

MKM227 Postgraduate Dissertation

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Consumer Attitude and Subject Norm Influence towards Online Banking Behaviour: The Malaysian Context

A dissertation submitted in partial fulfilment of the requirements of the Royal Docks Business School, University of East London for the degree of **MBA International Business**

May 2014

14,664 words

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Abstract

The research examines the correlation between consumer attitude and subject norm influence towards online banking behaviour in Malaysia. The main theory discussed in the research is the Fishbein's model: the theory of reasoned action. Subject norm is derived from the theory and are widely used in this research. A quantitative survey dealing with facts and figures are used in the research. Consequently, a self-administered questionnaire is distributed among online banking users in Malaysia and 103 responses are collected out of the two weeks frame. Data findings using the SPSS 20 software by using the regression and correlation methods proved the positive relationship consumer attitude and subjected norm towards online banking possessed. To bring the research to a further altitude, a factor analysis is done to indicate components in consumer attitude towards online banking. The components found are: perceived security and privacy, accessibility, convenience and risk. Cultural aspects are investigated briefly to relate to the online banking behaviour in Malaysia. Hofstede scores are used and the comparison of the scores and cultural factor towards online banking behaviour were elaborated in the study. There is a positive relationship between consumer attitude and subject norm influence towards online banking behaviour in Malaysia. The research is relatively new investigating a niche market, future research can be done to elaborate further on the consumer and subject norm aspect and online banking practitioners can benefit from the facts and figures in the study to strategize the marketing aspect of online banking.

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List of Abbreviations

RO.....Research Objective

KMO.....Kaiser-Meyer-Olkin

αCronbach's Alpha

TRA.....Theory of Reasoned Action

Chapter 1

Introduction

The introduction chapter will introduce the research topped with the relevance of the research. A general statement will be provided pertaining the problem needs to be solved and ways of conduct in the research with brief explanation of each chapter in this research project.

1.1 Research Relevance and Research Question

As information technology becomes more and more sophisticated, banks in many parts of the world are adopting a multiple-channel strategy (Wan et al., 2005). Since the mid-1990s, there has been a fundamental shift in banking delivery channels toward using self-service channels such as online banking services (Pikkarainen et al., 2004). Due to the potential that online banking brings towards banks, business and retail consumers, online banking subject deserves special attention from financial institutions, policy-makers, researchers, and academicians (Akinci et al., 2004).

Malaysia is chosen as a country towards online banking as survey shows that Malaysia has the most users of online banking services in Southeast Asia (Ng, 2011) with 14.3 million users as of June 2013, that make up to 49.1% rate of penetration in the population (The Star Online, 2013). The Deputy Finance Minister added that in terms of growth, online banking has the potential to generate savings of about 1% gross domestic product annually (The Star Online, 2013).

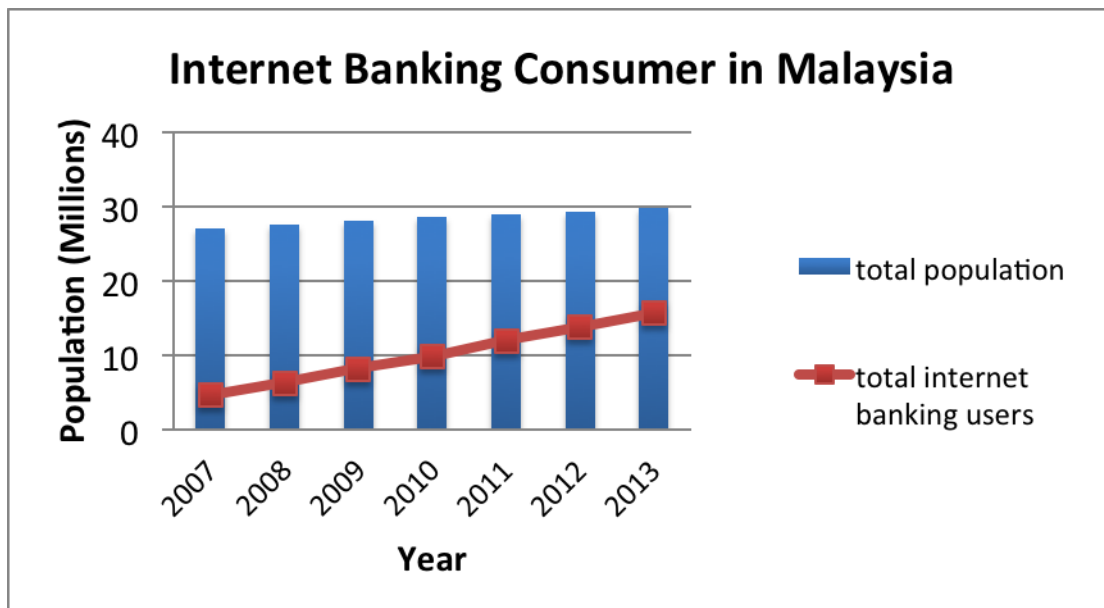


Figure 1: Internet banking users in Malaysia (Central Bank of Malaysia, 2013).

According to the statistics by the Central Bank of Malaysia (2013), the population rose from the previous 27.1 million people to 29.7 million people. The users of Internet or online banking have increased steadily with the total penetration of 52.2% (15.6 million) users by the end of December 2013 (Central Bank of Malaysia, 2013). The penetration of online banking raised so much throughout the year shows the significance online banking brings to each Malaysian in their daily lives. The lifestyle of consumer in Malaysia has changed in accordance to the internet advancement in the country and the multimedia super corridors (MSC) project in Putrajaya, Malaysia, and more online potential has developed ever since (Poon, 2008).

Internet has gone beyond borders, as Internet retailers now are not subjected to constraints. They can attract consumers over a wide geographic area; physically separated consumers can easily use the same Internet retailing service (Choi et al., 2010). In the banking world, the development of information technology brings enormous advantages in the development of an easier way of payment with more handy interfaces (Akinci et al., 2004).

Online banking shows importance in the lives of Malaysian and the research made on online banking in the Malaysian population has been around. The Malaysian banking adoption survey by Poon (2008) and Hong et al. (2013) shows that security, privacy, experience, and users facilities brings influence in the adoption of online banking in Malaysia. Consumer behaviour studies have always been around as well. In consumer behaviour field of study, attitude is considered as the most important concept as it is the direct determinant of behaviour (Veronika, 2013). Several streams of research on online behaviour emerge in the last decade as suggested by Sakarya and Soyer (2013). For instance, main factors influence the adoption of online purchase; affective, cognitive and behavioural motives for online purchases and the consumer experience on online behaviour.

As attitude is measured, the research will focus about the variable in the attitude that goes in line with the theory of reasoned action to identify the correlation in between variables on the Malaysian online banking behaviour. Since many researchers research the influence towards adoption and acceptance of online banking in Malaysia in a very general term, there is a gap whereby the concept on consumer attitude in their affection, belief and cognition in regard to the theory of reasoned action has not been explored. Wan et al. (2005) stated that

the adoption of online banking is positively linked to the positive beliefs of the subject that go in accordance to the theory of reasoned action (Ajzen, 1988, Ajzen and Fishbein, 1980). Belief, affection and cognition will be measured to find out the influence towards them and the effect towards the consumer towards online banking. Thus, the main research objective of the research is:

What is the correlation between the Malaysian consumer attitude and subjected influence towards online banking behaviour?

1.2 Research Objectives

In regard to the research question, a few research objectives are formulated to answer to the research question. The research objectives are:

RO1: To critically evaluate and elaborate the aspects in consumer attitude and the relationship towards online banking behaviour.

RO2: To determine the factors under consumer attitude and rectify the correlation between them towards online banking behaviour.

RO3: To investigate the relationship between consumer attitude with the subjected influenced theory and the correlation towards the Malaysian online banking behaviour.

1.3 Research Subject

The research section are divided into five different groups consist of critical literature review, methodology, data analysis, conclusion and recommendation.

The critical literature review chapter will discuss on the literature obtained from past research towards the topic. The main literatures that will be argued are consumer attitude, online banking and the theory of reasoned action. As the investigation of online banking behaviour involve the Fishbein's model, more aspect of consumer behaviour and attitude are taken account on rather that the surface of the model which was stated above. The in-depth study of the extended model in relation to online banking behaviour will be studied that includes the diffusion of consumer attitude concept to further justify and explain the model as the study by Shih and Fang (2004) postulates on the basis of the theory of reasoned action and that the adoption on online banking is determined by three factors namely attitude, subjective norm and perceived behavioural control. In relation to the aspect of consumer attitude and the subject norm in the theory of reasoned action, the questionnaire and hypotheses will be formed based on the theory in Fishbein's model. Several hypotheses will then be generated towards the literature to meet up to the research objective stated previously. The hypotheses formed will be survey upon in the next chapter.

Next, the methodology chapter will discuss on the analysis towards the topic discussed to gain answer for the hypothesis. Various type of analysis was identified here regarding the method used to search for the answer for the hypothesis that formed from the previous chapter. The research will be done based on primary data with the use of a questionnaire. A summarized form of methods along with the derived hypotheses will be explained in the chapter.

The forth chapter shows the data analysis and findings of the research gained from the primary data: questionnaire. A critical analysis is done in line with the literature gain to test the validity of the hypothesis generated earlier in the chapter to meet up to the expectations of the research objectives and answer the main research question. A clear report of the analysis is written to show the subject tested and the result obtained.

A conclusion will be generated after to summarise the research project in a whole to reflect upon the research question and the answer developed from the findings of the research. A summary will be made upon the whole research project and bring the research to a close.

Last but not least, a recommendations chapter will continue to provide recommendations made on the basis of the findings of the study. There will be appropriate recommendation that will be presented to both different parties: the first one will provide recommendations for the scholars to encourage further in-depth study into other aspects of the research in the context of Malaysian consumer attitude in online banking behaviour, and the next one will be directed to the managerial level personnel in the banking industry.

1.4 Chapter Reflection

The introduction chapter stated a step-by-step guide in the research to attain a clearer view for the readers on this research. The research will start on the next chapter with a critical literature review that will answer the main research question of this research, which is:

What is the correlation between the Malaysian consumer attitude and subjected influence towards online banking behaviour?

Chapter 2

Critical Literature Review

This chapter will discuss on past research and argument related to consumer attitude and online banking in Malaysia. The research on past research will then lead to relevant theory and hypotheses to achieve the main research question and research objectives.

2.1 Consumer Attitudes

Attitude is frequently described as an initial process and factor that influence consumer behaviour (Uta and Popescu, 2013). Attitude is formed by three dimensions that includes affection, behavioural and cognition (Arnould et al., 2005). Solomon (2013) describe affect as the feeling the consumer has about an object; behaviour refers to the intentions of further action and cognition is what consumer believes to be true about the attitude of the object. The consumer behaviour dynamics as explained by Blythe (2013) that attitudes (formed of thought, emotion and intended behaviour) are influenced by personal and environmental factors to create actual behaviour.

Hsieh and Liao (2011) argued that affect (A) is derived based on a person's belief about an object, as beliefs about the uses and advantages of online banking will then be followed by behaviour (B) to pursue online banking without much doubt as before. There are more than one study done on the basis of the beliefs in transaction security, convenience and speed in the online banking channel (Wan et al., 2005). First time users of online banking deem to show a certain amount of suspicions in terms of their security (Barbesino, 2005). In the study by Kim (2012), it shows that Internet shoppers who believe Internet purchasing to be secure from both financial and tactile perspectives are more likely Internet buyers. Moreover, in the study by Wan et al. (2005) argued that the degree of beliefs towards the positive attribute of a banking channel will then constitute towards the positive level of adoption in online banking.

Consumer affection and belief is crucial to understand their behaviour and it is a determinant of acceptance or rejection of consumer in a subjective way. Belief is essential in the envision of electronic purchase intentions (Shim and Drake, 1990). Consumer affection and belief will possess an influence on their online banking behaviour. A person's behaviour is directed by their beliefs, attitude and intentions towards the enactment of that behaviour. Attitude will drive online consumer behavioural intentions that will automatically result to actual purchase and involvement (Dennis et al., 2009).

The interactive features of the Internet has maximise convenience, however information processing in online environments has confronted the consumer's intelligence, experience and cognitive capability (Li, 2010, cited in Hsieh and Liao, 2011). Consumers are now able to evaluate something online by their own cognitive ability and significantly differentiate each matter especially sensitive matters that involve money. It is assumed that consumers beliefs are dependent on their compiled knowledge of some key indication of the object (Hsieh and Liao, 2011). Attitude extend to the fact that a person perceives a certain behaviour to be favourable or unfavourable and that a more favourable a person's attitude towards some considered behaviour, the more likely it is that the person will want to engage in the behaviour (Hansen, 2008). Consumer will self-perceive and evaluate (cognitive ability) on the aspect of online banking and hence make judgement on their further action pertaining online banking. To further explain the context, a consumer begins to process messages as soon as it is received but the persuasion process is diverge into two different route depending on the level of involvement and the consumer's ability and motivation in processing the message (Babin and Harris, 2012).

Attitudes help consumers cope with their environment and that there is a functional theory used to prescribe attitude (Arnould et al., 2005). One of the main functions that go in line with the banking sector is knowledge function, where by it helps consumer to act in their own self-interest by seeking rewards and avoiding punishment, applies when a person is in an ambiguous situation (Solomon, 2013). This is an exact definition of attitude in consumer cognition in the banking sector as consumer is handling risk and speculations in financial trade using online banking. As so, consumer will seek reward and punishment in their financial trade and this is when their purchase intention and banking attitude changes.

To reach to the first research objective (RO1) on the relationship between consumer attitudes towards online banking behaviour, the summarised hypothesis is formed whereby:

H1: Consumer attitude (affection, belief and cognition) will possess a positive relationship towards online banking behaviour.

Evidence shows that as time goes by, users inter-relationship with bank occurs more frequently online (Barbesino, 2005). Research on consumer shopping behaviour has shown that consumer' attitudes that affect their purchase behavioural intention such as a study by Kim and Lennon (2000) that sees consumer attitudes with respect to stores bring significance to their store preferences (cited in Seock and Norton, 2006). Consumer attitude brings much effect to their own behaviour and intention towards online banking and that a bank has to keep up to the reputation especially in their online security to assure their

customer and increase their clientele. The univariate orientation assumes attitudes are strongly predictive of corresponding behaviours (Warshaw, 1980). Uta and Popescu (2013) also stated that attitudes are the consequences of affective processes and cognition that constitute the susceptibility to behave on personal sentiments. Consumer attitudes is substantially influenced by personal experience, family, direct marketing and media (Uta and Popescu, 2013). Laroche et al. (1996) confirmed that a consumer's experience towards a brand will bring on their confidence towards a brand, which will affects their behaviour on the brand (Lin et al., 2009).

2.1.1 Malaysian Culture

Cultural aspects are discussed briefly as the study touches on a specific country, Malaysia. According to The Department of Statistics (2010), the total population of Malaysia was recorded at 28.3 million by which it consist of a diverse ethnic including the indigenous group known as 'Bumiputra' with 67.4%, followed by the Chinese (24.6%), Indians (7.3%) and Others (0.7%). Malaysia is a multicultural country and that consist of people from all walks of life living harmoniously under one roof. Malaysian organisations have the advantage on their attempt in approaching the Malays, Chinese or Indians markets due to the diversity in culture and ethic in the country itself (Fontaine and Richardson, 2005).

	Score	Rank
Power Distance Index (PDI)	104	1
Individualism (IDV)	26	36
Masculinity Index (MAS)	50	25/26
Uncertainty Avoidance Index (UAI)	36	46

Table 1: The cultural index in Malaysia (Purdue Krannert School of Management, 2014).

Hofstede (1980) study has been extensively used by scholars in Malaysia to define the Malaysian culture (Fontaine and Richardson, 2005). According to the cultural index in Hofstede (1980) Malaysia have a very high PDI score which represents the inequality of power in the Malaysian culture. High power distance societies are likely to restrict the dissemination of information to preserve inequalities of power that leads to high secrecy level (Gray, 1988). Malaysia culture can be related to a stereotyped Asian culture whereby they practice collectivism rather than individualism. Their moderately high MAS index prove that they focus on result and success more and they have low UAI means they are more open towards idea and have higher and more positive attitude towards optimism. Society with low uncertainty avoidance prefers a more open, independently audited and optimistic system (Salter and Niswander, 1995). Each culture in Malaysia have their own way of conducting a behaviour, nevertheless Malaysian share their own distinct culture that blends

all the other culture into one and makes this particular Malaysian culture unique to the outside world.

2.2 Online Banking

The most recent delivery channel in the banking industry is online banking (Mavri and Ioannou, 2006). Barbesino (2005) stated that the Internet today is fully recognised as a marketing medium for the banking industry and that conventional banks and the new competitors in the industry has recognised its success in comparison with other medium; banking has gone with the swift of globalisation into the virtual realm of Internet and media and that this brings enormous influence into the current new economy. This has brought several researches in online banking to study consumer adoption and behaviour towards online banking as to the popularity that it gained over time.

Entrenched in technology, online banking is a process or transaction and fundamentally not a tangible consumer product. Although it may have represented and even function like a new commodity or service when it was originally popularised, online banking is now most precisely depicted as a comparatively new, adaptable, and technologically-acclimatised procedure whereby, consumers can achieve customary banking duty more instantaneously and effortlessly than in the past (Lassar et al., 2005).

Banks act similar to the current online retail industry as they offer different services online that includes balance check, money transfer, payment and stock trading (Barbesino, 2005) as well as to obtain account information by using conventional technologies for instance personal computers or telephones (Mavri and Ioannou, 2006). Online banking in the study by Pikkarainen et al. (2004) is defined as an Internet portal, through which customers can use different kinds of banking services ranging from bill payment to making investments. Chou and Chou (2000) (cited in Lassar et al., 2005) distinguished five primary services that correspond to online banking, which consists of:

1. View account balances and transaction histories;
2. Pay bills;
3. Transfer funds between accounts;
4. Request credit card advances; and
5. Order checks.

These services are provided by controlled access Internet sites, given the assurance on the Internet security measures that go against unauthorised interference, labelled distinctively with a prefix of https:// (Barbesino, 2005). Banks' websites that offer only information on their

pages without possibility to do any transactions are not qualified as online banking services (Pikkarainen et al., 2004). Although not every person who goes online is an online banking customer (Shih and Fang, 2004), it is important to study consumer attitude towards online banking in Malaysia as Malaysia has the record of highest penetration of Internet banking in Southeast Asia (Central Bank of Malaysia, 2014).

The study by Barbesino (2005) shows that the interest in online banking is uptrend as the time consumed on banking websites is more than twice of the time consumed on monetary information websites, and that more than half of the people are visiting banking website as compared to financial information websites. Banking has not only been for normal usage, it has also covered trading that involve financial security. Consumer attitude has to be evaluated in accordance with online banking to measure the correlation of them together. Internet transactions originated in the late 1990s when a massive number of commercial shareholders were captivated by online stock trade considering the low rate in commission and charges, better achievement and decreased reliance in their financing approach (Barbesino, 2005). Online banking is a modern form of information system that adopts the avant-garde resources of the Internet and WWW to permit customers to response to financial activities in the virtual environment (Shih and Fang, 2004).

Online transactions can be evaluated to include three key steps: information acquirement, interchange of information, and product investment (Pavlou, 2003, cited in Chen and Barnes, 2007). Several researchers have studied on the purpose of understanding consumer behaviour on the online banking. Online banking studies have been diversified into several aspects namely adoption of online banking (Akinci et al., 2004; Lassar et al., 2005; Wan et al., 2005), the diffusion of online banking (Lee et al., 2005) and consumer perspectives on online banking services (Mavri and Ioannou, 2006). Some researchers even relate online banking towards the theory of planned behaviour (Shih and Fang, 2004). The individual's attitude toward the behaviour is of central importance, however it is assumed that given the behaviour will occur, and the individual's attitude toward the object is the substantive issue (Bearden and Woodside, 1977). All of the imposed study on online banking lays a gap in the literature whereby consumer attitude aspects have not been developed with the use of theory of reasoned action in the banking industry.

2.3 Determinant Factor of Online Behaviour in the Banking Industry

Internet is invested to more diverse uses, in the study of Bellman et al. (2009) in the US WVTM survey includes the use of Internet in banking (6.4%), and personal finance and investment information (3.8%). The current societal trend has change its swift, as so,

Sahney et al. (2008) argues that the changed attitude of Internet users who look for speed, promptness and convenience. The online trading taxonomy, in the case of conventional or online frame of reference, propose that in a extensive situation, their motivation can be determined as either cognitive or affective (Kim and Eastin, 2011).

Online behaviour in banks in Malaysia have been studied by several researchers. Sohrabi et al. (2013) study the factor for the adoption of e-banking in Malaysia and several attributes that stimulates e-banking consist of risk (privacy and security), trust and cost and charges. Poon (2008) added that the factors affecting online banking acceptance is divided into convenience, accessibility, feature availability, bank management and image, fees and charges, privacy, security, design, content and speed. Hong et al. (2013) stated that perceived security, complexity, customer experience and individual characteristics affect online banking adoption in Malaysia.

Despite the direct factors influencing online banking is apparent, the underlying risk and security should not be taken lightly. The study by Lee et al. (2003) found out the positive relationship between privacy and security with online banking adoption. A study by Hong et al. (2013) in the context of Malaysian adoption of online banking have found out that security have direct correlation towards online banking. In the study by Sohrabi et al. (2013), the positive correlation between security and privacy with online banking adoption are 0.449 and 0.526 respectively. The indisputable disadvantages of online transactions are the high uncertainty level that involved than their physical counterparts (Yeh et al., 2012). Higher proportion of initial trust and experience online reduces consumers' perceived risks, brings positive attitudes in intentions, and eases decisions making (Chen and Barnes, 2007).

In sight of the research project, despite researching on the attitude, a more specific research will be driven from the factors mentioned above. Researchers brought different ideas in terms of the behaviour on the virtual environment. A summarized factor that will be looked upon in the research in line with consumer attitude are concluded as:

1. Convenience and Accessibility (Wan et al., 2005; Poon, 2008; Sahney et al., 2008)
2. Risk (Sohrabi et al., 2013)
3. Perceived privacy and Security (Lee et al., 2003; Poon, 2008; Hong et al., 2013; Sohrabi et al., 2013)

A hypothesis is then formed in relation to the above attributes, that reaches the second research objective (RO2) whereby:

H2: Determinant factors under consumer affection, belief and cognition have a positive relationship towards online banking behaviour.

2.4 Fishbein's Behavioural Intentions Model (Theory of Reasoned Action) in the façade of Online Banking

The theory of reasoned action (TRA) has been popularly studied by researchers and it has also been taken to determine the correlation amongst attitudes, intentions and different behavioural enactment (Casimir et al., 2012). The Fishbein's behavioural intention formulation, which hypothesizes two components model of intention inclusive of attitudinal and normative compound, has obtained massive debate in the consumer behaviour literature (Miniard and Page, 1984). Attitude is a core construct in the Theory of Reasoned Action model (Prendergast et al., 2010). Fishbein and Ajzen came out with a theory that a person's behaviour is derived by his or her will to execute that behaviour and that purpose are components of the person's attitude towards the behaviour and the resultant aftereffect (Kim, 2012), consumers' attitude in relation to the particular behaviour is a predictable message of the individual's intention to immerse in that behaviour (Hansen, 2008).

Many studies have touched on the theory of reasoned action for instance Shih and Fang (2004) study the belief of individuals, their attitudes, subjective norms and perceived behavioural control, and how these can influence intention toward adopting Internet banking; Kim (2012) studies on the attempt to confirm Fishbein and Ajzen's (1975) theory of reasoned action in online shopping; theory of reasoned action (TRA) was explained by Hsieh and Liao (2011) that it is used to elaborate an individual acceptance on information technology (IT). There are a few present studies that have stated on the positive relationship between the intentions and actual behaviour in the subject of shared cognition (Casimir et al., 2012). Knowledge sharing is vital as the study of Liang and Huang (1998) constituted that internet purchasing is dependant on previous experience projected from the consumers (Shergill and Chen, 2004) and that knowledge sharing of experience from the subject norm in terms of trade will then influence consumer intention and behaviour in online banking. There will be influence on one and of other in terms of banking as it touches a sensitive issue that involves money and that consumer will pay more attention into each process and the importance to it will be higher than that of a generic online shopping which does not provide impact as big as online banking.

However, the intention to perform a distinct behaviour does not often expedite to the performance of the behaviour; the correlation between intention and behaviour is most

probably intervened and/or controlled by variables that promote the intention manifesting into behaviour (Casimir et al., 2012). This theory suits the study due to one of the reason explained in Hansen (2008) where consumer may have complication and speculation when considering online purchasing activity and expects to utilise their self knowledge in regulating beliefs in regard of the attitude related, which consecutively may result in the outcome on the development of the theory.

In TRA, all beliefs are summed together (Pikkarainen et al., 2004). Lee et al. (2005) explains TRA states that behaviour (e.g., technology acceptance) is best forecasted by intentions, and that intentions are closely linked to an individual's attitude and the subjective norms pertaining to the behaviour. Subjective norm is the issue discussed pertaining behaviour and intention and that this will affect the outcome of consumer in online banking related services and activities. Some individuals, may be more 'sensitive' to social demands and therefore may attach more weight to their normative considerations than other individuals (Miniard, 1981). The study by Shim and Drake (1990) found out that attitude and subjective norm were significant in influencing behavioural intention when attitudinal component entered in the regression model. Subject norm of belief that most people who bring significant personal value to the person think he or she should comply to that behaviour, posses either direct or indirect knowledge of others' expectations (Miniard and Page, 1984). As so, the other hypothesis is form whereby:

H3: Subject Norm under the theory of reason action will possess a positive relationship towards online banking behaviour.

This study on subject norm is to identify whether there is a positive correlation on the influence of subject norm on consumer online banking behaviour. Consumer may or may not follow the influence on online banking if their rationale permits them so. TRA is based on the assumption that consumers' behave rationally and that they collect and evaluate systematically all of the available information (Pikkarainen et al., 2004).

A person's attitude toward behaviour can lead to a mixture of positive and negative intention (Lin et al., 2009). Consumer intention and decision is influence by both external (culture, influence groups, family and friends, sellers and internet communities) and internal (attitude, personal experience, motivation, emotions, understanding, knowledge and learning, and other psychological attributes) factors (Zitkus and Puskoriute, 2013) and that online decision making process can be spontaneous and analytical (Veronika, 2013). TRA postulates a causal chain where both personal and wherein both privy and shared attitudes towards a behaviour determine the intention to undergo the behaviour, and thereupon the conduct of the behaviour (Casimir et al., 2012). Additionally, TRA presumes that people also consider

the consequences of their possible behaviour and based on this reasoning make decision whether or not to perform action (Ajzen and Fishbein, 1980; Pikkarainen et al., 2004). This is where subjective norm is taken into account and that an individual's attitudes does not influence an immediate behaviour, but rather they are accustomed by behavioural intentions; therefore, a direct cause of behaviour is a person's purpose to the commission of the behaviour (Lee et al., 2005).

A customary explanation of customer activities and behaviour online is the consumer's beliefs upon the website content and the perceived utilitarian and hedonic values of the website (Hsieh and Liao, 2011). Hansen (2008) empirically tests the relationship of consumer personal values, attitude, social norm and willingness to undergo purchase activity online and that the result stated that there is a possibility that consume attach personal values to attitude and may relate as the consumer previous experience in online purchase. Fishbein assumes 'affect' and 'evaluation' are indicators of different constructs and assets 'subjective norms' influence behavioural intentions (Danes, 2001).

Fishbein's Behavioural Intentions model postulates that intention, viewed as the immediate antecedent of behaviour, is determined by an attitudinal or personal component and a normative or social component (Miniard, 1981). The extended model posits that an individual's intention to perform a behaviour, and thus his action behaviour are a joint function of the individual's attitude toward performing the behaviour and his normative beliefs about what others expect him to do in a given situation, weighted by his motivation to comply with those beliefs (Bearden and Woodside, 1977). Motivation to comply varies across individuals. In this study, one more hypothesis is formed to investigate consumer motivation to comply in regards of the influence of subject norm.

The hypothesis is formed as below:

H4: Consumer own compliance (motivation to comply) in relation to subject norm influence will possess a positive influence on online banking behaviour.

2.5 Chapter Reflection

According to the literature review on the study, the theory of reasoned action is taken into the research to study on the behavioural intention influence by consumer personal norm and own compliance. This research project will relate part and parcel of cultural aspect into the study after which will be used to explain the answer driven from the hypothesis. The further research will be elaborated on the methodology chapter by a minor adaptation on the study by Chih-Chang and Chung (2005) to identify consumer attitude towards online banking.

After gaining the hypothesis of each topic, a summary of attitude and behaviour will be taken into research to answer the research question. As so, a summed hypothesis that researches the third research objectives (RO3) is formed as below:

H5: Consumer attitude and subject norm influence will have positive correlation towards the Malaysian online banking behaviour.

Five hypothesis were generated to answer to the root of this research, whereby:

What is the correlation between Malaysian consumer attitude and subjected influence towards online banking behaviour?

Chapter 3

Research Methodology

This chapter will discuss on the methods used to conduct the research. The research will be using quantitative methods involving a questionnaire to acquire answer for the hypotheses from the previous chapter as well as to answer the main research question will do appropriate research.

3.1 Research Question and Objectives

From the given literature review, a main research question was derived:

What is the correlation between Malaysian consumer attitude and subjected influence towards online banking behaviour?

Several aspects will be investigated which includes the consumers' attitude towards the behaviour and subject norm as the independent variable to find the relationship of that with the dependent variable that is their online banking behaviour.

Attitudes and motives have been used extensively as segmentation variables to illustrate specific customer groups whose attitudinal profiles showed resemblance within the group (Akinci et al., 2004). There are several studies stated and the gap were presented in the literature review whereby the subject norm and motivation to comply is often not taken into account into research of the attitude towards online banking. Therefore, several hypothesis were constructed in relation to the literature review to answer the above research question as well as to achieve the research objectives.

To achieve the first research objectives (RO1), a hypothesis is derived whereby:

H1: Consumer attitude (affection, belief and cognition) will possess a positive relationship towards online banking.

The second research objectives (RO2) derive another set of hypothesis that is:

H2: Determinant factors under consumer affection, belief and cognition have a positive relationship towards online banking behaviour.

To achieve the third research objectives (RO3), two hypothesis are derived consisting of the following:

H3: Subject Norm under the theory of reason action will possess a positive relationship towards online banking behaviour.

H4: Consumer own compliance (motivation to comply) in relation to subject norm influence will possess a positive influence on online banking behaviour.

Finally, the last hypothesis is formed to summarise the whole research and to answer to the main research question:

H5: Consumer attitude and subject norm influence will have positive correlation towards the Malaysian online banking behaviour.

The research question will be answered and the hypothesis will be verified by applying a self-administered questionnaire with adapting a minor concept question in the study of behaviour intention model of consumer online shopping by Chih-Chung and Chang (2005). Moreover, to seek the determinant factors on online banking in Malaysia, the factors in the study by Poon (2008) and Sohrabi et al. (2013) will be incorporated into the research. This chapter provides the rationale or the approached research philosophy, data collection, pre-test and sampling method including the analysis of the reliability, validity and data analysis of this research.

3.2 Research Paradigm

According to Onwuegbuzie and Leech (2005), there are similarities between positivism and interpretivism whereby both of them incorporate the observation practice to propose research questions. Furthermore, both positivism and interpretivism researchers often attempt to triangulate their data, using within-method triangulation that involves the use of multiple quantitative or multiple qualitative methods (Denzin, 1978, cited in Onwuegbuzie and Leech, 2005).

In positivism, all are tabulated in a numerical ways and that the findings are tentative and qualified (Saunders et al., 2012). The methodology of this research will be based on surveys and it is directly associated with positivism (Collis and Hussey, 2009). A deductive approach in the positivism theory will be used in the study as well, as it is the approach used by quantitative research design. A survey approach usually concord to a deductive research method (Saunders et al., 2009). As suggested by Blaikie (2010), deductive research approach will only progress when it has a set of hypotheses to form a theory, comparing argument with the selected theory to gain more understanding, the result is tabulated where inconsistent result will be rejected whereas the consistent result will be corroborated (Saunders et al., 2009).

A positivism approach will be used in this research on consumer attitude in banking behaviour as it will be more relevant in singling out causal explanations on the assumption of a cause-effect relationship between variables (Porta and Keating, 2008). In interpretivism on the other hand, the researchers have to understand the differences between humans in our role as social actors and to adopt an empathetic stance and they are a dynamic of an intrinsic of circumstances and individuals coming together at a specific time. Qualitative data are normally transient, understood only within context and normally result in high degree of validity (Collis and Hussey, 2009).

Although there are differences between the two methods, both empirical and qualitative data are interchangeable (Onwuegbuzie and Leech, 2005). In sight of this research a positivist approach will be executed to explain the hypothesis of the theory formed by the author. By adopting the philosophy of positivism, an existing theory is used to develop a hypothesis (Saunders et al., 2009). The theory and knowledge on the theory of reasoned action in consumer behaviour has been generated by previous studies varies from consumer shopping behaviour to consumer banking adoption and acceptance. To research on this matter on consumer banking behaviour with the gap found in the theory, a positivist approach will be used as positivist usually start with a hypothesis derived from theory and previous knowledge (Porta and Keating, 2008). The hypotheses were presented that includes consumer attitude and consumer subject norm both to present a substantial positive stimulus towards online purchase decision. Saunders et al. (2009) added, another important component to this type of research includes that the research is taken in a value-free way and the findings are tentative and qualified.

3.3 Questionnaire Design

A questionnaire survey is a very precise research instrument that answers exactly the questions that was asked (Hackley, 2003). A self-administered questionnaire with a minor adaption of the study by Chih-Chung and Chang (2005) was used for this research. A self administered questionnaire was used due to the survey in the questionnaire include the demographic aspects, for instance occupation, education level as well as online banking usage; respondent could answer the self-administered questionnaire at their convenience (McDaniel and Gates, 2002; Shergill and Chen, 2004).

Veronika (2013) stated that the demographic structure of online purchaser in this day and age occurs most at the age between 18 and 40 years old and originate from the middle-income class. As so, the demographics session will be looking more into respondent from

the age between 18 and 40 years old with profession, the frequency of online banking as well as the purpose of doing online banking.

Section B onwards will be looking into the literature concerning the attitude of respondent in the act of online banking. Five-point Likert scales are normally used for the measurement of online purchase frequency and online repurchase intention (Sakarya and Soyer, 2013) as well as to measure consumer attitude (Evans et al. (2009)). Hence, Likert five-point scale responses were also used in all closed question starting from section B to section D with '1- strongly disagree' to '5- strongly agree' to access attitudinal variables (Kim, 2012).

The question from section B and C will be a minor adaptation of the questionnaire by Chih-Chang and Chung (2005) in measuring the attitudinal variable in online banking behaviour. To measure the cognition, the question will start by depicting consumer knowledge and thought about the pros and cons of online banking. To measure the belief and affection on the other hand, 'I feel' is used in every question to relate well to consumer own feeling towards online banking.

Attitude consists of positive and negative feelings towards a subject. To further explain the issue in the matter in the questionnaire, there will be several juncture of positive and negative statement in the questionnaire. For instance, item 2 in section B states that 'online banking help in obtaining more emphasis and clarity at buying commodities than offline bank branch' and item 11 states that 'online banking is not particularly the best options...offline bank branch serves a better purpose than online banking'. Furthermore, item 2 in section C states that '...online banking brings more advantage than disadvantage' and item 5 states that '...online banking brings more disadvantage than advantage'. All of the contradict statement were recognized as ambiguous in the pre-test made. Due to that reason, the questions were kept for the use of the study.

The question from section D and E will be a major adaptation of the questionnaire by Chih-Chang and Chung (2005) in measuring the subject norm of the consumer in online banking. Subject norm influence is divided into two: one consists of the influence of people on the external parties into online banking purchases and the other on consumer own compliance (motivation to comply) towards the influence exerted by the external parties. As so, 'influence in my online banking behaviour' and 'get influenced easily' is largely executed in this section of the questionnaire.

3.4 Data Collection, Sampling and Limitations

To answer the research question and to be able to verify and validate the hypothesis stated, primary data are collected in the research. The data collection method involved is a three-page questionnaire, which respondents would take about 25 to 30 minutes to complete. This is done within a time frame of two weeks using a self-administered online survey, using free software Google Docs.

Banks seldom release the number of actual users of the online banking service (Barbesino et al., 2005) but through in-depth research there is a newspaper report on the amount of internet banking users in Malaysia which consist of 14.6 millions users (The Star Online, 2013). With the population more than millions, the ideal sample size goes way beyond the scope of this research project. Therefore, a non-probability approach of convenience sampling is used in this research project. 210 respondents were chosen randomly by using the social networking site Facebook, email and free mobile text application Whatsapp to participate in the online survey.

Due to the limited time frame and resources of the research project, a convenience sampling will be done based on the general Malaysian population as a whole. Therefore, the specific agenda towards the behavioural pattern of the different culture will not be taken into account. The research project will focus on the general Malaysian publics that have the online banking experience.

Web-based survey is an appropriate way to collect information from Internet users (Mathwick, 2002; Shergill and Chen, 2004). The investigation will focus on the consumer attitude and online purchasing behaviour. Judgmental sampling will be used to identify the appropriate respondents that meet the criteria of the test that adhere to the usage of online banking in Malaysia. According to Malhotra (2010), judgmental sampling is a form of convenience sampling in which the population are selected based on the researcher's judgment as to they believe that the population are appropriate and share similar interest in the field. Given that the author did not have the full detailed database of online banking consumer in Malaysia, this represents a more appropriate way of data collection.

3.5 Pre-test

A pre-test was conducted with 12 people to evaluate how well the questionnaire was understood. Pretesting refers to the testing of the questionnaire on a small sample of respondents to identify and eliminate potential problems (Malhortra, 2010). The

questionnaire was given out and some feedbacks were taken in from the respondents as some of the respondents criticized the clarity and ambiguity of several questions. For instance, ‘..online banking provides better offer in terms of trade services’, ‘online banking reduces the trouble of going to bank offline’ can be interpreted in many ways and confuse the respondent. To further simplify the context, a small caption was written to amplify the question and to gain further clarity in the question itself. The result is then analysed and the set has shown to be reliable. Due to that reason changes were made in the questionnaire besides clarity given in several question itself.

3.6 Data Analysis

The self-administered online questionnaire on the free software Google Doc makes the process easier by tabulating all the results in the Microsoft Excel spreadsheet. As the questionnaire generated by using Google Doc has the option of requiring every question to be answered, there will be no missing data held from the questionnaire itself. The coding transferred from Google Doc into the Microsoft Excel spreadsheet makes it easier to code into numbers as 1 represents strongly disagree and 5 represents strongly agree in the questionnaire. All the data received from the respondent will be tabulated and coded into SPSS 20 package in the variance view.

The first step is to identify the demographics of the respondent and descriptive variable of the first section of the questionnaire. Kim (2012) explained that descriptive statistics were used to compare and explain about the demography and information technology including internet experience of the respondents. As so, a descriptive analysis will be taken in the sample demographics and pattern section.

To generate answer for the first hypothesis, a multiple regression analysis will be used to identify the relationship between the affection, belief and cognition in consumer attitude towards online banking behaviour. Multiple regression analysis is normally used to introduce more than one independent into the study (Proctor, 2005, p.304). A reliability statistics using Cronbach’s Alpha will be used to check on the reliability of each component in consumer attitude and to determine the internal consistency for the individual scales and their subscales (Stevens, 2002; Kim, 2012). A descriptive statistics will be used as well to check on the consumer perception in their affection, belief and cognition towards online banking. The mean score will be explain to find out consumer attitude towards online banking. Finally, the use of multiple regression analysis will be used to identify the relationship between consumer attitude towards online banking behaviour.

The second hypothesis involves a factor analysis. Factor analysis identifies separate dimensions and obtain a factor loading for each variable on each factor (Proctor, 2005). A few factors or component under the influence of consumer banking attitude will be apparent in this section. A reliability test will be done on each factor to check on the validity and significance of the factor. A simplified and compact detail of the factors that relates to online banking behaviour will then be summarized and explained.

To gain answer for the third and the forth hypothesis, a bivariate regression analysis will be done to check on the relationship between:

1. Subject norm influence towards online banking behaviour; and
2. Consumer own compliance towards online banking behaviour.

Bivariate regression analysis determine the simple correlation between two variables (Malhotra and Birks, 2006). A Pearson's correlation test will be done to test and provides additional information about the linear relationship between two variables (Collis and Hussey, 2009). Through the correlation test, the relationship will be identified and hence will achieve the third research objective (RO3). After that, total subject norm influence will be tested using a multiple regression analysis to check on the total subject norm influence (internal and compliance) towards online banking behaviour.

Finally, a multiple regression analysis will be done on both independent variables (consumer attitude and subject norm influence) towards the dependent variable of online banking behaviour. Through the final test, a complete answer will be generated to answer to the main research question:

What is the correlation between Malaysian consumer attitude and subjected influence towards online banking behaviour?

3.7 Chapter Reflection

Each measure of the hypothesis was identified from this chapter to answer to the main research question. Primary data collection will be utilized throughout the research project and all of the collected statistical data will be explained in the data findings and analysis chapter.

Chapter 4

Research Findings and Analysis

This chapter will look upon the data findings and the answers derived from the resulted outcome. The answer to the main research question will be presented along with the results tabulated from the hypothesis.

4.1 Sample Descriptive Analyses and Pattern

A total of 210 invitations for the online survey were distributed via several means including the social networking site Facebook, free mobile application Whatsapp and email to gain suitable and enough respondent for this research. Out of the two weeks frame, a total of 103 complete and suitable responses have been collected. There are two sets of questionnaire that have been excluded in the research, as the data found in them is rather vague. Malhotra (2007, p.199) suggested that Internet has the poorest response rate, even lower than mail surveys due to the restrictions of facilities and personal factors towards them. The response rate for the research is 49.05%, in which according to Malhotra (2007), the research response rate is very satisfactory to the average response rate of 47.3% in mail surveys.

The research samples gathered consist of 50 male respondents (48.5%) and 53 female respondents (51.5%) and this shows a fairly equal distributions taken from the research (see appendix 1). The age for online banking was tabulated and there is a fairly equal distribution from the age of 18 years old (27.2%) to more than 40 years old (22.3%). The study by Poon (2008) shows that the normal online banking is done majority in the age group of 26-45 and the study by Wan et al. (2005) proved that younger or older customer adopt online banking the lowest as generally middle adulthood segment of people have the highest rate of adoption in online banking. This study rectified the study by Wan et al. (2005) and Poon (2008) that the age group of 25-32 (28.2%) is more prone to online banking due to the fact that they are people who exposed better in the realm of Internet and online services. The online banking usage occurs more between 3 to 4 times a week (35%) to 3-4 times a month (29.1%). This may be due to their behaviour and attitude towards online banking that can be related to the investigation by Seock and Norton (2006) and that there is direct determinant in the intention to perform a behaviour an immediate determinant of intention to perform a behaviour when the more positive the attitude will lead to higher degree of intentions to search for more details.

Most of the respondents have obtain higher education whereby the majority of the respondents have at least a degree level at 59.2% of the total survey population followed by Masters level at 25%. Respondents who have only obtained O-levels are at 6.8%, which represent the least in the area of education. The result obtain goes in line with the statistics of education in the Malaysian population by the Malaysian Department of Statistics (2014) that nearly 70% of both gender in Malaysia receive at least a certificate, diploma or degree and that the Malaysia achieve a high literacy rate of 88.9% (Yahya et al., 2007). Moreover, on the occupation sector revealed that most of the respondents are working either with a local private sector (31.1%) or an international private sector (29.1%). The minority of the respondent stands a small percentage in the occupation sector with civil servant of 9% and others with 4%. After identifying the occupation factors, most 'unemployed' or 'others' respondent with a combination of 13.6% of the total respondents are either student, fresh graduates and in the midst of a job search as the job market in Malaysia is rather low with the unemployment rate of 3.2% in Feb 2014 (Malaysia Department of Statistics, 2014).

Furthermore, Malaysians have knowledge towards online banking as their past experience in online banking is presented in the table for their purpose in online banking. In this multiple response questionnaire, respondents are allowed to choose more than one answer pertaining their use of online banking. The result in appendix 1f showed that almost all of the respondent use online banking to view balance and transaction history (n=98, 19.8%), pay bills (n=91, 18.4%) as well as transfer funds between accounts (n=91, 18.4%). The penetration of online banking in Malaysia is high as discussed previously, and that most respondents have used the service before (see appendix 1g) from transferring funds between accounts (n=91, 18.4%) to compare stock and funds (n=45, 9.1%) and stock trading (n=42, 8.5%). Lastly, the past online banking purchases made online includes funds (n=69, 26.5%), banking service upgrade (n=57, 21.9%), trade exchange (n=48, 18.5%), shares (n=46, 17.7%), Forex (n=35, 13.5%) and others (n=5, 1.9%).

The sample description and pattern has proven the fact that the penetration of online banking is high with a high number of response towards their past usage and online banking purchases. With the development of Multimedia Super Corridor (MSC) in Malaysia, the developing state of the country and the high literacy within the nation (Malaysian Department of Statistics, 2014), Malaysia has good knowledge upon the concept of online banking.

4.2 Consumer Attitude (Affection, Belief, Cognition) toward Online Banking

The first part of the questionnaire concerns the part in consumer attitude whereby section A in part two consists of survey on consumer affection and belief; section B in part two concerns on the cognition factors. Prior to the test, a Cronbach's Alpha reliability test was

used to determine the reliability of the research question. The reliability test seems positive whereby the alpha value for affection and belief is 0.742 (see appendix 2a) whereas the alpha value for cognition stands at 0.760 (see appendix 2b) which falls more than 0.7 that is the guideline required for the test (Rodeghier, 1996). There is a high reliability for survey to be executed (Rodeghier, 1996).

A descriptive analysis was done on consumer attitude to investigate the respondent attitude towards the agreement of the terms in online banking. In the affection and belief part (see appendix 2c), the respondent felt that online banking reduces their trouble and complications with high amount of agreeable value (mean=4.39). They also agree that online banking brings multiple benefits to them such that it satisfies them and brings a sense of achievement in conducting online banking (mean=4.07), saves time and increase quality time (mean=4.13), no time pressure in pursuing online banking (mean=4.12) but also disagree on the feeling towards the negativity that brings them that includes the security issues (mean=2.78), legit issues (mean=2.55) as well as disagreement to the fact that offline bank branch serves better purpose than online banking (mean=2.39). Generally, the respondents have positive feelings and belief towards online banking. This can be related to their culture as Hofstede score of 36 in UAI, Malaysians are opt to have positive feelings towards positive values, in such online banking. They are open (Salter and Niswander, 1995) towards the concept of online banking which ease the research to be done.

A simple descriptive analysis was done also on consumer cognition towards online banking (see appendix 2d). Respondent thinks very highly on online banking as they highly agree upon the fact that online banking serves more advantages than disadvantages (mean=4.05). There are interesting findings in the descriptive data on consumer cognition as they know the advantages that online banking bring to them, but there is still slight agreement in the risk factors that they realize (mean=3.27). Respondent have the thought that online banking is not completely safe (mean=3.08) but they disagree on the fact that online banking is risky (mean=2.51) and insecure (mean=2.43). Respondent even disagree on the fact that online banking provides more disadvantages than advantages (mean=2.15). To get a clear answer in the relationship of consumer attitude in terms of affection, belief and cognition towards online banking, a multiple regression analysis was done to analyse the relationship between them.

Multiple regression analysis was done on two independent variables 'affection and belief' and 'cognition' towards a dependent variable on online banking. Correlation and multiple

regression analyses were conducted to examine the relationship between consumer attitudes towards online banking. The multiple regression model with two predictors produced $R^2 = .093$, $F=5.136$, $p<0.05$ (see appendix 2e and appendix 2f). As seen in appendix 2g, cognition and affection and belief have positive correlation towards online banking. The relationship on affection and belief is much stronger as compared to cognition towards online banking. R^2 indicates the proportion of change in the dependent variable that is associated with changes in the independent variable (Proctor, 2005, p. 296). In sight of the research, 9.3% of the variation in online banking behaviour is associated with the changes in the 'affection and belief' and 'cognition' variable, and that the variables jointly have some predictive power (Rodeghier, 1996, p.145). F is used to test the null hypothesis that the coefficient of multiple determination of the population (Malhotra, 2007, p. 553). With $F=5.136$, it shows that 'affection and belief' and 'cognition' have satisfactory significance in predicting online banking behaviour.

The Durbin-Watson test in the research shows 1.604, which is close to 2 (appendix 2e). This shows there is no autocorrelation in the sample (Investopedia, 2014), which also means that the result of the dependent and independent variable is significant. The coefficient stated that with every positive attitude that increase by 1 value in 'cognition' and 'affection and belief', there will be 23% increase on the behavioural factor in online banking in terms of 'cognition' and 'affection and belief' respectively. The ANOVA test on consumer attitude towards online banking is very significant with the value of $p=0.008$, $p<0.05$ (appendix 2f).

The adoption studies done towards the Malaysian consumer by Poon (2008), Hong et al. (2013) and Sohrabi et al. (2013) can be adapted towards this study to prove the positive correlation between consumer affection, belief and cognition towards online banking. Therefore, H1 is testified and proven whereby:

Consumer attitude (affection, belief and cognition) will possess a positive relationship towards online banking.

4.3 Components Of Consumer Affection, Belief and Cognition: A Factor Analysis.

A factor analysis is done to identify the separate dimensions being measured by the survey and obtain a factor loading for each variable on each factor (Proctor, 2005) concerning online banking behaviour. The second hypothesis test on the determinant factors in online banking purchasing behaviour under the influence of consumer belief, affection and cognition will influence online banking. To explain the test better, the same scale of questionnaire towards consumer affection, belief and cognition will be used to test the loading factor that is mentioned on the literature review section.

A few factors were determined in the literature review part that consists of accessibility and convenience, risk, privacy and security. A priori determination was done based on the researcher's prior knowledge towards the topic and thus can specify the factors to be extracted beforehand (Malhotra and Birks, 2006, p. 580). Malhotra and Birks (2006) also added that the extraction of factors ceases when the desired number of factors has been extracted during the research.

A total of 22 components have been extracted from the cognition, affection and belief part in the questionnaire (excluding the unrelated parts on determining the advantages and disadvantages towards online banking) to test on the factors in the research. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy shows the sample are at a value of 0.750 (see appendix 3a), which represents a high values (between 0.5 and 1.0) in the test and this indicate that the factor analysis done is appropriate (Malhotra and Birks, 2006) with the p value less than 0.001. A correlation matrix (appendix 3b) was done to check on the simple correlations between all possible pairs of variables included in the analysis (Malhotra and Birks, 2006) and it shows that factor 1 (Perceived privacy and security) have a positive correlation towards factor 4 (Risk) at 0.363 and factor 2 (Accessibility) have a positive correlation towards factor 3 (Convenience). The literature in the previous chapter proved the relationship of them whereby Poon (2008) discussed on the positive relationship between convenience and accessibility of online banking towards the adoption in Malaysia. The study by Poon (2008) also sees the relationship between risk and perceived privacy and security towards online banking in Malaysia as 56% of the respondent perceives that confidential issue lies within the bank that will jeopardise the privacy and security of the customer. Hence, both perceived privacy and security as well as risk could be related together

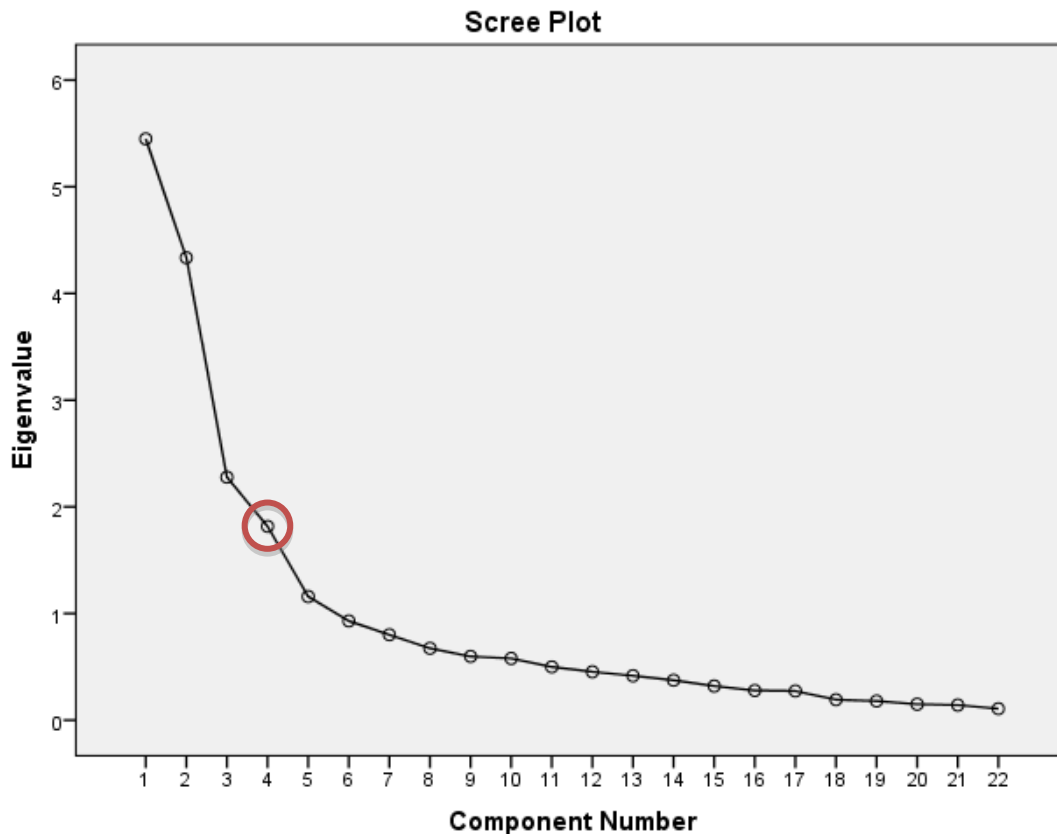


Figure 2: Scree plot of determinant factors.

According to Figure 2, 5 factors were determined from section A and B in the questionnaire. The Eigenvalues only take in values that are more than 1.0 (Malhotra and Birks, 2006), the other values less than that are excluded. The Eigenvalue for four of the factors are 5.448, 4.335, 2.278 and 1.159. The total of four factors obtain a minimum Eigenvalue score of 1.159, and the total percentage of variance at 60.1%, which fulfills the recommendation by Malhotra and Birks (2006) on the total variance of more than 60.0% to be retained only. Only four factors are taken into account (see appendix 3h), leaving the forth factor behind. The items on 'Q9_Online banking makes me more tempted to purchase funds, stocks and shares and hence interrupt my budget planning' and 'Q10_Online banking brings me pressure in buying commodities there and then when I see the price fluctuates at a fast pace' were excluded from the factors as they bring negative value and those two variables on a scale factor itself and bring no significant value and correlation between the variables towards the explanatory power of the factors. This explains factors number four to be discarded and the emphasis only lies on factors 1,2,3 and 5.

A Cronbach's Alpha test were conducted to determine the reliability of each of the factors and the result on the factors were promising, where all of the factors are reliable with the

value of more than 0.70. The Cronbach's Alpha value for factor one is 0.874 (see appendix 3c), second factor at 0.732 (see appendix 3d), third factor at 0.815 (see appendix 3e) and the forth factor at 0.821 (see appendix 3f). A strong result factor is explained by the above evidence, and that the factor analysis are well suited to the research. A simple clarification upon each factors are explained in the table below:

	Factors and Items	Factor Loading	Eigenvalue	Variance	α
Perceived Privacy and Security					
12	Online banking is not the best options for me as I think that there will be issues on the legit factors of the online web and network.	0.872	5.448	24.766	0.874
13	Online banking is not the best option for me as I think that there will be major security issues if the computer is hacked.	0.834			
22	I believe that there will be mishap in the online banking sector and that I am not completely secure in the virtual environment.	0.653			
23	I believe that although online banking and purchases serves advantages, there is still risk underlying it.	0.540			
25	I believe that personal and financial security in the virtual environment will jeopardise the good feature of online banking.	0.538			
11	Online banking is not particularly the best options for me as I think that offline bank branch serves a better purpose than online banking.	0.638			
21	I believe that online banking and purchases is safe to a certain aspect.	0.531			
Accessibility					
1	Online banking can serve my curiosity in getting the right detail and answer for banking related services	0.625	4.335	19.703	0.732
2	Online banking helps me to obtain more emphasis and clarity at buying commodities than offline bank branch.	0.842			
15	I feel that online banking provides better offer in terms of trading services	0.890			
24	I believe that online banking makes me better in my analytical skills.	0.854			
Convenience					
3	Online banking makes me feel satisfied and a sense of achievement after completing the banking task I want to with a click of a finger.	0.521	2.278	10.353	0.815
6	Online banking helps to reduce the time cost of searching product information.	0.524			
7	Online banking helps me to buy particular or unique commodities offered online only.	0.491			
8	Online banking save time and increases my quality time in other aspects of life.	0.773			
4	Online banking reduces the trouble of going to bank offline.	0.876			
5	Online banking gives me advantage of surfing the commodities without time pressure.	0.734			
Risk					
17	I feel that online banking is insecure.	0.873	1.159	5.268	0.821
18	I feel that online banking is risky.	0.812			

20	I feel that online banking is risky as to my personal information may be leaked.	0.543
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Table 2: The determinant factors of consumer attitude towards online banking.

Perceived privacy and security accounts for 24.77% of the total variables that means this factor bring importance to the online banking users. E-commerce security is defined as the consumers concern on the risk of financial transaction over the Internet (Yahya et al., 2007). First timers in online banking usually possess a certain amount of suspicion in dealing with online financial sites, this mainly caused by doubts about security (Barbesino et al., 2005). The perceived security is apparent towards online banking consumer, even though they are already involve in the transaction made by online banking. Privacy and security is a very sensitive issue, and consumer will never feel safe as they are dealing with a virtual environment, intangible in nature. Privacy and security of personal data is an important factor as when less attention on privacy and security are made on a site, the consumer intention on online behaviour will significantly reduced (Chen, 2000, cited in Chih-Chung and Chang, 2005).

Secondly, the accessibility factor accounts for 19.70% of the factors. According to the result tabulated, online banking is accessible as to the information and clarity can be obtained easily and all doubts on the banking purchases can be resolved by online banking. The accessibility factors resemble advantages in online banking as accessibility in online banking is perceived as a measure of relative advantage (Poon, 2008). Customers generally have limited time to in a day and therefore want a higher degree of accessibility as well as convenience in online banking (Delvin 1995, cited in Mavri and Ioannou, 2006).

Convenience is another important factor that determine the adoption and acceptance of online banking among consumers. Convenience stand at a variance percentage of 10.36% show the importance of convenience on online banking towards society today. The study by Lee et al. (2005) revealed that convenience has a positive relationship towards online banking. Convenience also includes a 24/7 service (Lee et al., 2005) and it is important in predicting the acceptance of online behaviour regardless of online shopping or banking.

Last but not least, risk factor will affect the behaviour of a consumer towards online banking. Risk account for 5.27% variance on the factor. Perceived risk towards online purchasing behaviour is negatively associated with online purchase rate (Miyazaki and Fernandez,

2001, cited in Shergill and Chen, 2004). Risk cannot be speculated hence bank should minimize risk to boost more confidence in consumer towards online banking (Hong et al., 2013). Higher credibility leads to lower risk (Kim and Eastin, 2011) and risk bring importance in the intention and behavioural aspect of online banking.

Malaysian culture with a moderate MAS index of 50 (The Hofstede Centre, 2014) shows that Malaysian look for result and outcome. Although perceived risk, privacy and security may jeopardise their view, but resulted outcome from online banking is well known and adapted within them. As so, Malaysian are positive towards online banking. Hypothesis two is valid, whereby:

Determinant factors under consumer affection, belief and cognition have a positive relationship towards online banking behaviour.

4.4 In View of The Theory of Reasoned Action

4.4.1 Subject Norm Influence via The Theory Of Reasoned Action towards Online Banking

A relationship was tested under the subject norm on the external factors towards online banking by adapting the study by Chih-Chung and Chang (2005). Before the test began, a Cronbach's Alpha test was done on the reliability on the external influence towards online banking. Upon the 7 item tested, it reaches an Alpha value of 0.951 (see appendix 4a), validated the high reliability occurs on this test.

To analyse on the correlation between both factors, a bivariate regression analysis was done on SPSS to measure the relationship between two variables (Malhotra and Birks, 2006), namely the external influence of subject norm on online banking behaviour. Appendix 4c shows the Pearson correlation on all of the variables in the external factors of subject norm towards online banking and the result is rather satisfying. A high relationship can be seen on 'users with experience' and 'experts in the banking sector' on their behaviour towards online banking purchases with (0.758, $p < 0.05$) and (0.706, $p < 0.05$) respectively. This explains the findings by Chih-Chung and Chang (2005) that the more positive the subject norm belief, the higher the behaviour intention, thus is well adapted to the study on online banking. Relatives (0.668), friends (0.681), mentor (0.687) and family members (0.662) have a positive correlation towards influencing the online banking purchases but to compare with users with experience and experts in the banking sector, the bond will not be that strong. Online advertising on the other hand stands a low correlation whereby (0.552) value is obtained.

In the literature review on the previous chapter explains that subject norm have the influence towards a behaviour and that the stronger and the more positive the feelings towards a behaviour and the stronger the relationship and bonds between them. To sum up on the external influence in the subject norm on the banking purchasing behaviour, a total of (0.762, $p < 0.05$) (see appendix 4b) towards banking purchasing behaviour were tabulated in the study. Not only the study on the external influence is significant ($p = 0.00$), a high positivity were resulted in the study on the external influence on the subject norm towards online banking. Subject norm have the influence on the adoption of online banking in Malaysia (Yahya et al., 2007), hypothesis three is valid, whereby:

Subject Norm under the theory of reason action will possess a positive relationship towards online banking behaviour.

4.4.2 Consumer Own Compliance (Motivation To Comply) in relation to Subject Norm towards Online Banking.

Consumer motivation to comply is included in the research as the discussion done in the literature review found out the relevance in the motivation to comply factor under the influence of the theory of reasoned action is taken into account in determining behaviour. The test is done the same as the test on the subject norm research previously. A Cronbach's Alpha test is tested on 7 items and the reliability statistics is 0.968 (see appendix 5a), which represents a very high reliability on the study.

In regard to the correlation factors in each aspect on the compliance variable, it shows a very high motivation to comply relationship result on 4 items out of the 7 items tested. The relationship between 'users with experience' and 'experts in the banking sector' (see appendix 5b) stands high in the relationship towards consumer banking purchasing behaviour with 0.798 and 0.777 respectively, goes in line with the previous research on the external influence on subject norm towards online banking purchases behaviour. This research shows that authority and experienced person gives a huge advantage in influencing the behaviour of the consumer. 'Family members' and 'mentor' stands a high positivity towards the behaviour as well with the correlation score of 0.728 and 0.713 respectively. Online advertising stands the least agreement on the act upon behaviour with a relationship score of 0.635, but also predict a mild positive correlation in between them. The overall correlation of the motivation to comply towards banking behaviour is listed on Appendix 5c. A Pearson correlation score of 0.775, ($p < 0.05$) is tabulated that shows a positive relationship between the compliance on the influence of subject norm towards online banking. Malaysia have a low IDV index (The Hofstede Centre, 2014). Within a collectivist culture country like Malaysia, interpersonal relations are considered important. As so, it is

well explained on the matter of fact that subject norm possess a positive influence towards online banking behaviour, that is the hypothesis four is valid, whereby:

Consumer own compliance (motivation to comply) in relation to subject norm influence will possess a positive influence on online banking behaviour.

4.4.3 Subject Norm (Internal and External) Influence towards Online Banking

The role of social influence in technology decisions is complex and subject to a wide range of contingent influences (Venkatesh et al., 2012). Chih-Chung and Chang (2005) study found that the higher the social pressure, the higher the motivation to comply, then the higher subject norm and behavioural intentions will be. The hypothesis testing for this factor is correct and witnesses the accuracy of the test as the previous literature stated on the positive relationship between consumers' subject norm and motivation to comply towards the act of a specific behaviour. The relationship between both subject norm and motivation to comply is tested on consumer behaviour with multiple regression analysis and the result tabulated on the Durbin-Watson test is 1.855 with $F=82.692$, $p<0.05$ (appendix 6a and appendix 6b). External and internal influences on the subject norm have a positive correlation towards consumer banking behaviour. 61.6%(adjusted $R^2=0.616$) of the total variability is explained by the internal and external subject norm influence. There is a predictive positive relationship between external influence and motivation to comply towards behaviour as the coefficient significant, p are both less than 0.05 (as seen in appendix 6c). For every increase intention in the external norm, the behaviour on online banking will increase by 32.5% with constant consumer compliance factors. That goes the same for the compliance of consumer whereby every increase in the compliance will increase 41.5% towards the behaviour of the consumer with a fixed influence on external subject norm (see appendix 6c).

4.5 A Summarized Pattern Relationship between Consumer Attitude (In Line With The Theory Of Reasoned Action) and Banking Behaviour

Ajzen and Fishbein's (1980) theory of reasoned action clarify the relationship among perception, attitude and purchase intention and explain the consumers' intention to buy (Lin et al., 2009) and also serves as the basis for much of the work examining the link between attitude and behaviour, and that attitude is a crucial predictor of behavioural intention (Prendergast et al., 2010). Due to that reason, a summarized pattern relationship is done on consumer attitude with the combination of the theory of reasoned action towards online banking behaviour.

A multiple regression test was done on the entire survey question in the questionnaire distributed. The Durbin-Watson test on it approaches 2 with the value of 1.873 and regression significance of $p=.000$ (appendix 7a) prove the significance of the test without

autocorrelation in the sample. A regression model with four variables in 'affection and belief', 'cognition', 'external subject norm influence' and 'consumer compliance' explains 63% ($R^2=0.629$) of the observed variability in the conduct of the banking behaviour act (Norusis, 1990, p.390).

Although there have been several multiple testing conducted in this research, the conduct of this research on consumer attitude and behaviour is done by multiple regression but not multivariate analysis of variance (MANOVA) as there is only one population tested in the study on Malaysian consumer and that the scope of the study is on the behaviour rather than analysis of specific product type. It shows in appendix 7d on the coefficient test that there is a positive relationship on the external influence on subject norm, the motivation to comply on the consumer compliance and the affection and belief variables towards online banking behaviour. This is resulted from the positive coefficient tabulated from the test with the value of 0.323, 0.399 and 0.212 respectively. All of these data are interpreted as the increase of 1 value in behavioural action will increase 32.3% on the external subject norm influence, 39.9% on the compliance of subject norm matter as well as 21.2% of increase in the affection and belief provided the other variables are constant.

Explanation can be done on the cognition matter as the cognition is seen to be on the negative side of the coefficient value. From the research above on the cognition towards online banking, it showed positive correlations of cognition towards online banking. However, in this variable itself, risk, privacy and security factors are evaluated in one mean and tabulated to see the direct relationship of that towards behaviour. Trustworthiness is found to link to high significance of the adoption of e-banking in Malaysia (Sohrabi et al., 2013) and risk, privacy and security can be jeopardized if not secured well. As all of the literature discussed on the literature chapter that risk, privacy and security perceived would cause an issue towards online banking, this correlation is acceptable. Moreover, the negative correlation is relatively small (-.031) (see appendix 7d), with the combination of positive and negative attributes in them, the result seems promising. Cognition may have a slight negative influence on banking behaviour.

However, to sum up all the factors on consumer attitude towards banking behaviour, there seems to have a positive relationship between consumer attitudes towards online banking behaviour with the influence of the theory of reasoned action. Therefore:

Consumer attitude and subject norm influence will have positive correlation towards the Malaysian online banking behaviour.

5. Chapter Reflection

The findings rectify the research and that each hypothesis were met. Positive outcomes have reached from the research by using multiple way of analysis. The trustworthiness and validity of the research are presented in a statistical way and that every outcome have been analysed in detail.

Chapter 5

Conclusion

Consumer behaviour study has been around for many years and it touches on the main root of the research that concerns consumer attitude. Consumer attitude is divided into different dimensions; one of them that are highlighted in this research involves the consumer affection, belief and cognition area. However, online banking behaviour does not only happens from a person's own attitude itself, but the external influence will also result to their behaviour. Therefore, a main research question is constituted throughout the research, that is:

What is the correlation between Malaysian consumer attitude and subjected influence towards online banking behaviour?

Through in-depth research, several hypotheses were generated inline with the research objectives to answer to the main research questions as above. The main theory used to analyse consumer attitude towards the Malaysian online banking behaviour is the theory of reasoned action by Fishbein (1975). As the research concerns a lot of concept on correlation and relationship, several statistical methods including regression and correlation analysis were implied. A factor analysis is done to identify RO2 with the second hypothesis and several components were derived that possesses a positive relationship towards online banking behaviour. The components consist of perceived privacy and security, accessibility, convenience and risk. Furthermore, to determine the validity of the research as a whole, a reliability test were done throughout the research to investigate on the reliability and validity of the research.

Positive results were determined in the research and that the entire hypothesis proposed earlier were justified. Consumer attitude possess a positive relationship towards online banking, and the component factors of consumer affection, belief and cognition, adapted mainly from the study from Poon (2008) and Sohrabi et al. (2013) which includes: perceived security and privacy, accessibility, convenience and risk have a positive relationship towards online banking. Subject norm influence is important as well due to the fact that subject norm, regardless of the external or internal (motivation to comply) factors, possess a positive relationship towards online banking behaviour. To summarise it together, consumer attitude and subjected influence have a positive correlation towards the Malaysian online banking behaviour.

Besides focusing on the behavioural aspect of consumers, the research touched a bit on the Malaysian culture as the purpose of the context in this study is on Malaysian online banking behaviour. Hofstede score were listed out and the score brings attribute and influence towards the online banking act. Every action and data collected from the consumer brings meaning and cultural insights into it. The collectivist culture also influence the decision making of Malaysian as they will take in advises from the external subject norm factors (with high correlation score of 0.726) thus also bring high motivation to comply (0.775) towards the external pressure given into online banking behaviour.

The findings of the research go simultaneously with the means of previous research. The only contradictory factor mentioned in the previous chapter is that the cognition factors (-.031) found towards online banking in the research. The figure became negative as it lays out personal security, risk and privacy factors into it as a whole. Although Poon (2008) and Sohrabi et al. (2013) suggested a positive link towards perceived privacy and security towards online banking adoption, the minor negative coefficients in this particular research is not significant. As so, the research will still persist on the fact that consumer attitude (in cognition) have a positive relationship towards the Malaysian online banking behaviour.

The positive correlation between consumer attitude and the subjected norm in relation to the cultural explanation suggest that Malaysians are easy to conform to the environmental factors and influences. Although online advertising influence is not as strong as compared to other more humane factors with the lowest correlation of 0.552 in comparison with the others like experts in the banking sector (0.706) and users with experience (0.758), it still possess a fairly satisfactory positive relationship towards online banking in Malaysia. The managers in the banking sector can benefit from this research as the result of subjected norm shows the determining factors that influence consumer attitude and their banking intentions. The practitioners in the banking sector can also choose several modes to increase their client and consumer base in Malaysia.

Besides, consumers are sensitive towards the privacy, security and risk issue involving online banking. Malaysians see that online banking is not completely secure (mean value 3.08) and see the underlying risk in online banking. Although they are certain to disagree on the fact that online banking is very risky (mean value 2.51) and insecure (mean value 2.43), they still agree to the fact that online banking brings more advantages than disadvantages (mean value 4.05). This is a positive indicator to the banking managers and practitioners as Malaysian still feel positive of the whole idea and concept of online banking. Nevertheless,

practitioners in the banking industry can judge on the figure on this research and think of ways to improve the security and privacy of online banking to counter additional risk in the future.

All factors in affection, belief and cognition with the help of subjected norm will affect online banking consumer intention and behaviour. This research provides insight of the general concept consumer have in mind personally and then evaluate on the external influence towards their compliance on the act in online banking. Through positive relationship gathered from the entire hypothesis, banking sector practitioners can understand the Malaysian online banking at the next level, besides the adoption and acceptance research, which has been already very saturated in the online banking studies. Adoption and acceptance has been known and this research has brought online banking to the future research arena and that current banking managers and practitioner can evaluate on the entry mode of different banking product to be influenced by the Malaysian consumer as to improve the banking sector in Malaysia.

Chapter 6

Recommendations

6.1 Theoretical Implications for Consumer Attitude Research in Malaysian Online Banking

Consumer behaviour research stretches towards an array of topics. Nevertheless, it is not limited to only purchase intention or behavioural subject. Consumer attitude is less discussed especially in terms of banking behaviour. Although the current research focuses more regarding the consumer affection, belief and cognition, further research can be expanded on other aspects in consumer behaviour study. Further studies can be done towards the actual behaviour of consumer towards the consumer attitude and theory of reasoned action. Adoption and acceptance towards online banking has been discussed with several other topics but actual consumer behaviour towards online banking in Malaysia have not been research that relates to the theory of reasoned action. Future researchers can look upon those aspects that incorporate cultural dimensions in studying online banking in Malaysia.

Fontaine and Richardson (2005) explained that culture is the factors that contribute to behaviour and 91% of the cultural values at the individual level in Malaysia are shared between the three main ethnic groups (Malay, Chinese and Indian). Malaysia is a diversified country with many different culture and religion of people living together. It will be interesting to see the differences in different cultural setting towards their actual behaviour and their compliance towards online banking. The limitations of this research does not permit the exploration on the cultural factors in online banking aspect in Malaysia, therefore an exploratory study can be incorporated into study by examining the means of culture into consumer attitude and subject norm towards online banking behaviour.

Despite the online banking penetration is rather high in Malaysia with 52.2% of the population (Central Bank of Malaysia, 2013), there are still around half of the population in Malaysia which are not a subscriber of online banking. There should be consideration on the non-users' point of view into the research (Poon, 2008) to investigate on their attitude towards online banking with the subjected influence. As they are not yet users of online banking, future studies on their perception based upon their affection, belief, cognition and subject norm influence could be further investigated into research.

In the current study, it possessed a slight negative relationship on the cognition towards online banking behaviour. This is due to the fact that both positive and negative views are combined together into the initial study. Future researchers can grasp the opportunity by categorizing both positive and negative values towards consumer affection, belief and cognition into the study on consumer attitude and subject norm influence. The study by George (2004) postulates that there is a strong relationship between trust and attitude towards e-commerce. This is applicable to the current scene in online banking whereby trust factor are important for further actions to be done. A study should be based on this, besides looking into the positive and negative view of consumer, measure the degree of perceived trust in affection, belief and cognition towards online banking. This can lead to a wider branch in the research on consumer attitude and subject norm influence towards online banking behaviour in Malaysia.

6.2 Managerial Recommendations for Online Banking Providers

Attitude measures gives advantages in discovering consumers' attitude towards their product and offerings or the offerings of their competitors (Evans et al., 2009). The results tabulated in the research are suitable for practical recommendations.

Perceived privacy and security takes up to 24.77% of the total variables that bring importance towards online banking users (see table 1). Apart from the online banking infrastructure and convenience aspect of online banking, online banking providers should focus on this aspect in order to build more trust in their consumers. Financial security is considered a sensitive issue and especially when things go into a virtual environment, this aspect has to be well taken care of. Additional features can be added to ensure consumers are secure in the virtual environment although the encrypted 'http://' now helps towards online banking security.

Consumers have positive affection, belief and cognition towards the Malaysian online banking channel. However, from the research consumer have minimal usage of purchasing and trading by using the online banking channel. From the total of 103 respondents, less than half of them actually involved in the purchasing and trading activity via online banking channel. This field can be expanded more and more knowledge can be instill towards the Malaysian consumer regarding online trading activities. Online banking providers can attain more ways to attract more consumer into trading activities online through various ways, most effectively by experts in the field (77%) and experienced users (78%) which is proven by the research (see appendix 5b).

Finally, the study can be done towards other sector in general to check on the generic consumer attitude and behaviour in Malaysia. Financial institutions, besides the bank can also use the facts and figures of this study to further explain consumer attitude and subject norm within their industry coverage. Subjected norm is explained clearly in this research and that although it generally involves their decision on banking purposes, subjected norm and consumer compliance can be used to look on other factors in the financial institutions such as investments, mortgages, mobile banking as well as currency exchange. All of this will be useful in generating ideas of expanding the service and gain more customers towards the Malaysian financial related sector.

References

- Akinci, S., Aksoy, S., and Atilgan, E. (2004) 'Adoption of Internet banking among sophisticated consumer segments in an advanced developing country', *The International Journal of Bank Marketing*, 22(3), pp. 212-232.
- Arnould, E., Price, L. and Zinkhan, G.M. (2004) *Consumers*. 2nd edn. Boston: McGraw-Hill
- Barbesino, P. (2005) Digital finance in Europe: Competitive dynamics and online behaviour. *Journal of Financial Services Marketing*, 9(4), pp. 329-343.
- Babin, B. and Harris, E.G. (2012) *CB3*. Student edn. Ohio: South-Western.
- Barbesino, P., Camerani, R. and Gaudino, A. (2005) 'Digital finance in Europe: Competitive dynamics and online behaviour', *Journal of Financial Services Marketing*, 9(4), pp. 329-343.
- Bearden, W.O. and Woodside, A.G. (1977) 'Testing variations of Fishbein's behavioral intention model within a consumer behavior context', *Journal of Applied Psychology*, 62(3), pp. 352-357.
- Bellman, S., Lohse, G., Johnson, E.J. (1999) 'Predictors of online buying behaviour', *Communications of the ACM*, 42(12), pp. 32-38.
- Blaikie, N. (1995) *Approaches to social enquiry*. Cambridge: Polity Press.
- Blaikie, N. (2010) *Designing Social Research*. 2nd edn. Cambridge : Polity Press.
- Blythe, J. (2013) *Consumer behaviour*. 2nd edn. London: SAGE
- Casimir, G., Ng, Y.N.K. and Cheng, C.L.P. (2012) 'Using IT to share knowledge and the TRA', *Journal of Knowledge Management*, 16(3), pp. 461-479.
- Chen, Y. and Barnes, S. (2007) 'Initial trust and online buyer behaviour', *Industrial Management and Data Systems*, 107(1), pp. 21-36.
- Choi, J., Hui, S.K., and Bell, D.R. (2010) 'Spatiotemporal analysis of imitation behaviour across new buyers at an online grocery retailer', *Journal of Marketing Research*, pp. 75-89.
- Chih-Chung, C. and Chang, S. (2005) 'Discussion on the behavior intention model of consumer online shopping', *Journal of Business and Management*, 11, pp. 41-57.
- Collis, J. and Hussey, R. (2009) *Business research: a practical guide for undergraduate and postgraduate students*. 3rd edn. Basingstoke: Palgrave Macmillan.
- Danes, J.E. (2001) 'Attitude research and behavioral intentions: a critical review', *Advances in Consumer Research*, 8(1), pp. 57-60.
- Dennis, C., Merrilees, B., Jayawardhena, C. and Wright, L.T. (2009) 'E-consumer behaviour', *European Journal of Marketing*, 43(9), pp. 1121-1139.
- Department of Statistics Malaysia (2014) *Employment in Malaysia*. Available at:
http://www.statistics.gov.my/portal/images/stories/files/LatestReleases/employment/2014/LF_Feb_2014BI.pdf (Accessed: 1 May 2014).
- Department of Statistics Malaysia (2010) *Population Distribution and Basic Demographic Characteristic Report*. Available at:
http://www.statistics.gov.my/portal/index.php?option=com_content&id=1215 (Accessed: 1 May 2014).

Department of Statistics Malaysia (2013) *Press statement from the chief statistician office Malaysia: report on education and social characteristics of the population 2010*. Available at: http://www.statistics.gov.my/portal/images/stories/files/LatestReleases/population/Summary_Findings_on_Education_%20and_Social_Characteristics_of_the_Population_2010.pdf (Accessed: 1 May 2014).

Evans, M., Jamal, A. and Foxall, G.R. (2009) *Consumer behaviour*. 2nd edn. Chichester: Wiley.

Fontaine, R. and Richardson, S. (2005) 'Cultural values in Malaysia: Chinese, Malays and Indians compared', *Cross Cultural Management*, 12(4), pp. 63-75.

Foxall, G.R. (1993) 'Consumer behaviour as an evolutionary process', *European Journal of Marketing*, 27(8), pp. 46-57.

Galloway, L. (1999) 'Research and concepts hysteresis: a model of consumer behaviour?', *Managing Service Quality*, 9(5), pp. 360-370.

George, J.F. (2004) 'The theory of planned behaviour and Internet purchasing', *Internet Research*, 14(3), pp. 198-212.

Gray, S.J. (1988) 'Towards a Theory of Cultural Influence on the Development of Accounting Systems Internationally', *A Journal of Accounting, Finance and Business Studies*, 24(1), pp. 1-15.

Hackley, C. (2003) *Doing research projects in marketing, management and consumer research*. London: Routledge.

Hansen, T. (2008) 'Consumer values, the theory of planned behaviour and online grocery shopping', *International Journal of Consumer Studies*, 32, pp. 128-137.

Hong, H.T., Vinayan, G., Soh, C.H., Khan, N. and Ong, T.S. (2013) 'Investigating the factors influence adoption of Internet banking in Malaysia: adopters perspective', *International Journal of Business and Management*, 8(19), pp. 24-31.

Hsieh, J. and Liao, P. (2011) 'Antecedents and moderators of online shopping behaviour in undergraduate students', *Social Behaviour and Personality*, 39(9), pp. 1271-1280.

Jayawardhena, C., Wright, L.T. and Materson, R. (2003) 'An investigation of online consumer purchasing', *Qualitative Market Research: An International Journal*, 6(1), pp. 58-65.

Kaynama, S.A. and Smith, L.W. (1994) 'Predicting buying behaviour from buying intent', *Journal of Strategic Marketing*, 2, pp. 281-291.

Keisidou, E., Sarigiannidis, L. and Maditinos, D. (2011) 'Consumer characteristics and their effect on accepting online shopping, in the context of different product types', *International Journal of Business Science and Applied Management*, 6(2)

Khare, A., Singh, S., and Khare, A. (2010) 'Innovativeness/novelty-seeking behavior as determinants of online shopping behavior among Indian youth', *Journal of Internet Commerce*, 9, pp. 164-185.

Kim, J. (2012) 'Developing an empirical model of college students' online shopping behavior', *The International Journal of Interdisciplinary Social Sciences*, 6(10), pp. 81-109.

Kim, M. and Lennon, S. (2000) 'Television shopping for apparel in the United States: effects of perceived amount of information on perceived risks and purchase intentions', *Family and Consumer Sciences Research Journal*, 28(3), pp. 301-330.

Kim, S. and Eastin, M. (2011) 'Hedonic tendencies and the online consumer: an investigation of the online shopping process', *Journal of Internet Commerce*, 10, pp. 68-90.

- Laroche, M., Kim, C. and Zhou, L. (1996) 'Brand familiarity and confidence as determinants of purchase intention: an empirical test in a multiple brand context', *Journal of Business Research*, 37, pp. 115-120.
- Lassar, W.M., Manolis, C. and Lassar, S.S. (2005) 'The relationship between consumer innovativeness, personal characteristics, and online banking adoption', *International Journal of Bank Marketing*, 23(2), pp. 176-199.
- Lee, E., Kwon, K. and Schumann, D.W. (2005) 'Segmenting the non-adopter category in the diffusion of internet banking', *International Journal of Bank Marketing*, 23(5), pp. 414-437.
- Lin, C., Marshall, D., Dawson, J. (2009) 'Consumer attitudes towards a European retailer's private brand food products: an integrated model of Taiwanese consumers', *Journal of Marketing Management*, 25(9-10), pp. 875-891
- Malhotra, N.K. and Birks, D.F. (2006) *Marketing research: an applied approach*. 2nd European Edition. Harlow: Pearson Education Limited.
- Malhotra, N.K. (2010) *Marketing research: an applied orientation*. 6th en. Harlow: Pearson Education.
- Mavri, M. and Ioannou, G. (2006) 'Consumers' perspectives on online banking services', *International Journal of Consumer Studies*, 30(6), pp. 552-560.
- Miniard, P.W. (1981) 'Examining the diagnostic utility of the Fishbein behavioral intentions model', *Advances in Consumer Research*, 8(1), pp. 42-47.
- Miniard, P.W. and Page, T.J. (1984) 'Causal relationships in the Fishbein behavioral intention model', *Advances in Consumer Research*, 11(1), pp. 137-142.
- Ng, R. (2011) Malaysians the biggest online banking users in Southeast Asia. Available at: <http://www.theedgemaalaysia.com/media-a-advertising/185825-malaysians-the-biggest-online-banking-users-in-southeast-asia.html> (Accessed: 27 April 2014).
- Norusis, M.J.(1990) *The SPSS guide to data analysis for release 4*. Chicago: SPSS Inc.
- Onwuegbuzie, A. and Leech, N.L. (2005) 'On becoming a pragmatic researcher: the importance of combining quatitative and qualitative research methodologies', *International Journal Social Research Methodology*, 8(5), pp. 375-387.
- Pikkarainen, T., Pikkarainen, K., Karjaluoto, H. and Pahnla, S. (2004) 'Consumer acceptance of online banking: an extension of the technology acceptance model', *Internet Research*, 14(3), pp. 224-235.
- Poon, W. (2008) 'Users' adoption of e-banking services: the Malaysian perspective', *Journal of Business and Industrial Meeting*, 23(1), pp. 59-69.
- Porta, D.D. and Keating, M. (2008) *Approaches and methodologies in the social sciences: A pluralist perspective*. Cambridge: Cambridge University Press.
- Prendergast, G., Ko, D. and Yuen, S.Y.V. (2010) 'Online word of mouth and consumer purchase intentions', *International Journal of Advertising*, 29(5), pp. 687-708.
- Proctor, T. (2005) *Essentials of marketing research*. 4th edn. Harlow: Pearson Education Limited.
- Purdue Krannet University of Management (2014) *Hofstede score*. Available at: <http://www.krannert.purdue.edu/faculty/akcurat/teaching/mgmt690/hofstede%20scores.htm> (Accessed: 7 May 2014).

- Richardson, P.S., Jain, A.K. and Dick, A. (1996) 'Household store brand proneness a framework', *Journal of Retailing*, 72(2), pp. 159-185.
- Rodeghier, M. (1996) *Surveys with confidence*. Chicago: SPSS Inc.
- Sahney, S., Shrivastava, A. and Bhimalingam, R. (2008) 'Consumer attitude towards online retail shopping in the Indian context', *ICFAI Journal of Consumer Behaviour*, 3(4), pp. 34-68.
- Sakarya, S. and Soyer, N. (2013) 'Cultural differences in online shopping behavior: Turkey and the United Kingdom', *International Journal of Electronic Commerce Studies*, 4(2), pp. 213-238.
- Salter, S. and Niswander, F. (1995) 'Cultural Influence on the development of accounting system internationally: A Test of Gray's [1998] Theory', *Journal of International Business Studies*, 26(2), pp. 379-397
- Saunders, M., Lewis, P., Thornhill, A. (2012) *Research methods for business students*. 6th edn. Harlow: Pearson.
- Seock, Y. and Norton, M. (2007) 'Attitude toward Internet websites, online information search, and channel choices for purchasing', *Journal of Fashion Marketing and Management*, 11(4), pp. 571-586.
- Shergill, G.S. and Chen, Z. (2004) 'Shopping on the Internet – online purchase behaviour of New Zealand consumers', *Journal of Internet Commerce*, 3(4), pp. 61-77.
- Shih, Y. and Fang, K. (2004) 'The use of a decomposed theory of planned behaviour to study Internet banking in Taiwan', *Internet Research*, 14(3), pp. 213-223.
- Shim, S. and Drake, M.F. (1990) 'Consumer intention to utilize electronic shopping: the Fishbein behavioral intention model', *Journal of Direct Marketing*, 4(3), pp. 22-33.
- Sohrabi, M., Yee, J.M.Y. and Nathan, R.J. (2013) 'Critical success factors for the adoption of e-Banking in Malaysia', *International Arab Journal of e-Technology*, 2(2), pp. 76-82.
- Solomon, M.R. (2013) *Consumer behavior: buying, having, and being*. 10th edn. Harlow: Pearson Education.
- The Star Online (2013) Deputy Finance Minister: 14.6m Internet banking subscribers in Malaysia. Available at: <http://www.thestar.com.my/business/business-news/2013/10/02/deputy-finance-minister-internet-banking-subscribers-in-malaysia.aspx> (Accessed: 27 April 2014).
- The Central Bank of Malaysia (2014) *Economic and financial data for Malaysia*. Available at: http://www.bnm.gov.my/index.php?ch=ps&pg=ps_stats (Accessed: 27 April 2014).
- The Central Bank of Malaysia (2014) *Malaysia's payment statistics: Internet banking and mobile banking subscribers*. Available at: http://www.bnm.gov.my/payment/statistics/pdf/04_internet_banking.pdf (Accessed: 27 April 2014).
- The Hofstede Centre (2014) *Cultural comparison: Malaysia*. Available at: <http://geert-hofstede.com/malaysia.html>. (Accessed: 7 May 2014).
- Uta, D. and Popescu, C. (2013) 'Modeling research on consumer's attitude morphology and functional relationships of a research model for consumer's attitude', *Economic Insights – Trends and Challenges*, 4(2), pp. 36-43.
- Venkatesh, V., Thong, J.Y.L., and Xu, X. (2012) 'Consumer acceptance and use of information technology: Extending the unified theory of acceptance and use of technology', *MIS Quarterly*, 36(1), pp. 157-178.

Veronika, S. (2013) 'Motivation of Online Buyer Behaviour', *Journal of Competitiveness*, 5(3), pp. 14-30.

Wan, W.W.N., Luk, C. and Chow C.W.C. (2005) 'Customer's adoption of banking channels in Hong Kong', *International Journal of Bank Marketing*, 23(3), pp. 255-272.

Warshaw, P.R. (1980) 'A new model for predicting behavioral intentions: an alternative to Fishbein', *Journal of Marketing Research*, 17, pp. 153-172.

Yahya, D., Solucis, S.A., David, A. and Murali, R. (2007) 'The impact of e-commerce security, and national environment on consumer adoption of internet banking in Malaysia and Singapore', *Journal of Internet Banking and Commerce*, 12(2)

Yeh, J., Hsiao, K. and Yang, W. (2012) 'A study of purchasing behaviour in Taiwan's online auction websites', *Internet Research*, 22(1), pp. 98-115.

Zitkus, L. and Puskoriute, N. (2013) 'Consumer behaviour and its influence on consumer rights violations', *European Integration Studies*, 7, pp. 222-229.

Appendices

Appendix 1

Sample demographic survey: A descriptive analysis.

Appendix 1a: Gender distribution of the sample

Gender

	Frequency	Percent	Valid Percent	Cumulative Percent
Male	50	48.5	48.5	48.5
Valid Female	53	51.5	51.5	100.0
Total	103	100.0	100.0	

Appendix 1b: Age distribution of the sample

Age

	Frequency	Percent	Valid Percent	Cumulative Percent
18-25	28	27.2	27.2	27.2
25-32	29	28.2	28.2	55.3
Valid 32-39	23	22.3	22.3	77.7
more than 40	23	22.3	22.3	100.0
Total	103	100.0	100.0	

Appendix 1c: Online banking usage of the sample

Online Banking Usage

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Once a month	11	10.7	10.7	10.7
Once a week	15	14.6	14.6	25.2

3-4 times a week	36	35.0	35.0	60.2
3-4 times a month	30	29.1	29.1	89.3
More than 5 times a month	11	10.7	10.7	100.0
Total	103	100.0	100.0	

Appendix 1d: Education level of the sample

Education Level

	Frequency	Percent	Valid Percent	Cumulative Percent
O-Levels	7	6.8	6.8	6.8
A-Levels	8	7.8	7.8	14.6
Degree Level	61	59.2	59.2	73.8
Masters Level	25	24.3	24.3	98.1
PhD	2	1.9	1.9	100.0
Total	103	100.0	100.0	

Appendix 1e: Occupation of the sample

Occupation

	Frequency	Percent	Valid Percent	Cumulative Percent
0	2	1.9	1.9	1.9
Employed in a local private sector	32	31.1	31.1	33.0
Employed in an international private sector	30	29.1	29.1	62.1
Civil servant	9	8.7	8.7	70.9
Self-employed	16	15.5	15.5	86.4
Unemployed	10	9.7	9.7	96.1

Others	4	3.9	3.9	100.0
Total	103	100.0	100.0	

Appendix 1f: Past behaviour on the purpose of online banking on the samples

Previous Online Banking Purposes Frequencies

		Responses		Percent of Cases
		N	Percent	
Online Banking Purposes ^a	View balance and transaction history	98	19.8%	95.1%
	Pay bills	91	18.4%	88.3%
	Transfer funds between accounts	91	18.4%	88.3%
	Manage current and savings account	76	15.4%	73.8%
	Manage Trade	50	10.1%	48.5%
	Stock Trading	42	8.5%	40.8%
	To compare stock and funds	45	9.1%	43.7%
	Others	2	0.4%	1.9%
Total		495	100.0%	480.6%

a. Dichotomy group tabulated at value 0.

Appendix 1g: Past online banking purchases of the sample

Past Online Banking Purchases Frequencies

		Responses		Percent of Cases
		N	Percent	
Past Online Banking Purchases ^a	Funds	69	26.5%	70.4%
	Shares	46	17.7%	46.9%
	Trade Exchange	48	18.5%	49.0%

	Banking Service Upgrade	57	21.9%	58.2%
	Forex	35	13.5%	35.7%
	Others	5	1.9%	5.1%
Total		260	100.0%	265.3%

a. Dichotomy group tabulated at value 0.

Appendix 2

Consumer attitude (affection, belief, cognition) toward online banking : Multiple regression analysis

Appendix 2a: Reliability statistics for belief and affection variable

Reliability Statistics for Belief and Affection

Cronbach's Alpha	N of Items
.742	12

Appendix 2b: Reliability statistics for cognition variable

Reliability Statistics for cognition

Cronbach's Alpha	N of Items
.760	12

Appendix 2c: Descriptive statistics for Belief and Affection variables of the sample

Descriptive Statistics for Belief and Affection

	N	Mean
Reduces trouble of going to bank offline	103	4.39
Save time and increase quality time	103	4.13
Surfing without time pressure	103	4.12
Satisfied and sense of achievement	103	4.07
Serve curiosity	103	3.99
Reduce time cost	103	3.99
More emphasis and clarity	103	3.80
Buy particular or unique commodities	103	3.79
Security issues	103	2.78
Pressure purchasing because of fluctuation in price	103	2.72
Temptation in purchasing and interrupt budget planning	103	2.68

Legit issue in online web and network	103	2.55
Offline serves better purpose than online banking	103	2.39
Valid N (listwise)	103	

Appendix 2d: Descriptive statistics for Cognition variable of the sample

Descriptive Statistics for Cognition

	N	Mean
More advantage than disadvantage	103	4.05
Better offer in trading services	103	3.79
Better in analytical skills	103	3.71
Serves advantages, but there is still risk underlying	103	3.27
Not completely safe	103	3.08
Mishap and not completely secure in the virtual environment	103	2.91
Personal and financial security will jeopardise the future of online banking	103	2.73
Personal information leaked	103	2.68
Online banking is very risky	103	2.51
Online banking is insecure	103	2.43
Gives more disadvantages than advantages	103	2.15
Valid N (listwise)	103	

Appendix 2e: Durbin-Watson test on Cognition, Affection and Belief

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.305 ^a	.093	.075	.99618	1.604

a. Predictors: (Constant), AB_r, Cog_r

b. Dependent Variable: behaviour

Appendix 2f: ANOVA test on Cognition, Affection and Belief

ANOVA^a

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	10.194	2	5.097	5.136	.008 ^b
Residual	99.238	100	.992		
Total	109.432	102			

a. Dependent Variable: behaviour

b. Predictors: (Constant), AB_r, Cog_r

Appendix 2g: Coefficients of Cognition, Affection and Belief

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	.759	.941		.807	.422
Cognition	.230	.238	.109	.966	.336
Affection and belief	.581	.280	.233	2.071	.041

a. Dependent Variable: behaviour

Appendix 3

Components of consumer affection, belief and cognition: A factor analysis.

Appendix 3a: Kaiser-Meyer-Olkin (KMO) and Bartlett's Test

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.750
Approx. Chi-Square		1270.403
Bartlett's Test of Sphericity	df	231
	Sig.	.000

Appendix 3b: Inter-correlations in the four factors solution

Component Correlation Matrix

Component	1	2	3	4
1	1.000	-.076	-.014	.363
2	-.076	1.000	.190	-.143
3	-.014	.190	1.000	-.018
4	-.261	-.063	-.135	1.000
5	.363	-.143	-.018	1.000

Extraction Method: Principal Component Analysis.

Rotation Method: Oblimin with Kaiser Normalization.

Appendix 3c: Reliability statistics for factor one

Reliability Statistics

Cronbach's Alpha	N of Items
.874	8

Appendix 3d: Reliability statistics for factor two

Reliability Statistics

Cronbach's Alpha	N of Items
.732	9

Appendix 3e: Reliability statistics for factor three

Reliability Statistics

Cronbach's Alpha	N of Items
.815	6

Appendix 3f: Reliability statistics for factor four

Reliability Statistics

Cronbach's Alpha	N of Items
.821	5

Appendix 3g: Eigenvalues and total variance explained

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings ^a
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	5.448	24.766	24.766	5.448	24.766	24.766	4.453
2	4.335	19.703	44.469	4.335	19.703	44.469	3.953
3	2.278	10.353	54.822	2.278	10.353	54.822	3.289
4	1.159	5.268	68.346	1.159	5.268	68.346	3.298

Extraction Method: Principal Component Analysis.

a. When components are correlated, sums of squared loadings cannot be added to obtain a total variance.

Appendix 3h: Pattern Matrix

Pattern Matrix

	Components			
	1	2	3	4
Legit issue in online web and network	.872			
Security issues	.834			
Mishap and not completely secure in the virtual environment	.653			
Serves advantages, but there is still risk underlying	.540	-.409		
Offline serves better purpose than online banking	.638	.320		
Personal and financial security will jeopardise the future of online banking	.538			.431
Not completely safe	.531			.366
Serve curiosity		.625		
More emphasis and clarity		.842		
Better offer in trading services		.890		
Better in analytical skills		.854		
Satisfied and sense of achievement		.350	.521	
Reduce time cost		.439	.524	
Buy particular or unique commodities		.313	.491	
Save time and increase quality time			.773	
Reduces trouble of going to bank offline			.876	
Surfing without time pressure			.734	
Online banking is insecure				.873
Online banking is very risky				.812
Personal information leaked	.329			.543

Extraction Method: Principal Component Analysis.

Rotation Method: Oblimin with Kaiser Normalization.

a. Rotation converged in 15 iterations.

Appendix 4

Subject norm influence via the theory of reasoned action towards online banking: A bivariate regression analysis

Appendix 4a: Reliability statistics for external influence

Reliability Statistics

Cronbach's Alpha	N of Items
.951	7

Appendix 4b: Correlations between external influence and behaviour

Correlations

		Ex_influence	behaviour
Ex_influence	Pearson Correlation	1	.762**
	Sig. (2-tailed)		.000
	N	103	103
behaviour	Pearson Correlation	.762**	1
	Sig. (2-tailed)	.000	
	N	103	103

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

Appendix 4c: Pearson correlations on each variable in external subject norm towards behaviour

Correlations

		Relative influence in online banking purchases	Friends influence in online banking purchases	Mentor influence in online banking purchases	Family members influence in online banking purchases	Online advertising influence in online banking purchases	Experts in the banking sector influence in online banking purchases	Users with experience influence in online banking purchases	behaviour
Relative influence	Pearson Correlation	1	.862**	.849**	.840**	.625**	.775**	.719**	.668**

in online banking purchases	Sig. (2-tailed)		.000	.000	.000	.000	.000	.000	.000
	N	103	103	103	103	103	103	103	103
Friends influence in online banking purchases	Pearson Correlation	.862**	1	.799**	.795**	.663**	.727**	.749**	.681**
	Sig. (2-tailed)	.000		.000	.000	.000	.000	.000	.000
	N	103	103	103	103	103	103	103	103
Mentor influence in online banking purchases	Pearson Correlation	.849**	.799**	1	.861**	.620**	.718**	.704**	.687**
	Sig. (2-tailed)	.000	.000		.000	.000	.000	.000	.000
	N	103	103	103	103	103	103	103	103
Family members influence in online banking purchases	Pearson Correlation	.840**	.795**	.861**	1	.617**	.746**	.723**	.662**
	Sig. (2-tailed)	.000	.000	.000		.000	.000	.000	.000
	N	103	103	103	103	103	103	103	103
Online advertising influence in online banking purchases	Pearson Correlation	.625**	.663**	.620**	.617**	1	.655**	.649**	.552**
	Sig. (2-tailed)	.000	.000	.000	.000		.000	.000	.000
	N	103	103	103	103	103	103	103	103
Experts in the banking sector influence in online banking purchases	Pearson Correlation	.775**	.727**	.718**	.746**	.655**	1	.805**	.706**
	Sig. (2-tailed)	.000	.000	.000	.000	.000		.000	.000
	N	103	103	103	103	103	103	103	103
Users with experience influence in online banking purchases	Pearson Correlation	.719**	.749**	.704**	.723**	.649**	.805**	1	.758**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000		.000
	N	103	103	103	103	103	103	103	103
behaviour	Pearson Correlation	.668**	.681**	.687**	.662**	.552**	.706**	.758**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	
	N	103	103	103	103	103	103	103	103

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

Appendix 5

Consumer own compliance (motivation to comply) in relation to subject norm towards online banking: A bivariate regression analysis

Appendix 5a: Reliability statistics for own compliance

Reliability Statistics for own compliance

Cronbach's Alpha	N of Items
.968	7

Appendix 5b: Pearson correlations on each variable in internal consumer compliance influence
towards behaviour

Correlations

		Get influenced easily by relatives	Get influenced easily by friends	Get influenced easily by mentor	Get influenced easily by family members	Get influenced easily by online advertising	Get influenced easily by experts in the banking sector	Get influenced easily by experienced users	behaviour
Get influenced easily by relatives	Pearson Correlation	1	.908**	.914**	.861**	.721**	.748**	.707**	.653**
	Sig. (2- tailed)		.000	.000	.000	.000	.000	.000	.000
	N	103	103	103	103	103	103	103	103
Get influenced easily by friends	Pearson Correlation	.908**	1	.868**	.846**	.765**	.752**	.760**	.671**
	Sig. (2- tailed)	.000		.000	.000	.000	.000	.000	.000
	N	103	103	103	103	103	103	103	103
Get influenced easily by mentor	Pearson Correlation	.914**	.868**	1	.895**	.791**	.842**	.791**	.713**
	Sig. (2- tailed)	.000	.000		.000	.000	.000	.000	.000
	N	103	103	103	103	103	103	103	103

Get influenced easily by family members	Pearson Correlation	.861**	.846**	.895**	1	.792**	.881**	.812**	.728**
	Sig. (2-tailed)	.000	.000	.000		.000	.000	.000	.000
	N	103	103	103	103	103	103	103	103
Get influenced easily by online advertising	Pearson Correlation	.721**	.765**	.791**	.792**	1	.746**	.733**	.635**
	Sig. (2-tailed)	.000	.000	.000	.000		.000	.000	.000
	N	103	103	103	103	103	103	103	103
Get influenced easily by experts in the banking sector	Pearson Correlation	.748**	.752**	.842**	.881**	.746**	1	.916**	.777**
	Sig. (2-tailed)	.000	.000	.000	.000	.000		.000	.000
	N	103	103	103	103	103	103	103	103
Get influenced easily by experienced users	Pearson Correlation	.707**	.760**	.791**	.812**	.733**	.916**	1	.798**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000		.000
	N	103	103	103	103	103	103	103	103
behaviour	Pearson Correlation	.653**	.671**	.713**	.728**	.635**	.777**	.798**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	
	N	103	103	103	103	103	103	103	103

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

Appendix 5c: Pearson correlation between internal influence (consumer compliance) towards behaviour

Correlations

	In_influence	behaviour
In_influence	Pearson Correlation	1
	Sig. (2-tailed)	.775**
	N	.000
behaviour	Pearson Correlation	103
	Sig. (2-tailed)	103
	N	.775**

N	103	103
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** . Correlation is significant at the 0.01 level (2-tailed).

Appendix 6

Subject norm (internal and external) influence towards online banking : A multiple regression analysis

Appendix 6a: Durbin-Watson test

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.789 ^a	.623	.616	.64215	1.855

a. Predictors: (Constant), In_influence, Ex_influence

b. Dependent Variable: behaviour

Appendix 6b: ANOVA test

ANOVA^a

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	68.197	2	34.098	82.692	.000 ^b
Residual	41.236	100	.412		
Total	109.432	102			

a. Dependent Variable: behaviour

b. Predictors: (Constant), In_influence, Ex_influence

Appendix 6c: Coefficients on external and internal influence variable towards behaviour

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	1.263	.211		5.990	.000
Ex_influence	.325	.133	.340	2.433	.017
In_influence	.415	.123	.470	3.369	.001

a. Dependent Variable: behaviour

Appendix 7

A summarized pattern relationship between consumer attitude (in line with the theory of reasoned action) and banking behaviour : A multiple linear regression analysis

Appendix 7a: Durbin-Watson test

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.793 ^a	.629	.614	.64375	1.873

a. Predictors: (Constant), AB_r, Ex_influence, Cog_r, In_influence

b. Dependent Variable: behaviour

Appendix 7b: ANOVA test

ANOVA^a

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	68.820	4	17.205	41.517	.000 ^b
Residual	40.612	98	.414		
Total	109.432	102			

a. Dependent Variable: behaviour

b. Predictors: (Constant), AB_r, Ex_influence, Cog_r, In_influence

Appendix 7c: Coefficients on external influence, internal influence, cognition and affection and belief variables.

ANOVA^a

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	68.820	4	17.205	41.517	.000 ^b
Residual	40.612	98	.414		
Total	109.432	102			

a. Dependent Variable: behaviour

b. Predictors: (Constant), AB_r, Ex_influence, Cog_r, In_influence

Appendix 7d: Coefficients between external influence, internal influence, cognition and affection an belief towards behaviour.

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	.628	.611		1.028	.307
Ex_influence	.323	.135	.337	2.397	.018
In_influence	.399	.124	.452	3.213	.002
Cog_r	-.031	.156	-.015	-.199	.843
AB_r	.212	.184	.085	1.148	.254

a. Dependent Variable: behaviour

Appendix 8

Participants consent form and questionnaire



Programme of Study: MBA International Business

Title of Project: **Consumer attitude under the subject norm influence towards online banking behaviour: The Malaysian context.**

Dear Participant,

You are being invited to take part in a research study. Before you decide whether to participate, it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and ask us if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part.

The purpose of the study is to look at the consumer attitude towards online banking behaviour. You are chosen on the survey as to your prior experience in online banking.

You are required to answer a questionnaire that consists of different section that is outlined. Each section consists of different parts that measure different aspect in the research. It will take approximately 20 to 30 minutes to complete the whole set of questionnaire.

Participants will have the advantage of participating in a research activity that will be taken account on. Future research will then be used by organisations that wish to expand or improve their online business. Your involvement will help significantly in the transformation of online purchasing and that your need will be heard and considered by the merchant to improve your online purchasing experience in the future.

There will be no risk or disadvantages of taking part in the research.

You are under no obligation to participate in this study. If you do decide to take part, you are free to withdraw at any time without giving a reason. If you do not take part or withdraw from the study at a later date, it will not disadvantage you.

Your participation in this study and all information collected will be kept strictly confidential. Where necessary, information collected will be coded so that you cannot be recognised from it. The results of this study will be reported as part of my degree programme and may be further disseminated for scientific benefit. The results will be available to you on request.

If you have further information or any problems/ concern regarding the research you may contact:

Min Shiew KIN (u1251668@uel.ac.uk)

Section 1: Consumer demography



Gender	Male	Female			
Age (years)	18-25	25-32	32-39	>40	
Online Banking Usage	Once a week	3-4 times a week	Once a month	3-4 times a month	More than 5 times a month
Education Level	O- Levels	A- Levels	Degree Level	Masters Level	PhD
Why did you choose online banking (you may choose more than one)	View balance and transaction history	Pay bills	Transfer funds between accounts	Manage current and saving accounts	Stock trading (Purchase shares, funds)
	To compare stocks and funds	Others: (Please specify)			
Online banking purchase previously made:	Funds	Shares	Trade exchange	Banking service upgrade (Insurance etc)	Forex
	Others: (Please specify)				

Section 2: Analyzing consumer attitude using Theory of Reasoned Action on the online buying behaviour in the banking sector (Adapted from: Chih-Chung and Chang, 2005)

Consumer own cognition

No.	Question	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	Online banking can serve my curiosity in getting the right detail and answer for banking related services (shares, funds, trade exchange, Forex).					
2	Online banking helps me to obtain more emphasis and clarity at buying commodities than offline bank branch.					
3	Online banking makes me feel satisfied and a sense of achievement after completing the banking task I want to with a click of a finger.					
4	Online banking reduces the					

	trouble of going to bank offline (traffic, parking, streams of people)					
5	Online banking gives me advantage of surfing the commodities without time pressure.					
6	Online banking helps to reduce the time cost of searching product information.					
7	Online banking helps me to buy particular or unique commodities offered online only.					
8	Online banking save time and increases my quality time in other aspects of life.					
9	Online banking makes me more tempted to purchase funds, stocks and shares and hence interrupt my budget planning.					
10	Online banking brings me pressure in buying commodities there and then when I see the price fluctuates at a fast pace.					
11	Online banking is not particularly the best options for me as I think that offline bank branch serves a better purpose than online banking.					
12	Online banking is not the best options for me as I think that there will be issues on the legit factors of the online web and network.					
13	Online banking is not the best option for me as I think that there will be major security issues if the computer is hacked.					

Consumer own belief and affection

No.	Question	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1(15)	I feel that online banking provides better offer in terms of trading services (Forex, trade exchange, shares, funds).					
2(16)	I feel that online banking brings more advantage than disadvantage to me.					
3(17)	I feel that online banking is insecure.					
4(18)	I feel that online banking is risky.					
5(19)	I feel that online banking gives more disadvantage than advantage.					
6(20)	I feel that online banking is risky as to my personal information may be leaked.					
7(21)	I believe that online banking and purchases is safe to a certain aspect.					
8(22)	I believe that there will be mishap in the online banking sector and that I am not completely secure in the virtual environment.					
9(23)	I believe that although online banking and purchases serves advantages, there is still risk underlying it.					
10(24)	I believe that online banking makes me better in my analytical skills.					
11(25)	I believe that personal and financial security in the virtual environment will jeopardise the good feature of online banking.					

People On The External Parties

No.	Question	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	My relatives influence me in my online banking purchases.					
2	My friends influence me in my online banking purchases.					
3	My mentor influences me in my online banking purchases.					
4	My family members influence me in my online banking purchases.					
5	Online advertising influences me in my online banking purchases.					
6	Experts in the banking sector influence me in my online banking purchases.					
7	Users with experience influences me in my online banking purchases.					

Consumer Own Compliance

No.	Question	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	I get influenced easily by my relatives to undergo online banking purchases.					
2	I get influenced easily by my friends to undergo online banking purchases.					
3	I get influenced easily by my mentor to undergo online banking purchases.					
4	I get influenced easily by my family members to undergo online banking purchases.					
5	I get influenced easily by online advertising to undergo online banking purchases.					
6	I get influenced easily by experts in the banking sector to undergo online banking purchases.					
7	I get influenced easily by experienced users in online banking to undergo online banking purchases.					

Online Banking Behaviour

No.	Question	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	I will do online banking purchases based on the influence by other people and external factors from the environment)					
2	I will do online banking purchases based on the influence my own interpretation through the influence captured from the external surroundings.					