

CHAPTER 3: RESEARCH METHODOLOGY

3.1. Research Hypotheses & Framework

Although many studies had concentrated on the usefulness, ease of use and risk of electronic payment in various sectors but there not much studies being done on electronic payment for tax purposes. Fu, Farn and Chao (2005) try focus the same but for electronic filing of tax. They have conducted a survey on acceptance of electronic tax filing to study taxpayers' intentions towards the eTax system in China which concluded that the effect of Perceived Behavioral Control (PBC) may depend on the taxpayers' past usage experience. Comparison between manual and electronic taxpayers shows that it is important to recognize that BI was largely driven by perceived usefulness (PU) while compatibility (CMP) represented the second largest determinant of Behavioral intentions (BI).

Therefore, for this study, hypotheses were carried out based on framework that has been analysed by past researchers. The result of study carried out by Fu, Farn and Chao (2005) was being replicated in Malaysian perspectives. They found that Perceived usefulness (PU) represented as the largest determinant towards Behavioral intentions (BI) and Compatibility (CMP) become the second determinant. Therefore, the same direction of survey was done in order to investigate the behavioral intention of taxpayers in Malaysia. The research framework can be summarized as in Figure 4 below.

PU refers to the prospective user's subjective likelihood that the use of a certain application will increase his or her performance. Davis (1989) has stated that PU was found to have a strong influence on people's intentions. However, Chang et al.(2005) study has found that PU has no direct impact on BI but has significant on attitude, which consequently has an impact on BI of using the system. PU is defined as the degree of taxpayers' believes from using internet tax payment system that would enhance their tax payment transaction and the measurement adapted from Davis (1989).

According to Ajzen's Theory of Reasoned Action (TRA), attitude toward the behavior refers to a person's positive and negative beliefs in performing the behavior. The attitude toward using internet should be an important predictor of e-payment usage behaviors. Using the system is connected with the effectiveness of the system. Systems that users regard as useless cannot be effective. Therefore it is important to find out the reasons why people decide to use or not to use ie-payment system. This knowledge will help both systems designers and developers in their work (Mathieson, 1991).

From the questionnaire, the questions do highlight on the usefulness of the e-payment method. For example; "E-payment method gives much benefit to me", "Using e-payment method will speed up the tax payment method", "The advantages of e-payment outweigh the disadvantages" and "Overall, in using e-

payment method is advantageous". The degree of respondents' agreement or disagreement on the statement will prove the first hypothesis.

H1: Perceived Usefulness (PU) of e-payment method has a significant effect on Behavioral Intention (BI) of taxpayers

PEOU was defined as the degree to which the prospective user expects the potential system to be free of effort and was measured (Davis et al., 1989). In Davis (1989), perceived ease of use which test to had a smaller but significant affect that subsided over time. According to Chang et al., (2005), perceived ease of use also found to have a significant impact on attitude, thus affects behavior intentions.

There is empirical evidence that has accumulated over a decade that suggest PEOU is positively linked to BI to adopt internet payment, both directly and indirectly via its impact on perceived usefulness (Davis, Bagozzi & Warshaw, 1989; Venkatesh, 1999; Venkatesh & Davis, 2000; Chan & Lu, 2004). Past researches (Davis, 1989; Mathieson, 1991; Adams et al.,1992; Segars & Grover, 1993, Igbaria et al. 1995; Ndubisi et al., 2001; Ramayah et al., 2002; Ramayah et al., 2003a; Ramayah et al., 2003b; Ramayah and Aafaqi, 2004) has shown that perceived usefulness influences usage directly. Also in general, a system or technology that is perceived to be easy to use or learn would be anticipated to be more useful to the user. This notion was first supported by Davis, Bagozzi and

Warshaw (1989) and again justified through many empirical tests (e.g. Mathieson, 1991; Chau, 2001; Ramayah et al, 2003a; Ramayah et al., 2003b; Ramayah and Aafaqi, 2004) that followed.

The questionnaire, do highlight on the ease of use of the e-payment method. For example; “Learning to use e-payment method is easy for me”, “I find e-payment method is easy to use”, “It is not easy to me to be skillful in using e payment method”, “It is easy for me to input and modify data when I use e-payment method”, “Instructions for using e-payment method will be easy to follow” and “My interaction with e-payment method is clear and understandable”. The degree of respondents’ agreement or disagreement on the statement will prove the second hypothesis.

H2: Perceived Ease of Use (PEOU) of e-payment method has a significant effect on Behavioral Intention (BI) of taxpayers

CMP was defined as the degree to which the technology fits the potential adopter’s previous experience, work practice and needs. It serves as an antecedent of PU and PEOU and identified as an essential factor for innovation adoption (Rogers, 1985). Prior researchers have reported that CMP gives significant effect on the user technology acceptance and also on PU and PEOU. Fu, Farn and Chao (2005) also found that CMP becomes the second largest determinant that affects taxpayers’ intention towards e-Tax.

The questionnaire also highlights questions on the compatibility that affect the usage of e-payment method. For example; “Using the e-payment method will fit well with the way I work”, “Using the e-payment method will fit into my work style” and “Using the e-payment method will fit well with the way I live”. The degree of respondents’ agreement or disagreement on the statement will prove the third hypothesis.

H3: Compatibility (CMP) of e-payment method significantly affects Behavioral Intention (BI) of taxpayers

Besides risk of using e-payment system, closest friends, family or peers are likely to have influence on taxpayers’ acceptance in using the e-payment method. For instance, if a close friend suggests that a particular system (e-payment) might be useful, a person may come to believe that it actually is useful, and in turn form an intention to use it. Subjective norms are the perceptions of people important to individuals regarding them in performing the behaviors in question. Organizational behaviorists find that informal social controls (peer influences) are more effective in controlling individual behaviors than law. It is reasonable to assume that taxpayers who are influenced by social norms are less likely to use the e-payment method.

Moore and Benbasat (1991) define image as the degree to which use of an innovation is perceived to enhance one’s status in one’s social system (Chan &

Lu, 2004). The increased power and influence resulting from elevated status provides a general basis for intention to use greater productivity. An individual may thus perceive that using such a system will lead to improvements in his/her job performance indirectly due to system use (Chan & Lu, 2004). The identification effect is captured in improved TAM by the effect of SN on BI, and coupled with the effect of SN on PU (Chan & Lu, 2004). Venkatesh and Davis (2000) extended the original TAM by introducing the second generation of the model labelled TAM2 to explain how subjective norms and cognitive instrumental processes affect perceived usefulness and intentions

The questionnaire also highlights questions on the subjective norm that affect towards the e-payment method. For example; "People who influence my behavior would think that I should use the e-payment method" and "People who are important to me would think that I should use the e-payment method". The degree of respondents' agreement or disagreement on the statement will prove the forth hypothesis.

H4: Subjective Norm (SN) of e-payment method significantly affects Behavioral Intention (BI) of taxpayers

In the past, PR was primarily regarded as fraud and product quality that refers to certain types of financial, product performance, social, psychological, physical, or time risks when consumers make transactions online (Forsythe and Shi, 2003). It

has been tested with TAM in numerous studies in understanding consumer behaviour towards adoption of online shopping (Bhatnagar et al., 2000; Gefen and Straub, 2003; Kamarulzaman, 2007). However there is very limited application found in e-payment studies.

PR can be measured by overall risk. Overall risk happens when all criteria are evaluated together. First, performance risk means the possibility of the product malfunctioning and not performing as it was designed and advertised and therefore failing to deliver the desired benefits (Grewal et al., 1994). Financial risk means the potential monetary outlay associated with the initial purchase price as well as the subsequent maintenance cost of the product. Time risk means consumers may lose time when making a bad purchasing decision by wasting time researching and making the purchase, learning how to use a product or service only to have to replace it if it does not perform to expectations. Psychological risk means potential loss of self-esteem and ego frustration based on feelings about oneself. Social risk means potential loss of status in one's social group as a result of adopting a product or service, looking foolish or untrendy. Privacy risk means potential loss of control over personal information, such as when information about you is used without your knowledge or permission.

The importance of security and privacy to the acceptance of online banking has been noted in many banking studies (Roboff and Charles, 1998; Sathye, 1999;

Hamlet and Strube, 2000; Tan and Teo, 2000; Polatoglu and Ekin, 2001; Black et al., 2002; Giglio, 2002; Howcroft et al., 2002). Roboff and Charles (1998) found that people have a weak understanding of online banking security risks although they are aware of the risks. Furthermore, they found that consumers often rely that their bank is more concerned about privacy issues and protect them. According to many studies (e.g. Westin and Maurici, 1998; Cranor et al., 1999) privacy issues have proven important barriers to the use of online services. Many people view that electronic payment as a risk undertaking because they believe that using internet application is lack of security and privacy. Therefore, it is expected that only individual who perceived using internet payment as a low risk undertaking would have a tendency to perceive it as useful (Chan & Lu, 2004). Perceived risk can also be defined as perceived security is derived from, among other things, the level of security provided by the technology, together with how it is marketed. If the system can offer acceptable answers on issues of authorisation, authentication, privacy, integrity, procedure if value units are stolen, and procedures to deal with error transactions, then a high level of technological security will be the result.

The questionnaire also highlights questions on the risk towards the e-payment method. For example; "Use of e-payment method may cause my personal income tax information to be stolen", "I feel uneasy psychologically if I use e-payment method" and "I do not think it is safe to use e-payment method because

of the privacy and security concern". The degree of respondents' agreement or disagreement on the statement will prove the fifth hypothesis.

H5: Perceived Risk (PR) of e-payment method has a direct effect on Behavioral Intention (BI) of taxpayers

SE can be defined as an internal notion of individual's perception of the presence or absence of resources or opportunities necessary for performing an action (Triandis, 1997). It is related to perceived ability. Fu, Farn and Chao (2005) anticipate that higher level of SE would lead to higher level of BI. It has been noted that users' attitudes towards and acceptance of a new system have a critical impact on successful system adoption (Davis, 1989; Venkatesh and Davis, 1996; Succi and Walter, 1999). If users are not willing to accept the system, it will not bring full benefits to the organization (Davis, 1993; Davis and Venkatesh, 1996). The more accepting of a new system the users are, the more willing they are to make changes in their practices and use their time and effort to actually start using the new system (Succi and Walter, 1999).

The questionnaire also highlights questions on the efficacy towards the e-payment method. For example; "I would feel comfortable using the e-payment method on my own", "If I wanted to, I could easily operate any of the equipment to use the e-payment method on my own" and "I would be able to use the e-payment method even if there was no one around to show me how to use it". The

degree of respondents' agreement or disagreement on the statement will prove the sixth hypothesis.

H6: Self Efficacy (SE) of e-payment method has a direct effect on Behavioral Intention (BI) of taxpayers

Apart from security, of course, access conditions are also crucial to winning acceptance. Special hardware and software system requirements, laborious registration processes, or menus that require long practice to navigate successfully can all hinder acceptance of a procedure. Special system requirements are a knockout criterion, purely because quite a lot of online purchases are made at work using an office computer to which the user has only limited administration rights. Moreover, convenience depends on transmission speeds and settlement procedures. The prospect of slow, unstable connections impedes acceptance. Ultimately, convenience demands a system that is flexible from a technological, economic and geographical perspective. Solutions capable of conducting both online and offline transactions, which can be used with different media (portability), are solutions with healthy prospects.

RFC can be defined as an external resource constraint on individual perception of the presence or absence of resources or opportunities necessary for performing an action (Triandis, 1997). The absence of facilitating resources results in barriers to usage which may inhibit usage (Fu, Farn and Chao,

2005). The questionnaire also highlights questions on the resources that facilitate the usage of e-payment method. For example; “There will not be enough computers and network equipment for me to use the e-payment method”, “Using the e-payment method will be too expensive for me” and “I cannot find appropriate computer equipment when I want to use e-payment method for paying my tax liability”. The degree of respondents’ agreement or disagreement on the statement will prove the seventh hypothesis.

H7: Resource Facilitating Conditions (RFC) of e-payment method significantly affects Behavioral Intention (BI) of taxpayers

Venkatesh et al (2003) defined Facilitating Conditions as “the degree to which an individual believes that an organisational and technical infrastructure exists to support the use of the system”. The facilitating condition construct was added as a direct determinant of BI and usage in the Theory of Perceived Behavior (TPB). Studies have shown that Facilitating Conditions construct was not significant enough to predict intention, however, was found significant in determining usage. Moreover, a study of Taylor and Todd (1995b) demonstrated that the presence of facilitating conditions do not necessarily encourage usage. It has been hinted that the absence of facilitating resources may represent an obstacle to usage and thus prevents the creation of intention to usage. Facilitating Conditions as a construct has not been widely studied. It is being predicted that its impact as a direct determinant of usage will be revealing and needs to be investigated

The questionnaire also highlights questions on the technology that facilitate the usage of e-payment method. For example; “It is easy for me to get support if I need help when I have problems using computers or internet at work” and “It is easy for me to get support if I need help when I have problems using computers or internet at home”. The degree of respondents’ agreement or disagreement on the statement will prove the last hypothesis.

H8: Technology Facilitating Conditions (TFC) of e-payment method significantly affects Behavioral Intention (BI) of taxpayers

3.2 Selection of Measure

The measure used for this study in order to get the right view of the existing level of acceptance of e-payment method for tax purposes in Malaysia focuses on the use of a survey instrument that mostly cover the group of people who are employed. The primary objective of this paper is to survey on the behavioral intentions amongst Malaysian taxpayers towards e-payment system. To achieve this research objective, the methodology employed was by way of a survey on Malaysian taxpayers

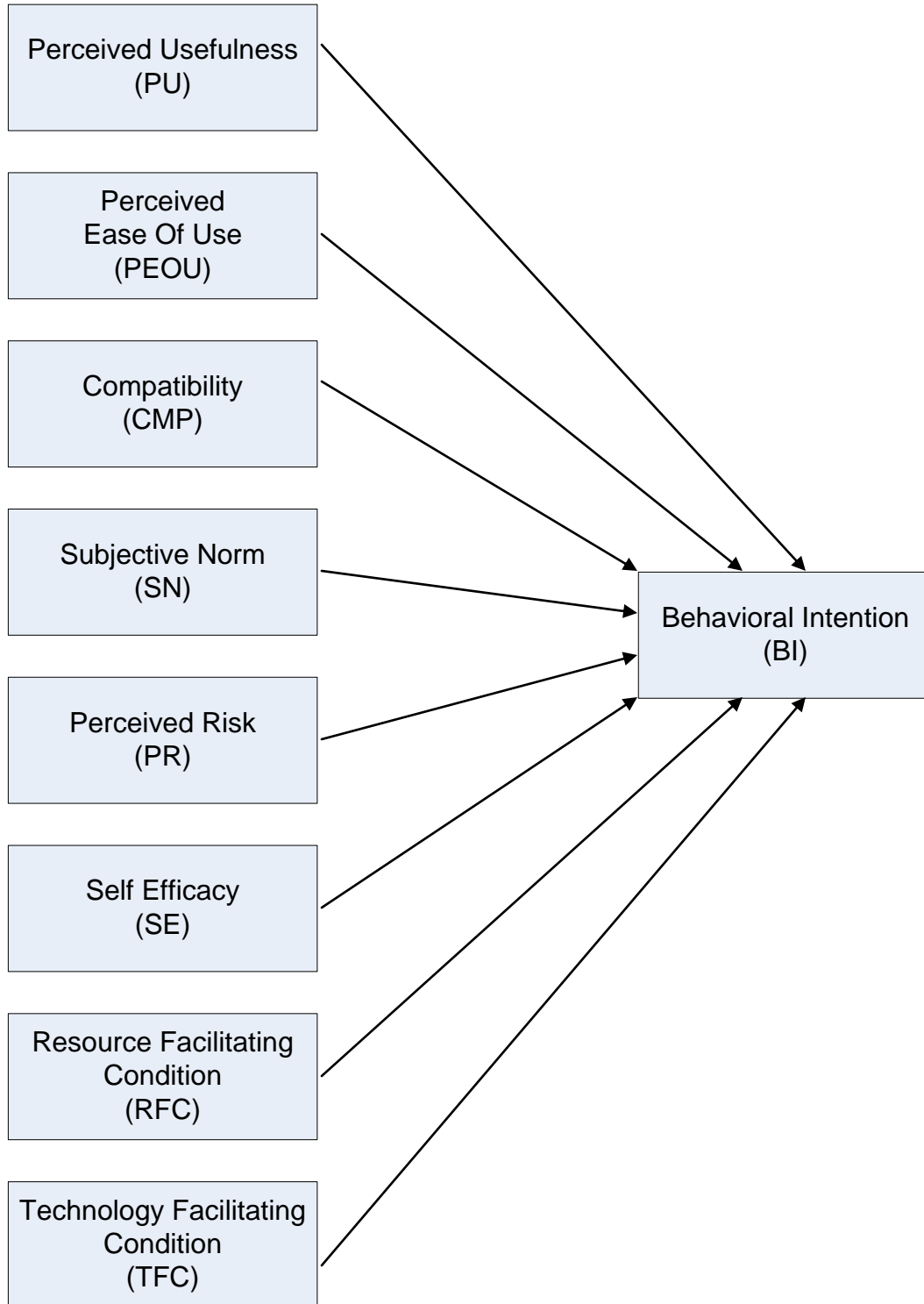


Figure 4: Research Framework

3.3 Research Questionnaire Design

The research methodology used for this assignment in order to achieve this research objective, was by way of a survey on Malaysian taxpayers. An exploratory study was chosen and data were gathered through questionnaires and also information from interview and trusted documents gathered from IRBM officers while doing field study. Primary data were collected through survey. A total of 300 questionnaires were distributed to the taxpayers whether they use the e-payment method or not for this study.

The survey instrument used was a 3 page questionnaires (Appendix 1) which was designed to measure the acceptance level of taxpayers towards e-payment for tax purpose. It was divided into 2 sections. Section 1 consisted of 14 items regarding the samples' demographic information and personal data of the sample taken which were asked to mark the relevant particulars. Section 2 consisted of 29 items that focus on the taxpayer's view on the usage of e-payment method for tax purpose. In the later part, samples were asked to indicate their agreement on all items using five point likert scale ranging from strongly agree to strongly disagree.

3.4 Sampling Design

In studying the acceptance of e-payment system taxpayers, it is more suited to use taxpayers themselves as samples. Most working adults: employees, professionals, businessmen, etc have their own income which is taxable and basically have to declare to the Inland Revenue Board (IRB) every year. Sample size plays an important role in determining the accuracy of hypothesis testing (Christensen, 2004). Hence, sample size must be determined based on the research design and data variety (Kraemer & Thiemann, 1987). Usually, a research may require more than two samples, but it is impractical and not beneficial if too many samples are involved.

The sampling procedures taken in this assignment are by using survey given to the public. The procedures use is basically to reach a big group of samples from different sectors. The survey was conducted on a group of 300 existing taxpayers. Most respondents are taxpayers that use the e-filing services counter open daily at the IRBM braches. Focus was at the Jalan Duta, Kg Attap, Cheras and Shah Alam Branch. The questionnaire also being distributed through electronic mail to relative and friend in order to get more feedback and view on the topic highlighted.

3.5 Data Collection Procedure

The relevant data was collected using the survey method over a period of 2 weeks. For the purpose of the assignment, 300 questionnaires were distributed to 300 individual samples which were randomly selected from the sample above. The focus was on taxable taxpayers that either uses the manual/traditional payment method or electronic payment method in their tax settlement. The questionnaires were distributed by electronic mail and by hand through family, friends and people that close or related to and were collected personally, due to time constraint, since I am a part time student and a full time employed staff.

The methodology used for this research was a direct and internet-based field survey. During the data collection phase, e-mails were sent directly to the targeted population asking them to complete the questionnaire. The e-mail emphasized the importance and confidentiality of the research. This field study is also supported by the members of the faculty, university's staff and also the IRBM itself. As a token, every respondent were given a pen to answer the questionnaire and also for their own future usage.

The advantages of using the survey method as listed by Ahmad Mahdzan (1997) are each sample is given the same questions in the same sequence thus allowing the researcher to compare one respondent to another or one group of respondents to another, standardised questionnaires expedite data gathering

process and ensure the quality of data gathered and allows easy data processing. From the exercise, total of 179 respondents were gathered from both manually and electronically. I am able to collect 90 respondents from the questionnaires distributed by hand and additional of 89 respondents through electronic mail.

3.6. Data Analysis Technique

Both qualitative and quantitative analysis approach will be use to determine the acceptance of e-payment amongst taxpayers in paying tax. Findings from survey and questionnaire from public of different sectors will be analyzed in order to come out with practical guidance and suggestion for the benefits of all parties involve. Feedback from respondents and research from previous publications on the same issue will be use as reference for this case study.

The data analysis use in this survey is by using reliability, multiple regression, t-test and ANOVA. The feedback that group into different category whether they agree or disagree on the statement given in the questionnaires will be analysed accordingly. The numbers of same feedback are grouped together and the percentage is calculated and shown as the summary of survey attach in the Appendix of the assignment.