPS. The findings showed that the model explained 72% of variance in intention and both TAM variables were significant determinants of intention to use the OTFPS. In Malaysia, Lai, Sheikh Obid and Meera [2005] have empirically tested e-Filing system acceptance among the tax practitioners. They found that e-Filing system was perceived as useful and easy to use and the respondents had positive attitudes towards using the system.

2.2. Additional Constructs

In addition to the two salient beliefs of TAM namely perceived usefulness and perceived ease of use, four additional factors are included in present study to provide better understanding on taxpayers' acceptance of *e-Bayaran* system in Malaysia. These four factors that are subjective norms, self-efficacy, perceived credibility and amount of information have been reported to have some effect on acceptance of technologies in previous studies. For example, subjective norms was reported to have significant effect on acceptance of technology in mandatory setting [Venkatesh and Davis, 2000] while self-efficacy has been demonstrated to have influence on the behavioral intention of e-library usage and also mobile banking acceptance e [Ramayah & Aafaqi, 2004 and Amin et al., 2007]. Perceived credibility and amount of information also have presented significant direct effect on most previous studies such as mobile phone credit cards acceptance, mobile banking acceptance and internet banking acceptance [Wang et al., 2003; Amin, 2007a and 2008]. Therefore, a research framework as depicted in Figure 2.1 will be used in examining factors affecting taxpayers' acceptance of *e-Bayaran* system where the framework postulates that perceived usefulness, perceived ease of use, subjective norms, self-efficacy, perceived credibility and amount of information of *e-Bayaran* system have significantly affected taxpayers' intention to use the system. As reported by many other previous studies, perceived ease of use is also posited to have significant effect on perceived usefulness of *e-Bayaran* system.

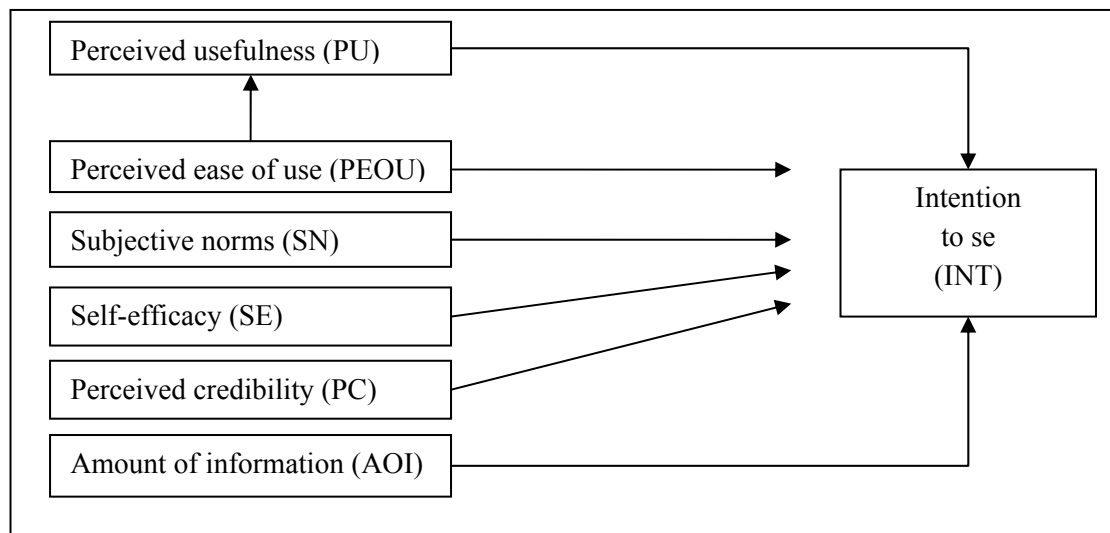


Figure 2.1: Research Framework

2.3 Hypotheses

2.3.1 Perceived Usefulness (PU) and Perceived Ease of Use (PEOU)

Davis [1989] defined perceived usefulness as the degree to which an individual believes that using a particular system would enhance his or her job performance while perceived ease of use is referred to the degree an individual believes that using a particular system would be free of effort. Both elements are considered as distinct factors even though most of the acceptance studies show perceived ease of use is influential to perceived usefulness [Pikkarainen et al., 2004; Ramayah & Aafaqi, 2004; Amin, 2008; Chung, 2008]. In this study, perceived usefulness refers to the degree to which a taxpayer believes that using *e-Bayaran* system to pay income tax payments would enhance his or her productivity while perceived ease of use reflects the degree a taxpayer consider that using *e-Bayaran* system would be effortless. Empirically many studies have found significant relationship between perceived usefulness and perceived ease of use with intention to use information technologies [Davis et al., 1989; Venkatesh & Davis, 2000, Venkatesh et al., 2003; Pikkarainen et al., 2004; Ramayah & Aafaqi, 2004; Amin et al., 2007; Amin, 2008 and Chung, 2008]. Therefore it is expected that when taxpayers believe that *e-Bayaran* system is useful and easy to use, they will intend to use the system. Results from past studies also revealed a significant association between perceived ease of use and perceived usefulness [Davis et al., 1989; Venkatesh et al., 2000, Venkatesh et al., 2003; Masrom, 2007; Amin, 2008 and Chung, 2008]. This indicates that taxpayers will perceive *e-Bayaran* system as a useful system if it is easy to use. Based on the above discussions, the following hypotheses are posited:

- H₁: Taxpayers' intention to use *e-Bayaran* system for their income tax payments is significantly affected by perceived usefulness and perceived ease of use of the system.
- H₂: Perceived ease of use of *e-Bayaran* system has significant positive effect on perceived usefulness of the system

2.3.2 *Subjective Norms (SN)*

Subjective Norms is defined as the person's perception that most people around him think he should or should not perform the behaviour in question. Mixed results have been reported by previous studies on the relationship between subjective norms and intention. For example, Davis et al. [1989] found no significant effect between subjective norm and intention to use which justified the exclusion of subjective norms in the original TAM. Similar result was also demonstrated in a research conducted on e-learning adoption [Ndubisi, 2006]. However, Venkatesh and Davis [2000] presented complex relationships between subjective norm and behaviour intention. Their study revealed that in mandatory setting, subjective norm did have a direct effect on intention, but no direct effect was found in voluntary setting. In Malaysia, taxpayers are obliged to settle any tax dues but they are not bound to pay their outstanding taxes through *e-Bayaran* system.

Since making tax payment through *e-Bayaran* system is not a compulsory requirement, taxpayers are assumed to be influenced by other people opinions and experiences before performing any task. Furthermore, *e-Bayaran* system is a new system in its field. Thus, it is posited that subjective norms will have positive impact on taxpayers' intention to use *e-Bayaran* system to pay for their income taxes. Hence, the following hypothesis is tested:

H₃: Subjective norms will have significant influence on taxpayers' intention to use *e-Bayaran* system.

2.3.3 *Self-Efficacy (SE)*

Self-efficacy refers to the belief that one has about the capability to perform a particular behaviour [Ramayah and Aafaqi, 2004]. In present study, self-efficacy is referred to the belief that a taxpayer possesses about his capability on performing tax payment transactions through *e-Bayaran* system. Amin et al. [2007] found self-efficacy as one of the significant factors in determining mobile banking acceptance. The same result was also reported in a study conducted on e-library usage amongst the university's students [Ramayah & Aafaqi, 2004].

Thus, it is expected that self-efficacy will positively influence the taxpayers' intention to use *e-Bayaran* system. In other words, the higher taxpayers' perceived their self-efficacy to operate *e-Bayaran* system, the greater their intention to use the system. Therefore, the following hypothesis is tested:

H₄: Self-efficacy will have positive impact on taxpayers' intention to use *e-Bayaran* system.

2.3.4 *Perceived Credibility (PC)*

According to Wang et al. [2003], perceived credibility consists of two important elements namely privacy and security. Security and privacy can be associated with trust and perceived risk where users will only perform transactions through internet banking system if they develop a certain level of trust and low level of perceived risk. If users have a higher level of trust on the information system, they will perceive the risk associated with the system at the minimum level and vice versa. Wang et al. [2003] has reported that perceived credibility was the second predictor of internet banking acceptance in Taiwan. Several studies conducted in Malaysia and Bangladesh on internet banking acceptance have found significant direct effects on perceived credibility – behaviour intention relationship [Amin, 2007a; 2008]. Perceived

credibility was also found to have affected mobile banking and mobile phone credit cards acceptance [Amin et al., 2007 and Amin, 2008]. In this study, perceived credibility refers to taxpayers' assessment on the security and reliability to transact using *e-Bayaran* system. Thus, the following hypothesis is tested:

H₅: Taxpayers' intention to use *e-Bayaran* system is significantly affected by perceived credibility of the system.

2.3.5 Amount of Information (AOI)

Amount of information has also been reported to have influence the behavioural intention. According to Amin [2008] if a potential user has adequate and accurate information concerning the information system in question, there is possibility that he or she will accept the said system. The amount of information individuals have about technology or system in question has been identified as a major factor affecting the adoption of the technology [Pikkarainen et al., 2004]. According to Pikkarainen et al. [2004], Sathye in his study reported that low awareness of online banking services offered is a major factor that caused people not to adopt the said services. Thus, in this study, the researcher is interested to examine whether the amount of information about *e-Bayaran* system which is currently disseminated to the taxpayers did affect the taxpayers' intention to use the system.

A study by Pikkarainen et al. [2004] on acceptance of online banking application revealed that amount of information has positive impact on the use of online banking system statistically. Amin [2008] empirically tested the correlation between amount of information with the use of mobile phone credit cards and found positive effect between both constructs. This implies that if adequate amount of information received by the users about the system in question, it will increase the likelihood of accepting the system. Therefore, it is posited that the amount of information about the benefit and advantages of *e-Bayaran* system received by the taxpayers will affect their intention to use the system to pay for their income taxes. Thus, these arguments lead to the following hypothesis:

H₆: The amount of information the taxpayers have about *e-Bayaran* system will positively affected intention to use the system.

3. Methodology

This study used a survey instrument that was adapted and modified from Hung et al. [2006] and Amin [2008]. The six-page instrument was divided into three sections where the first section was specifically designed to collect demographic information about the respondents. The second section comprised of 29 multi-item questions to solicit taxpayers' perceptions on *e-Bayaran* system on seven constructs namely perceived usefulness, perceived ease of use, subjective norms, self-efficacy, perceived credibility, amount of information and intention to use. All items were measured on five-point Likert scale ranging from "strongly disagree" and "strongly agree" with a mid-point indicates "neither disagree nor agree".

The survey instrument was then distributed to the targeted respondents using Perseus Survey Solutions [Perseus], an online survey facility. Initial invitation emails were sent on 28 January 2009 to 1,000 selected email addresses to invite them to participate in the survey. A survey link is placed in the initial invitation email to enable the respondents to be connected to the survey and provide their responses

electronically. Assurance was given to the respondents on the premise that their responses will be treated with high confidentiality and cannot be associated with the respondents or their organizations in any way. The survey was conducted for a one month period from 28 January 2009 until 28 February 2009.

Out of 1,000 initial invitation sent to the respondents, 195 were returned by the servers as the intended recipient was either no longer a user of the particular Internet Service Provider (ISP) or the recipient's mailbox had exceeded its quota. Therefore, only 805 emails were successfully sent. A total of 326 responses were accumulated during the data collection period. However, only 246 responses were completed and can be used for further analysis. Summary of sample distribution and responses received is presented in Table 3.1.

Table 3.1: Summary of Sample Distribution and Responses Received

	Total
Initial invitation sent	1,000
Undelivered email addresses	195
Delivered email addresses	805
Responses	326
Final sample/ Usable responses	246

Complete responses received were then tested for non-response bias. Non-response bias occurs when the responses of participants differ in some systematic way from the responses of non-participants. This usually happens when the researcher is unsuccessful in encouraging the respondents to participate [Cooper & Schindler, 2006]. Based on the t-test conducted on 30 early and 30 last respondents as suggested by Armstrong and Overton [1977], there was no significant difference between both groups. Thus, non-response bias was not a serious problem in this study.

4. Analysis and Results

Cronbach's Alpha values are used to assess the reliability of the items in each constructs. All items measuring seven constructs demonstrate good internal consistencies since all Cronbach's Alpha values exceed the recommended value of .80 [Sekaran , 2003].

Two Multiple Regression analyses are conducted separately to test six hypotheses developed in this study. Multiple Regression analysis against intention to use is conducted to test five hypotheses while Simple Regression analysis is conducted to test the influence of perceived ease of use of *e-Bayaran* system on perceived usefulness of the system.

Table 4.1: Regression Analysis against Intention to Use

Independent variable	Coefficients		t value	Sig.
	Unstandardize d (β)	Standardized (B)		
PU	0.265	0.266	2.968**	.004
PEOU	0.060	0.069	0.795	.428
SN	0.270	0.350	4.644**	.000
SE	0.269	0.307	2.978**	.004
PC	-0.128	-0.163	-1.597	.113
AOI	0.124	0.134	1.644	.103
R ²	0.524			
Adjusted R ²	0.498			
F Value	20.331**			

Dependent variable: Intention to use (INT)

Note: Perceived usefulness (PU); Perceived ease of use (PEOU); Subjective norms (SN); Self-efficacy (SE); Perceived credibility (PC); and Amount of information (AOI)

* denotes significance at $p < 0.05$; ** denotes significance at $p < 0.01$ level

Table 4.1 indicates that a total of 52.4% ($R^2=0.524$) of the variance in intention to use *e-Bayaran* system is contributed by perceived usefulness, perceived ease of use, subjective norms, self-efficacy and amount of information of the system. Out of six independent variables, only perceived usefulness, subjective norms and self-efficacy are found to have significant effect on intention to use *e-Bayaran* system ($p < 0.01$). Perceived ease of use, perceived credibility and amount of information are found to have no significant influence on taxpayers' intention to use the system ($p > 0.05$). This result gives support to H_3 and H_4 but partially supported H_1 . However, this result does not substantiate H_5 and H_6 .

Table 4.2: Regression Analysis against Perceived Usefulness

Independent variable	Coefficients		t value	Sig.
	Unstandardize d (β)	Standardized (B)		
PEOU	0.465	0.533	9.851**	.000
R ²	0.285			
Adjusted R ²	0.282			
F Value	97.049**			

Dependent variable: Perceived Usefulness (PU)

Note: Perceived ease of use (PEOU)

** denotes significance at $p < 0.01$ level

Table 4.2 reveals that perceived usefulness of *e-Bayaran* system is significantly affected by perceived ease of use of the system ($p < 0.01$) where it explains 28.5% of the variation in perceived usefulness of the said system. Thus, H_2 is substantiated.

5. Discussions and Recommendations

The primary objective of this study is to identify factors affecting taxpayers' acceptance of online tax payment system in Malaysia. In present study, online tax payment system refers to *e-Bayaran* system which has been introduced in 2007 to facilitate the taxpayers to pay their income taxes electronically via IRBM website. Taxpayers' acceptance of *e-Bayaran* system is measured by their intention to use the system to pay for income tax payments. Six factors namely perceived usefulness, perceived ease of use, subjective norms, self-efficacy; perceived credibility and amount of information are assumed to have affected taxpayers' intention to use *e-Bayaran* system. Regression result shows these six factors explained 52.4% of variance in intention to use. Among those factors, only perceived usefulness, subjective norms and self-efficacy are found to be significant predictors of taxpayers' behavioural intention to use *e-Bayaran* system. Perceived ease of use, perceived credibility and amount of information show no significant influence on intention to use the said system.

Significant relationship between perceived usefulness and intention to use, found in this study uniforms with the results reported by many studies [Davis et al., 1989; Wang et al., 2003; Ramayah et al., 2005; Amin, 2007b, 2008; Amin et al., 2007; Jahangir & Begum, 2008]. This result indicates that when a system is perceived as useful, then intention to use it will increase. This finding refers to the fact that taxpayers use *e-Bayaran* system for benefits that it provides in comparison to other tax payment channels. In other words, if taxpayers are aware on the benefits of using the *e-Bayaran* system, they will likely use the system to pay for their income taxes.

Subjective norms is found to be the strongest predictor of taxpayers' intention to use *e-Bayaran* system among the study variables. This result concurs with the study conducted by Venkatesh and Davis [2000] where they reported subjective norms did have significant effect on behaviour intention. Similar result was also reported by Amin [2007a]. Positive significant effect between subjective norms and behaviour intention in present study indicates that Malaysians tend to listen to other people perceptions and experiences before performing tasks in new technologies. Since the existence of *e-Bayaran* system in the community is relatively new, taxpayers need other people opinions about the system before deciding to use the said system.

Self-efficacy is also found to have significant influence on taxpayers' intention to use *e-Bayaran* system. This result corresponds with the results reported by Ramayah and Aafaqi [2004] and Amin et al. [2007]. The positive effect of self-efficacy on behaviour intention reveals that the higher taxpayer' self-efficacy in information system, the greater their intention to use *e-Bayaran* system. This result also shows that if the process of using *e-Bayaran* system is similar to other systems that are currently being used by the taxpayers in their routine activities, they will probably use it because of their familiarity with the system.

Perceived ease of use, perceived credibility and amount of information are found to have no significant influence on taxpayers' intention to use *e-Bayaran* system. The insignificant relationship between perceived ease of use and intention to use indicates that an easier system does not necessarily create a greater intention to use the system. This finding does not correspond with the results reported by Wang et al. [2003], Amin [2007b], Amin et al. [2007]. This result reveals even though *e-Bayaran* system is an easy to use system, this feature does not necessarily will increase taxpayers' acceptance of the said system. However perceived ease of use is found to have significant effect on perceived usefulness of *e-Bayaran* system. Consistent with most

prior research [Davis, 1989; Davis et al., 1989; Venkatesh et al., 2000, Pikkarainen et al., 2004; Amin, 2008 and Chung, 2008], this finding indicates that an easier system will be perceived as a useful system. Thus, *e-Bayaran* system will be perceived as a useful system if it is easy to operate.

Perceived credibility is also found to have no significant influence with intention to use *e-Bayaran* system. This result does not concur with Wang et al. [2003]. They found positive impact of perceived credibility on internet banking acceptance. Possible explanation for this contradictory result is that the transactions made through *e-Bayaran* system are forwarded to the respective internet banking websites via financial processing exchange (FPX) system. Therefore, *e-Bayaran* system is assumed to be associated with internet banking websites. Since the reliability and security of internet banking facilities is not disputed, then the credibility of *e-Bayaran* system is also not questionable. Thus, credibility is not perceived as an important factor for taxpayers to transact using *e-Bayaran* system.

Amount of information also found to insignificant predictor of taxpayers' acceptance of *e-Bayaran* system. Contrary to the result reported by Pikkarainen et al. [2004], this finding indicates that amount of information on *e-Bayaran* system does not affect taxpayers' intention to use the system. This insignificant result might be due to the current situation where the promotion on *e-Bayaran* system is not widely publicized by IRBM.

Several recommendations are proposed to the tax authority in order to enhance the present *e-Bayaran* system. Firstly, it is suggested that the tax authority provide confirmation once the transactions made through *e-Bayaran* system are successfully updated into the taxpayers' income tax account. This confirmation can be distributed through email to the taxpayers' mailboxes. By giving this confirmation, the taxpayers will feel confident that their transactions are safely and accurately posted to their tax account. Secondly, it is recommended that taxpayers be given online access to their tax account. Again, this online access will ensure that the taxpayers can check their transactions and balances on real-time basis so that they are assured on the accuracy and reliability of the transactions conducted through *e-Bayaran* system. Thirdly, the tax authority should provide online assistance to help taxpayers who have difficulties in using the *e-Bayaran* system to pay for their income taxes. Besides that, a more comprehensive user manual should be provided by the tax authority to ensure the first time users will have general overview on how to use *e-Bayaran* system. Finally, more information on how *e-Bayaran* system will benefit the taxpayers should be disseminated in the community. All recommendations provided in the aforementioned paragraphs will increase the perceived usefulness of *e-Bayaran* system and simultaneously will increase taxpayers' acceptance of the system. Accordingly, more taxpayers will be using *e-Bayaran* system to pay their income taxes.

6. Limitations and Future Study

Similar to most empirical research, this study is not without limitations. The present study faces three limitations. The first limitation concerns the sample. The respondents in this study are chosen from ten selected cities in Malaysia. The e-filers in these cities might have different perceptions on *e-Bayaran* system from those who are not selected. For example e-filers from the rural area might perceive *e-Bayaran* system differently from those who are in the urban area. Thus, the present findings may be limited to the specific locations. However, this limitation is not a serious limitation as the sample was derived from 47% of the total e-filers in 2007.

Secondly, this study uses cross-sectional design where the data was collected at a particular point of time. As users' perception and intention can change overtime, the causal relationship found in present findings cannot be inferred [Lee et al., 2003].

The last limitation is low explanatory power reported in the present study. Only six variables namely perceived usefulness, perceived ease of use, subjective norms, self-efficacy, perceived credibility and amount of information, are included in present study. These six variables contribute only 52.4% of the total variance in taxpayers' intention to use *e-Bayaran* system. The rest of 47.6% remains unexplained. Other variables such as system design and users' experience are believed to have some roles in explaining taxpayers' acceptance of *e-Bayaran* system. Hence, there may be a need to search for additional variables that will improve the ability to predict *e-Bayaran* acceptance more accurately.

These limitations pave the way for future research. This study is a starting point in evaluating users' acceptance of online tax payment system in Malaysia. This area is still under-researched especially related to electronic services offered by the government agencies to their clients. Therefore, additional research is needed to provide better understanding on users' acceptance of electronic services in Malaysia. Firstly, it is suggested that future research should be expanded to taxpayers in other locations especially to those in rural area, to identify their acceptance of *e-Bayaran* system. Secondly, future research should focus on longitudinal analysis in order to strengthen the causal inferences found in present study. Lastly, the present finding shows about 47.6% of the variation in intention to use the *e-Bayaran* system remains unexplained. Therefore, it is recommended that other variables should be included in future research to better explain the intention to use the said system. Variables such as system characteristics, result demonstrability and image are reported to have some effect on intention behaviour and may increase the explained variance of taxpayers' acceptance of online tax payment in Malaysia.

7. Conclusion

This study provides some evidence on factors that contribute to acceptance of online tax payment system in Malaysia. Notably, perceived usefulness, subjective norms and self-efficacy are found to be significant determinants of taxpayers' acceptance of *e-Bayaran* system while perceived ease of use, perceived credibility and amount of information are found to have no significant influence on intention to use of the said system. However, perceived ease of use of *e-Bayaran* system did significantly affect perceived usefulness of *e-Bayaran* system which indicates that perceived ease of use indirectly affected taxpayers' acceptance of *e-Bayaran* system. Thus, important acceptance factors of online tax payment system should be exploited wisely by the system provider in order to ensure the success of the said technology in Malaysia.

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